UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
WASHINGTON, DC 20555-0001

December 27, 1996

NRC INFORMATION NOTICE NO. 96-71: LICENSEE RESPONSE TO INDICATIONS OF TAMPERING, VANDALISM, OR MALICIOUS MISCHIEF

Addressees

All holders of operating licenses or construction permits for nuclear power reactors.

Purpose

This information notice is being issued to alert licensees to the benefits of planning a response to indications of tampering, vandalism, or malicious mischief. It is expected that recipients will review the information for applicability to their facilities and consider actions, as appropriate. However, suggestions contained in this information notice are not NRC requirements; therefore, no specific action or written response is required.

Description of Circumstances

Recent events at operating reactors indicate that some licensee personnel may not recognize the potential significance of early indications of potential tampering, vandalism, or malicious mischief. As a result, licensee response may be untimely and of limited scope and depth. Failure to promptly question, resolve the significance and implement an appropriate strategy to mitigate the consequence of a potential tampering, vandalism, or malicious mischief situation, could leave the plant in a vulnerable state for a significant period of time. Lack of detailed planning, procedures, and training frequently plays a role in the quality of response to these events. Brief accounts of two events illustrate the issue:

Improperly Positioned Valve at Beaver Valley

During the conduct of a quarterly surveillance on Friday, July 14, 1995, to verify the position of certain safety-related locked valves; the licensee determined that the service water cross-connect valve at the discharge of the recirculation spray heat exchanger was in the incorrect position (shut in lieu of open), that the chain used to secure the valve in the proper position had been cut, and that the lock appeared to have been placed back on the chain in a manner that made it difficult to detect the condition. The licensee's staff initially assumed the valve had been inadvertently mispositioned during earlier operational evolutions, but subsequent interviews and analysis were unable to confirm this assumption.

Licensee management first learned of the event on Tuesday, July 18, 1995. Consequently, licensee management was not able to oversee the licensee evaluation of the event until considerable time had elapsed. The licensee's determination that potential tampering could not be ruled out was not made until six days after the incorrect valve position was identified. Thorough valve lineup checks and locked valve surveillances were not completed for both Beaver Valley units until after the plant staff made an emergency notification system (ENS) call on Thursday evening, July 20, 1995. The similarity of this event to an event in the early 1980s heightened the concern of both licensee and NRC personnel who knew of the previous events.

Misadjusted Valves and Disabled Locks at St. Lucie

In May 1996, St. Lucie personnel identified two pressure-relief valves which, when tested, were found to have pressure setpoints 55 percent and 9 percent above their design values. These valves also had broken wire seals. The root cause could not be determined. Although tampering could not be ruled out, it was concluded that the more likely cause for the misadjusted valves was poor maintenance. Licensee management decided to alert the Security force; however, site Security was not notified. The failure to follow through on alerting site Security precluded coordinated actions of Operations and Security staffs to enhance awareness to other possible tampering events.

On July 26, 1996, St. Lucie staff identified nine padlocks and two door locks in vital areas that were intentionally damaged to inhibit opening the locks. These locks controlled personnel access to various pieces of plant equipment. The licensee did not identify keylock switches as needing to be checked; consequently, these switches were not checked until August 1996. Although the tampering of components within a vital area indicated the need to be alert to additional tampering, other than alerting Security, the licensee failed to consider additional measures to detect tampering. On August 14, 1996, St. Lucie staff identified three additional examples of tampering in vital areas that inhibited the opening of locks associated with safety-related equipment.

Discussion

The following factors may have contributed to these events:

(1) The licensees' contingency plans required by 10 CFR 73.55(h)(1) and the implementing procedures required by Appendix C to Part 73 did not adequately address tampering, vandalism, and malicious mischief. Other licensee procedures touched some aspects of these situations; however, no plan or process was used to evaluate the potential malevolent event and determine its importance. Factors such as safety significance, overtness, intent, sophistication of method, and the history of similar incidents were not considered. Information Notice 83-27, "Operational Response to Events Concerning Deliberate Acts Directed Against Plant Equipment," described events in which licensees were not prepared to assess the situation and take necessary steps to ensure the operability of systems important to safety or make decisions concerning continued operation. The information notice indicated that guidelines or procedures prepared by the licensee outlining a process of

following up on both deliberate and inadvertent acts with respect to plant operation should be available.

(2) The licensees' actions were limited in scope and depth, at least initially, in pursuing the events.

(3) The licensees' Operations staff were not sensitive to abnormalities identified earlier and apparently assumed no malice. Since the Operations staff may be the first to encounter signs of tampering, vandalism, or malicious mischief during its tours and surveillance activities, sensitivity to precursors plays a key role in timely response to events of this nature. Therefore, licensees may wish to periodically refresh their Operations staff's sensitivity to and awareness of the evaluation process to ensure effective response to these acts.

(4) The licensee's Security staff was not told about these problems until well into the sequence of events at St. Lucie. Security's ability to identify the perpetrator(s) and institute other protective measures diminishes severely as time elapses.

Events of this nature are required by Appendix G to Part 73 of 10 CFR to be reported to the NRC Operations Center within one hour of discovery.

This information notice requires no specific action or written response. If you have any questions about the information in this notice, please contact one of the technical contacts listed below or the appropriate Office of Nuclear Reactor Regulation project manager.

/s/ B. B. Matthews

for Thomas T. Martin, Director
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Office of Nuclear Reactor Regulation

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LIST OF RECENTLY ISSUED NRC INFORMATION NOTICES

Information Notice No.	Subject	Date of Issuance	Issued to
96-70	Year 2000 Effect on Computer System Software	12/24/96	All U.S. Nuclear Regulatory Commission licensees, certificate holders, and registrants
96-69	Operator Actions Affecting Reactivity	12/20/96	All holders of OLs or CPs for nuclear power reactors
96-68	Incorrect Effective Diaphragm Area Values in Vendor Manual Result in Potential Failure of Pneumatic Diaphragm Actuators	12/19/96	All holders of OLs or CPs for nuclear power reactors
96-67	Vulnerability of Emergency Diesel Generators to Fuel Oil/Lubricating Oil Incompatibility	12/19/96	All holders of OLs or CPs for nuclear power reactors
96-66	Recent Misadministrations Caused by Incorrect Calibrations of Strontium-90 Eye Applicators	12/13/96	All U.S. Nuclear Regulatory Commission Medical Use Licensees authorized to use strontium-90 (Sr-90) eye applicators
96-65	Undetected Accumulation of Gas in Reactor Coolant System and Inaccurate Reactor Water Level Indication During Shutdown	12/11/96	All holders of OLs or CPs for nuclear power reactors

OL = Operating License
CP = Construction Permit

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original signed by D.B. Matthews

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