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POLICY ISSUE

(NEGATIVE CONSENT)

October 6, 1993

SECY-93-275

FOR: The Commissioners

FROM: James M. Taylor
Executive Director for Operations

SUBJECT: IMPLEMENTING SERVICE WATER SYSTEM OPERATIONAL PERFORMANCE
INSPECTIONS (SWSOPIs)

PURPOSE:

To respond to the Commission's staff requirements memorandum (SRM) of November 23, 1992, regarding a progress report on the SWSOPIs discussing the staff's findings during inspections and the need for continuing the inspections at the currently planned resource expenditure rate.

BACKGROUND:

SECY-92-355 dated October 20, 1992, reported on the results of the initial four pilot SWSOPIs. The staff recommended that SWSOPIs be conducted as an area-of-emphasis inspection at plants licensed before 1979 and at plants licensed in 1979 and later if they have service water system (SWS) problems or more general maintenance, engineering, or technical support problems. The inspection teams were to be comprised of a team leader and four inspectors covering such areas as design, operations, maintenance, surveillance and testing. For plants with complex electrical distribution system supplies to SWS equipment, an electrical engineer might be added to the team.

The SRM of November 23, 1992, which responded to SECY-92-355, requested that the team size be reexamined to determine if a smaller team could be used and to advise the Commission at the end of FY93 of the staff's findings and the need for continuing SWSOPIs at the currently planned resource expenditure rate.

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NOTE: TO BE MADE PUBLICLY AVAILABLE
WHEN THE FINAL SRM IS MADE
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DISCUSSION:

Temporary Instruction (TI) 2515/118, "Service Water System Operational Performance Inspection (SWSOPI)," was transmitted to regional administrators by a memorandum emphasizing the Commission's request regarding limiting team size. The memorandum emphasized that TI Section 11.03, Inspection Latitude, states that evaluation may show that inspection scope and inspection resources can be reduced at sites where in-depth NRC inspections have been recently performed in the areas addressed by the TI. Based on this guidance, the scope and/or team size of the Arkansas Nuclear One and Duane Arnold SWSOPIs, planned for FY94, will be reduced by taking credit for recent NRC inspections that covered portions of the TI.

Staff resources for SWSOPIs have been minimized by the approach stated in the TI (clarified by Revision 1) of generally inspecting only plants licensed before 1979 unless newer plants are perceived to have SWS problems or more general maintenance, engineering, or technical support problems. This approach has resulted in only six SWSOPIs being conducted by the regions during FY93, as indicated below.

Following the completion of the five pilot inspections, regional SWSOPIs were conducted at Dresden, H.B. Robinson, Nine Mile Point, Point Beach, and Farley. A SWSOPI at Davis Besse began on September 27, 1993. The resources utilized are as follows:

<u>Plant</u>	<u>Resources</u>	<u>Comments</u>
Dresden	Team leader 4 inspectors 1 part-time inspector	Part time inspector for maintenance obser- vation due to physical limi- tation of another inspector.
H.B. Robinson	Team leader 4 inspectors 1 part-time inspector	Part time inspector for PRA application.
Nine Mile Point (2 units)	Team leader 3 inspectors 1 part-time inspector Co-op student part-time	Co-op student's time not charged to licensee. Part time inspector for materials inspection.

Point Beach	Team leader 4 inspectors 1 NRR intern 1 inspector trainee	25% of intern time and 50% of inspector trainee time charged to licensee; remainder charged to training
Farley (2 units)	Team leader 5 inspectors	Five inspectors because of dual unit site with separate SWSs having different pump manufacturers and pump motor cooling systems.
Davis Besse	Team leader 4 inspectors	

In general, regions followed the TI guidance for a team leader plus four inspectors and added personnel on a case-by-case basis. Additional personnel were either for the purpose of inspector training or part-time due to special circumstances. Farley and Nine Mile Point were dual unit inspections. Five inspectors were used for Farley, and resources were effectively reduced for Nine Mile Point, as discussed below.

To reduce inspection resources, the staff has developed a process that utilizes the results of licensee self-assessments. This process will be available for use where licensees demonstrate good performance, as indicated by their SALP ratings. Other licensees who are not on the "watch list" will be considered on a case-by-case basis. The staff will utilize a licensee's self-assessment effort to supplement a reduced scope in an area-of-emphasis inspection such as a SWSOPI. Inspection Procedure (IP) 40501 dated August 12, 1993 covers this process. IP 40501 includes a review of the licensee's self-assessment proposal; a staff in-process inspection of the licensee self-assessment; and a final staff inspection of selected areas addressed in the self-assessment, significant TI areas not addressed in the self-assessment, and licensee corrective actions.

The resource goal for the staff effort under IP 40501 is 25 percent of the normal SWSOPI effort, which can be achieved by reducing both team size and inspection duration to half the normal level. This goal may not be achievable at all sites because it is dependent on licensee performance and the scope of the self-assessment. For example, at Nine Mile Point, Units 1 and 2, the staff reduced the SWSOPI scope in recognition of the licensee's self-assessments of both units. The Nine Mile Point inspection was the equivalent of two SWSOPIs because there are substantial differences in the service water systems of each unit. Unit 2, a post-1979 facility, was inspected as a result of known problems, such as reduced thermal capacity heat exchangers and area coolers. Unit 1 was licensed before 1979. The team size and inspection duration were less than normal for a SWSOPI at a single plant, and less than one half of the normal SWSOPI effort was expended on each plant. On the basis

of the licensee's overall performance, further reduction was impractical. In addition, the licensee's self-assessments were performed before IP 40501 was developed. Therefore, the staff did not review the licensee's proposal for the self-assessments and perform in-process monitoring of both self-assessments to further minimize staff resources.

The staff evaluated the SWSOPI findings and determined that their number and significance indicate that SWSOPIs should continue at the current normal resource level of a team leader and four inspectors, with resource reductions to reflect the results of other related NRC inspections and licensee self-assessments as previously described. The findings indicate trends where similar safety issues have been identified at several plants, as noted below.

One safety issue concerns the evaluation of heat transfer requirements. These findings, involving four plants, pertained to inadequate analyses of the heat loads to be removed by the SWS, inadequate evaluation of the performance of heat exchangers and room coolers, and inadequate verification of hydraulic analyses.

Another safety issue concerns testing programs and procedures. These findings, involving five plants, pertained to failure to perform tests as required by the inservice testing (IST) program, failure to include safety-related components in the IST program, failure to test SWS components to verify functional capabilities, and use of inappropriate test acceptance criteria.

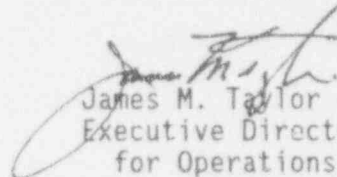
In addition, the SWSOPIs identified examples at all plants inspected where licensees have not satisfactorily implemented the actions requested by Generic Letter 89-13, "Service Water System Problems Affecting Safety-Related Equipment."

The staff is developing an Information Notice to apprise licensees of these inspection findings. The staff plans to review the results and effectiveness of the SWSOPIs after approximately one-third have been conducted to determine whether any further regulatory actions are required. The SWSOPI findings, as well as those of the Electrical Distribution System Functional Inspections (the previous area-of-emphasis inspection), have indicated weaknesses with licensee engineering and technical support (E&TS) activities. In that regard, the staff is developing an Inspection Procedure to evaluate such licensee activities, including the application to plant modifications.

RECOMMENDATION:

Unless the Commission advises to the contrary within 10 working days from the date of this paper, the staff plans to continue implementing TI 2515/118, Revision 1, which would result in conducting SWSOPIs through September 1, 1996, as an area-of-emphasis inspection at plants licensed before 1979 and at newer plants that are perceived to have SWS problems or more general maintenance, engineering, or technical support problems. Consistent with the

guidance in the SRM, inspection resources will be minimized to the extent feasible by performing reduced scope inspections at plants where (1) in-depth NRC inspections have recently been performed in the areas addressed by the TI or (2) licensees perform self-assessments covering areas addressed by the TI.


James M. Taylor
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SECY NOTE: In the absence of instructions to the contrary, SECY will notify the staff on Friday, October 22, 1993, that the Commission, by negative consent, assents to the action proposed in this paper.

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