

Installation of the lift indicating switch assemblies is presently planned for the spring 1982 refueling of Unit 2 and the fall 1982 refueling of Unit 1.

II.E.1.1 AUXILIARY FEEDWATER SYSTEM EVALUATION

Over the past several years, the NRC has requested information regarding the design, instrumentation and operation of the auxiliary feedwater (AFW) systems for the Point Beach Nuclear Plant, Units 1 and 2 (References 1, 2, 3, 4a, 12, and 24). Wisconsin Electric has responded to these requests and provided the necessary information to satisfy each point raised. The only remaining item to be addressed is that of automatic protection of the AFW pumps if the AFW system water supplies are not completely protected from damage following a seismic event or tornado.

Wisconsin Electric continues to maintain the position that the condensate storage tanks, although not Class I water sources, are reliable and designed to specific, adequate seismic criteria. In the absence of NRC acceptance of this as sufficient, we have subsequently agreed to study the feasibility and desirability of providing pump protection through automatic AFW pump trips on low suction pressure as an alternative to automatic switchover, which would decrease rather than increase system reliability.

Wisconsin Electric has reluctantly decided to implement the automatic AFW pump trips as part of the instrumentation effort in progress. We have completed the basic design of the AFW suction pressure instrumentation channels. The procurement of safety-grade, environmentally qualified equipment is in progress and installation will be integrated with the other instruments, equipment and cable routing. Implementation will require the Foxboro Spec 200 racks for both units to be installed and operational, which is scheduled for early 1982. The design of the modifications to be made to the AFW pump control circuitry has not yet begun. A complete and thorough review of any design will ensure that no decrease in the reliability or operability of the AFW system results from these changes. A schedule for this work has yet to be determined.

II.E.1.2 AUXILIARY FEEDWATER SYSTEM INITIATION AND FLOW/FLOW INDICATION

The auxiliary feedwater system indication of flow to each steam generator was implemented for Unit 1 during the fall 1980 refueling outage. The Unit 2 steam generator flow indication ^{was} implemented during the ^{spring} 1982 outage. A single channel is shown schematically in Figure II.E.1.2. Auxiliary feedwater pump discharge flow is also monitored and indicated on the control board for operator use.

The auxiliary feedwater system and flow indication has been described in References 1, 2, 3, 9, 12, 23, 24 and submittals by Wisconsin Electric in response to IE Bulletin 79-06B.

The steam generator flow indication instrumentation channels implemented are being environmentally qualified to meet the requirements of IE Bulletin 79-01B. The model of Foxboro transmitter used in the system is currently undergoing a complete 79-01B environmental testing program. This program is scheduled for completion by June 30, 1982. Any changes required of the installed transmitters will follow the program completion.

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Ultimately, power to the flow indication instrumentation channels will originate from highly reliable, battery-backed, Class IE power sources. Implementation of this power source will, however, require the completion of an instrument bus upgrade involving new chargers, batteries, inverters, and electrical distribution equipment. The design of this modification is nearly complete. Construction and installation will be completed consistent with other TMI modifications, with operation June 30, 1982. Until then, the channels will be powered by diverse, highly reliable, non-battery-backed power sources. ASIP

Periodic testability has been designed into the channel circuitry. Channel component purchase, handling, and installation was covered under the Quality Assurance program implemented at Point Beach. Display of auxiliary feedwater flow to each steam generator is continuous and was installed taking into consideration operator use, control room human engineering, and available space on existing control boards.

II.E.4.2.1/4 CONTAINMENT ISOLATION DEPENDABILITY - IMPROVED
DIVERSE ISOLATION

As originally designed, Point Beach met the NRC criteria for diversity of isolation and manual, single valve restoration (Reference 3: NUREG-0578, Item 2.1.4, LL Cat. A). Two out of three areas of NRC concern have been previously completed. These were revisions to administrative and operating procedures and modification to the remote control switch for outboard purge valve CV-3212 (Reference 2).

The remaining item is the addition of isolation valves inside containment to piping for letdown, seal water return, and steam generator blowdown. Note redundant, diversely actuated isolation outside of containment already exists. Auxiliary charging has been removed from this list since it already has inside isolation and the normally closed manual valve outside will be locked closed or administratively controlled if opened. The blowdown valves were added to this list due to the location outside of containment of the existing isolation valves in an area which might possibly be subject to falling debris from a block wall.

The addition of inside containment isolation valves on the letdown, seal water return, and steam generator blowdown lines is in the process of being implemented utilizing the services of an outside consultant for the piping and support design and analysis.

The remote air-operated isolation valves have been ordered from Copes-Vulcan. The delivery schedule for the valves is 48 weeks and, thus, installation could take place during the fall 1982 refueling outage for Unit 1 and the spring 1983 refueling outage for Unit 2 with completion by June 1, 1983.

Yet to be purchased, however, are the manual isolation, vent, and drain valves required to test the auto-isolation valves. Of the nine vendors who were asked to bid on supplying these valves, only two have responded. The shorter delivery time is 26 weeks while the longer is 46 to 60 weeks. We intend to purchase Anchor/Darling valves per the 26-week schedule provided the vendor has acceptable QA and certification/documentation programs. This should not delay the installation of the isolation valves.