September 28, 1981

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of	)	
	)	
WISCONSIN ELECTRIC POWER COMPANY	)	Docket Nos. 50-266
	)	50-301
(Point Beach Nuclear Plant, Units 1 and 2)	)	(OL Amendment)
	)	

LICENSEE'S PROPOSED FORM OF
MEMORANDUM AND ORDER ON LICENSEE'S MOTION FOR
AUTHORIZATION FOR INTERIM OPERATION OF UNIT 1 WITH
STEAM GENERATOR TUBES SLEEVED RATHER THAN PLUGGED

This Memorandum and Order involves the issue of whether interim operation of the Point Beach Nuclear Plant, Unit 1 should be authorized with up to six steam generator tubes repaired rather than plugged, pending the Initial Decision of this Board on Licensee's Technical Specification Change Request No. 69 for amendment of the Point Beach Nuclear Plant, Units 1 and 2 operating licenses.

The current operating licenses require the removal from service, by plugging, of steam generator tubes which leak or have degradation exceeding 40% of the nominal tubewall thickness (termed the "plugging limit"). Licensee's Technical Specification Change Request No. 69 seeks amendment of Facility Operating Licenses DPR-24 and DPR-27 (for Point Beach Units 1 and 2, respectively) to allow operation with steam generator tubes which leak or have indications exceeding the plugging

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limit, but which have been repaired (by a process known as "sleeving") rather than plugged. Licensee proposes to conduct full-scale sleeving programs encompassing a significant number of tubes in the Unit 1 and Unit 2 steam generators.

In preparation for the possible full-scale repair of steam generator tubes at Point Beach, Licensee is conducting a sleeving demonstration program at Unit 1 during its refueling outage in the fall of 1981. The primary objective of the demonstration program is to perform and evaluate the various processes and procedures involved in sleeving on a small number of tubes (up to 12) prior to an outage for a full-scale sleeving operation. The tubes being sleeved in the demonstration program are tubes with eddy current indications of degradation, six (or fewer) of which have degradation exceeding the plugging limit. Some of the tubes being sleeved were previously plugged.

Licensee would prefer, at the end of the sleeving demonstration program -- pending the Board's Initial Decision on Licensee's full-scale sleeving program -- to leave the repaired tubes unplugged and in service for operation. Accordingly, Licensee filed a "Motion For Authorization For Interim Operation of Unit 1 With Steam Generator Tubes Sleeved Rather Than Plugged" and attachments, on September 28, 1981. By that motion, Licensee requested the Board to authorize the Staff to amend the Technical Specifications of Point Beach Unit 1 to allow interim operation of that unit -- pending the Board's

Initial Decision on Licensee's Technical Specification Change Request No. 69 -- with up to six steam generator tubes which exceed the plugging limit, but which have been repaired in the course of the sleeving demonstration program and are not plugged.

Licensee's motion was accompanied by the Affidavit of David K. Porter, Manager of the Nuclear Engineering Section of Licensee's Nuclear Power Department, in which he described the sleeving process, stated that tube sleeving would bridge (and thus repair) the degraded portions of tubes, and demonstrated that sleeving would enhance the integrity of the steam generator tubes and decrease the probability of occurrence of a primary-to-secondary tube leak or sudden tube rupture. Mr. Porter's affidavit included a safety evaluation which showed that operation with the sleeved tubes would not increase either the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in Licensee's safety analysis report, would not create the possibility for an accident or malfunction of a different type than has been previously evaluated, and would not reduce the margin of safety as defined in the basis for any of the Point Beach Technical Specifications.

It is not necessary for the Board to now address the ultimate findings it may later be expected to make on any of the Intervenor's proposed contentions or the acceptability of sleeving as a repair mechanism for large numbers of steam

generator tubes. Licensee's motion constitutes a very small part of the authorization ultimately sought in this proceeding, and nothing in this Memorandum and Order should be construed as in any way influencing or prejudging the Board's ultimate findings at the conclusion of the hearing. The entire sleeving demonstration program involves a maximum of six tubes which otherwise would have to be plugged, a minor fraction of the 3260 tubes in one Unit 1 steam generator. Moreover, operation pursuant to the requested interim Technical Specifications would be for a limited period, pending only the issuance of the Board's Initial Decision (or interim modifying decisions, if necessary) in this proceeding.

Finally, operation of Point Beach Unit 1 -- with or without sleeved tubes -- is restricted by the terms of the Nuclear Regulatory Commission's November 30, 1979 Confirmatory Order, and subsequent modifying orders. If leakage is present in excess of specified limits, that Order mandates additional steam generator inspections and testing, including requirements to shut down and perform primary-to-secondary hydrostatic tests, secondary-to-primary hydrostatic tests, and eddy current examinations to monitor tube degradation. It imposes more stringent limits on primary coolant activity and permissible steam generator tube leakage rates. In addition to the requirement in the Technical Specifications to plug tubes which show greater than 40% degradation, the Confirmatory Order requires close surveillance of primary-to-secondary leakage,

with immediate shutdown for plugging and further examination in the event of closely defined increases in primary-to-secondary leakage, upward trends in such leakage, or identified leaking tubes. The sleeved tubes will be pressure tested and examined by non-destructive testing prior to start-up to verify the integrity of the bonds between the sleeve and the tube wall. Further, the Unit 1 steam generator tubes -- including the six (or fewer) repaired tubes with degradation in excess of the plugging limit -- will be under continuous surveillance during operation, and any unacceptable degradation or leakage of tubes (including the sleeved tubes) would result in shutdown of Unit 1 for corrective action.

Based upon the foregoing and the Board's evaluation of the entire record on Licensee's motion, the Board concludes that:

(1) Interim operation of Point Beach Nuclear Plant, Unit 1 should be permitted in accordance with the amendment to the operating license set forth in the order below, pending further order of this Board;

(2) There is reasonable assurance that the activities authorized by the operating license, as thus amended, and including the terms and conditions set forth in the order below, can be conducted without endangering the health and safety of the public;

(3) There is reasonable assurance that the activities authorized by the operating license, as thus amended, and including the terms and conditions set forth in the order below, will be conducted in compliance with the Commission's regulations; and

(4) The issuance of this operating license amendment as set forth in the order below will not be inimical to the common defense and security or to the health and safety of the public.

ORDER

Wherefore, it is ORDERED, in accordance with the Atomic Energy Act of 1954, as amended, and the regulations of the Nuclear Regulatory Commission, and based on the considerations stated herein, that the Director of Nuclear Reactor Regulation is authorized to make appropriate findings consistent with this Memorandum and Order in accordance with the Commission's regulations, and to issue the appropriate license amendment to Facility Operating License No. DPR-24, authorizing interim operation of Point Beach Nuclear Plant, Unit 1, with up to six unplugged steam generator tubes which have been found to leak or exceed the plugging limit if such tubes have been repaired by sleeving.

IT IS SO ORDERED.