UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

April 18, 1986

MEMORANDUM FOR: Albert W. DeAgazio, Project Manager
Project Directorate #6
Division of PWR Licensing-B

FROM: Drew Persinko, Maintenance and Surveillance Engineer
Maintenance and Training Branch
Division of Human Factors Technology

SUBJECT: SER INPUT ON DAVIS-BESSE MAINTENANCE PROGRAM

Enclosed is the SER input resulting from the follow-up maintenance survey conducted at Davis-Besse on March 24-27, 1986. In addition to myself, members of the NRC team conducting the survey were as follows:

W. Guldemond, IE, RIII
N. Choules, IE, RIII
G. Dick, NRR
R. Cooper, IE
G. Barber, IE

As agreed upon, this SER is largely an overview provided to meet your schedular needs. A more comprehensive SER will be forwarded to you in May.

Drew Persinko

Drew Persinko, Maintenance and
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Maintenance and Training Branch
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Enclosure:
As stated

cc: W. Russell
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SER INPUT
FOLLOW-UP MAINTENANCE SURVEY
DAVIS-BESSE

During the follow-up survey, the staff re-examined the areas of corporate commitment, spare parts/material readiness, supervision, preventive maintenance, maintenance backlog, maintenance procedures, communications, defined responsibilities and training. Also reviewed was the functioning of the planning and scheduling organization and the implementation of administrative procedures.

Considerable progress was made by the licensee in all areas except maintenance backlog since the last site visit. While some problem areas were noted, they were not considered to be major programmatic weaknesses and they did not appear to be affecting the functioning of the maintenance organization. Overall, the maintenance organization is considerably more established since the last visit and it appears to be functioning as designed. Particular strengths noted during the visit were in the areas of maintenance training and spare parts/material readiness.

The warehouse inventory has been completed and a computerized inventory tracking system as well as mechanical systems showing the status of parts is in place. The expediting/procurement process is obtaining the necessary parts to accommodate the field work. The staff noted that there does not appear to be a wealth of spare parts and that ultimately, the licensee must identify future inventory needs. Doing so would result in an orderly procurement and cause less reliance on expediting. Overall, good management techniques have been applied to the spare parts/material readiness area so that parts are now available to support field personnel.

The NRC team viewed the maintenance training facilities and spoke to maintenance trainers and to craft personnel who are receiving the training. The team did not, however, review the training program in the detail to which the staff currently reviews operations training. Construction of the maintenance training laboratories was in progress at the time of the last visit, whereas

currently, the labs have been completed and appear to be well equipped. The training shift concept and the training council concept have been implemented and training of maintenance personnel is ongoing. A point to note is that management implemented the training shift concept during this outage rather than after restart which the team believes exemplifies management's commitment to the maintenance training program. The NRC team conveyed the importance of considering comments provided by the training councils because even the perception that the comments are not being considered would diminish the support of the crafts to the program.

The NRC team investigated the area of outstanding Maintenance Work Orders (MWO). Although a considerable number of MWOs have been completed, the number of outstanding MWOs still remains high (approximately 3000) because new ones have been generated. However, not all MWOs are related to plant operability or plant safety (e.g., MWO to replace lock on circuit breaker cabinet). Consequently, rather than review absolute numbers of MWOs, the NRC team focused on the licensee's ability to manage and control the MWOs. It is the team's opinion that the licensee is able to effectively manage the open MWOs. All MWOs have been prioritized and a determination made as to whether completion of the MWO is necessary for restart. Region III, however, will continue to monitor the area of outstanding MWOs to assure continued control and progress. The team also reviewed approximately 1000 MWOs not scheduled for completion prior to restart to ascertain the licensee's compliance with the stated bases for making this determination. This was done by reviewing the titles of the MWOs and questioning those that potentially did not meet the MWO restart criteria. The vast majority of MWOs reviewed did conform with the licensee's restart criteria. The team did question some items; however, the licensee was able to justify their dispositions in almost all cases. For those cases where the qualitative argument presented by the licensee did not satisfy the team, the licensee agreed to reconsider those

MWOs in detail for restart. This review of MWOs leads the team to conclude that the licensee is consistently complying with the stated bases for determining MWOs needed for restart. The team suggested that outstanding MWOs be considered on a system basis rather than solely on an item-by-item basis. Part of the reason for doing so was because there appeared to be several balance-of-plant systems with many MWOs not scheduled for completion prior to restart, which, if not operational, could affect plant operation. The licensee stated that a limited review of MWOs on a systems basis had been done but that a more thorough review of this nature would be conducted.

In conclusion, considerable progress has been made by the licensee in the area of plant maintenance. The new maintenance organization is functioning as designed with no major identifiable weaknesses. The few problem areas noted by the team were not considered major programmatic weaknesses and they did not appear to negatively affect the functioning of the maintenance organization.