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 ALEXICH, M.P.                    Indiana Michigan Power Co. (formerly Indiana & Michigan Ele  
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SUBJECT: Application for amends to Licenses DPR-58 & DPR-74, modifying  
 Tech Spec Table 3.3-3. Fee paid.

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AEP:NRC:1030A

Donald C. Cook Nuclear Plant Units 1 and 2  
Docket Nos. 50-315 and 50-316  
License Nos. DPR-58 and DPR-74  
TECHNICAL SPECIFICATION CHANGE:  
MOTOR-DRIVEN AUXILIARY FEEDWATER ACTUATION SIGNALS

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

Attn: T. E. Murley

January 12, 1989

Dear Dr. Murley:

This letter and its attachments constitute an application for amendment to the Technical Specifications (T/Ss) for Donald C. Cook Nuclear Plant Unit Nos. 1 and 2. Specifically, we are proposing to modify T/S Table 3.3-3 (Engineered Safety Features Actuation System Instrumentation) so that it more accurately reflects the actuation signals for the auxiliary feedwater system.

We believe that the proposed changes will not result in (1) a significant change in the types of effluents or a significant increase in the amounts of any effluent that may be released offsite, or (2) a significant increase in individual or cumulative occupational radiation exposure.

These proposed changes have been reviewed by the Plant Nuclear Safety Review Committee and will be reviewed by the Nuclear Safety and Design Review Committee at their next regularly scheduled meeting.

In compliance with the requirements of 10 CFR<sup>o</sup> 50.91(b)(1), copies of this letter and its attachments have been transmitted to Mr. R. C. Callen of the Michigan Public Service Commission and Mr. George Bruchmann of the Michigan Department of Public Health.

Pursuant to 10 CFR 170.12(c), we have enclosed an application fee of \$150.00 for the proposed amendments.

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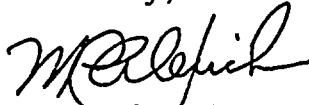
T. E. Murley

-2-

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This document has been prepared following Corporate procedures which incorporate a reasonable set of controls to ensure its accuracy and completeness prior to signature by the undersigned.

Sincerely,



M. P. Alexich  
Vice President

eh

Attachments

cc: D. H. Williams, Jr.  
W. G. Smith, Jr. - Bridgman  
R. C. Callen  
G. Bruchmann  
G. Charnoff  
NRC Resident Inspector - Bridgman  
A. B. Davis - Region III

Attachment 1 to AEP:NRC:1030A  
Reasons and 10 CFR 50.92 Analyses for Changes to the  
Donald C. Cook Nuclear Plant  
Units 1 and 2 Technical Specifications

This letter proposes modifications to Technical Specification (T/S) Table 3.3-3, Functional Unit 6.b. This functional unit involves the motor driven auxiliary feedwater pump start on a 4kv bus loss of voltage signal. The modifications we are proposing are intended to clarify the T/S such that it more accurately reflects the number of channels present and the number of channels necessary to provide the motor driven auxiliary feedwater function.

#### Description of Systems

A schematic drawing of the motor driven auxiliary feedwater pump system at the Cook Nuclear Plant is presented in Figure 1 of this attachment. As indicated in the figure, the Train A (East) pump delivers flow to Steam Generator No. 2 via motor operated valve FMO-222, and to steam generator No. 3 via FMO-232. Likewise, the Train B (West) pump delivers flow to steam generator No. 1 via FMO-212, and to steam generator No. 4 via FMO-242.

A schematic drawing of the electrical bus arrangement with regard to the motor driven auxiliary feedwater pumps and their associated motor operated valves is provided as Figure 2. As indicated in the figure, the Train B pump is powered from the 4kv bus T11A. The valves associated with the Train B pump are powered from the 600-volt bus 11A, which is fed from bus T11A. The Train A pump and valves are similarly fed from 4kv bus T11D and 600-volt bus 11D, respectively.

There are 3 relays (channels) which indicate loss of voltage on each of the 4 safety busses. Actuation of 2 of the relays on bus T11A will start an emergency diesel generator and the Train B motor driven auxiliary feedwater pump. Similarly, actuation of 2 of the relays on bus T11D will start an emergency diesel generator and the Train A pump.

The FMO valves associated with the motor driven auxiliary feedwater pumps are normally open. Should they be closed, for testing purposes, loss of voltage will cause both trains of valves to be opened (after starting the diesel generator) provided voltage is lost to both safety busses associated with a train. For example, actuation of 2 of 3 relays on bus T11A and 2 of 3 relays on bus T11B will open valves FMO-212, -222, -232, and -242. Should the pumps start without the valves opening, the pumps are protected from dead-heading by an emergency leak-off (recirculation) line to the condensate storage tank.

#### Reason for Change

T/S Table 3.3-3 Functional Unit 6.b as currently written states that there are a total of 2 channels per bus, with both channels

per bus required to trip. The functional unit as written is incorrect since, as described above, there are actually 3 channels per bus. Furthermore, it is misleading in that it does not indicate that loss of voltage on two busses is necessary to open the FMO valves. For these reasons, we are proposing to modify the functional unit as indicated below.

<u>Functional Unit</u>	<u>Total No. of Channels</u>	<u>Channels to Trip</u>
b. 4kv Bus loss of voltage	3/bus	
Pump start		2/bus (T11A-Train B; T11D-Train A)
Valve Actuation (Both trains)		2/bus on (T11A & T11B or 2 busses T11C & T11D)

These changes are considered to be administrative in nature. They are intended to clarify the T/Ss with regard to actuation of motor driven auxiliary feedwater. No operability or surveillance requirements will be reduced as a result of this change.

#### 10 CFR 50.92 Criteria

Per 10 CFR 50.92, a proposed amendment will not involve a significant hazards consideration if the proposed amendment does not:

- (1) involve a significant increase in the probability or consequences of an accident previously evaluated,
- (2) create the possibility of a new or different kind of accident from any accident previously analyzed or evaluated, or
- (3) involve a significant reduction in a margin of safety.

#### Criterion 1

These changes are intended only to clarify and correct the existing T/S so that it more accurately reflects the actuation signal for motor driven auxiliary feedwater flow in the event of a loss of voltage on the safety busses. No operability or

surveillance requirements have been reduced. Therefore, we believe the change does not involve a significant increase in the probability or consequences of an accident previously analyzed, nor does it involve a significant reduction in a margin of safety.

Criterion 2

The change does not involve physical modifications to the plant or changes in plant operation. Therefore, the change should not create the possibility of a new or different kind of accident from any previously analyzed or evaluated.

Criterion 3

See Criterion 1, above.

Lastly, we note that the commission has provided guidance concerning the determination of significant hazards by providing certain examples (48 FR 14870) of amendments considered not likely to involve significant hazards consideration. The first of these examples refers to changes which are purely administrative in nature: for example, changes to achieve consistency throughout the T/Ss, correction of errors, or changes in nomenclature. The proposed change only clarifies the present T/S and corrects errors in the present text. We are not proposing to reduce any present requirements. For these reasons, we believe that the example cited is applicable and that the proposed change should not involve significant hazards consideration.

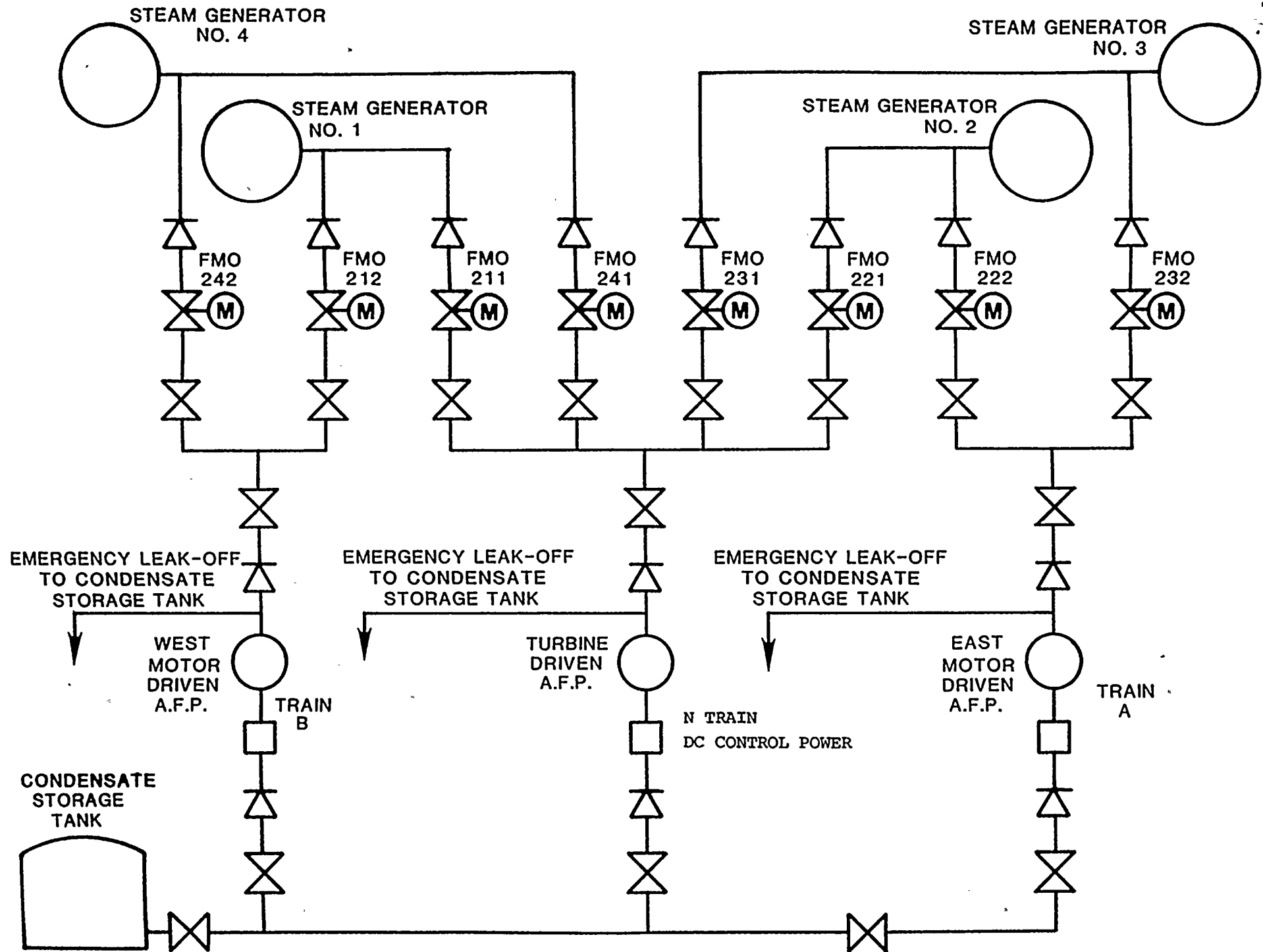
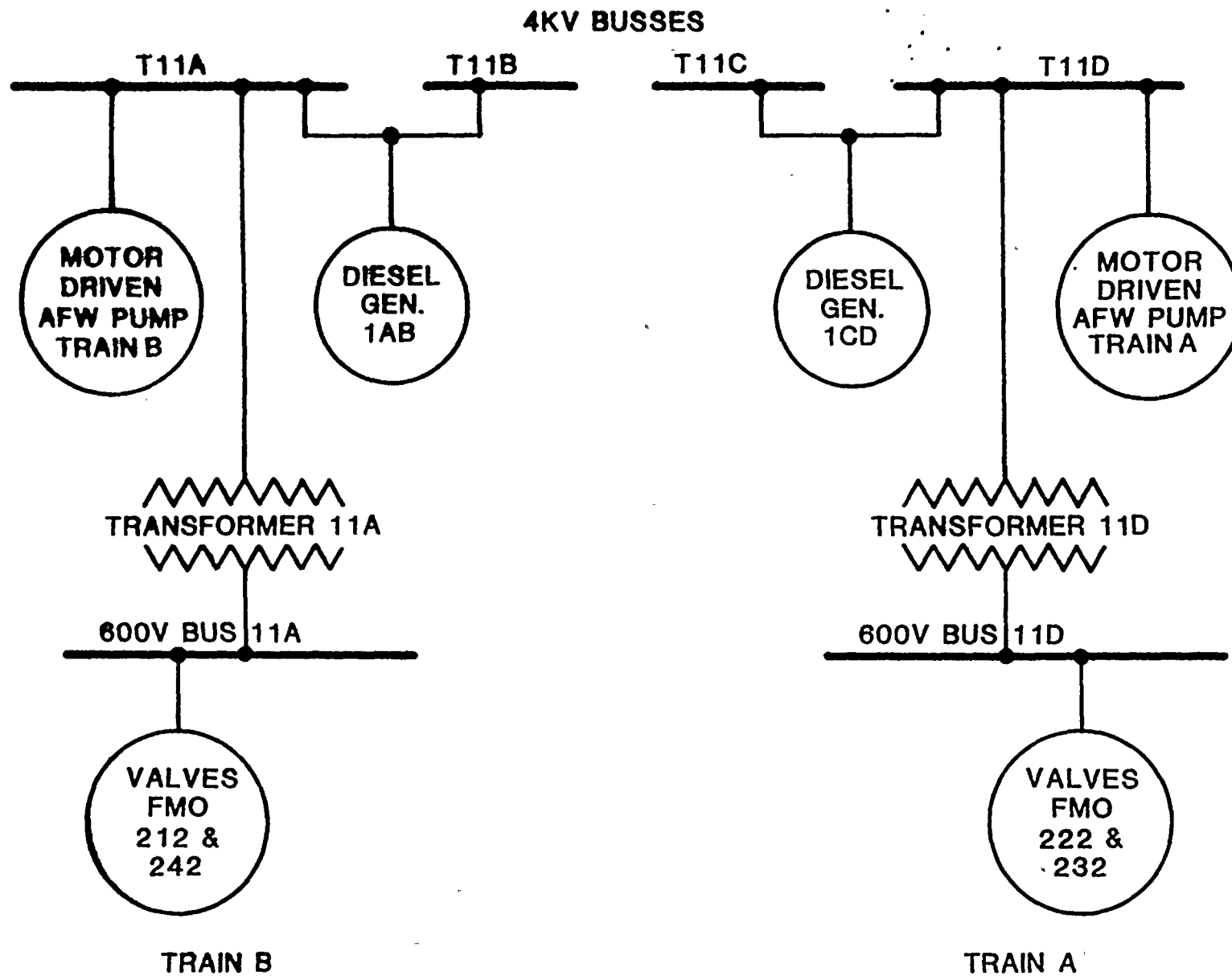


Figure 1 Donald C. Cook Nuclear Plant auxiliary feedwater system





**Figure 2 Power sources for motor driven auxiliary feedwater pumps and associated valves**

