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QA

December 11, 1992

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

Subject: Waterford 3 SES
Docket No. 50-382
License No. NPF-38
Request for Information Regarding
Control Element Assembly (CEA) #38

Gentlemen:

This letter is being sent pursuant to your request for information concerning Control Element Assembly (CEA) #38 as discussed in a telephone conversation between members of your staff and Waterford 3 on December 11, 1992.

On November 9, 1992, I&C Maintenance personnel noticed the Card Status Monitor light illuminated for CEA #38, subsequent investigation found the Automatic CEDM Timer Module card had it's upper gripper and motion failure LED's illuminated, the presence of approximately -170 volts across the terminals which supply voltage to the Load Transfer CEDM Coil, and an open in CEA #38 Load Transfer CEDM Coil Circuit. A visicorder trace showed that the watchdog timer could not be seen on the Load Transfer Coil trace. On November 12, 1992, in response to a timer failure annunciation alarm, the circuit to CEA #38 Load Transfer CEDM coil was observed to be closed, the -170 volts was not present across the terminals which supplied voltage to the Load Transfer Coil, and the watchdog timer was present on the visicorder trace. This lead us to believe that the open circuit observed on November 9, 1992, was now closed confirming our belief that a faulty connection existed in the load transfer circuit.

Again, on November 18, 1992, the circuit to CEA #38 Load Transfer CEDM coil was found to be open and -170 volts present on the terminals supplying CEA #38 Load Transfer CEDM coil.

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Waterford 3 contacted Combustion Engineering (CE) on November 17, 1992, to obtain recommendations in dealing with the subject condition. Specifically, Waterford 3 wanted to confirm its position that the local transfer coil circuit was open and that CEA #38 remained trippable. In addition, we requested additional information regarding exercising CEA #38 for Technical Specification (TS) testing, and the risk factors in exercising CEA #38. CE responded to Waterford 3's request on December 11, 1992 and provided the following information:

1. The purpose of the load transfer function is to minimize latch and drive shaft wear. Without the load transfer function, additional wear on the extension shaft will occur when moving CEA #38. Stepping the CEA with the associated load transfer malfunction will also increase the likelihood of dropping the CEA.

2. Proper operation of the load transfer is not required to successfully move the CEA. In other words, the CEDM will continue to move.

3. CE has reviewed the CEDM #38 coil current traces and has determined that the latch functions are normal with no evidence of excessive friction, mechanical interference, or sluggish operation. They support our position that this CEDM remains fully trippable.

Based on the above, Waterford 3 believes that CEA #38 is operable. However, Waterford 3 will declare CEA #38 inoperable and enter TS ACTION STATEMENT 3.1.3.1(f). ACTION (f) allows continued operation in Modes 1 and 2 if the CEA is inoperable due to causes other than addressed by ACTION (a) (i.e., not mechanically bound). This specification then requires the plant to be in hot standby in 6 hours should an additional CEA become inoperable. This poses a problem for Waterford 3 during the upcoming surveillance testing. Historically, repairs have been necessary to correct CEDM electrical problems during TS surveillance testing. Should such repairs be necessary while in ACTION (f), the diagnosis/repair time would exceed the time necessary to be in hot standby within 6 hours thus forcing a plant shutdown. Therefore, Waterford 3 is preparing a TS Change Request which will modify TS 3.1.3.1 and its associated basis to allow continued plant operation for 72 hours with more than one full length or part length CEA inoperable due to an electronic or electrical problem in the Control Element Drive Mechanism Control System provided that all affected CEAs remain trippable. This change recognizes the

current industry position that CEA(s) which are immovable but remain trippable and aligned (i.e., CEA #38) should be considered operable. This philosophy has been approved by the Staff.

To summarize, it is management's decision that operating CEA #38 during the upcoming TS surveillance test is imprudent given the increased risk of a rod drop and subsequent plant transient. Conservatively declaring CEA #38 inoperable places Waterford 3 in a potential shutdown condition should problems occur during surveillance testing. However, since the extension of the allowable outage time only applies to CEAs which remain trippable, assurance of the CEA's primary safety function of shutting down the reactor upon initiation of a reactor trip signal is maintained and therefore poses no significant hazards consideration.

While there is reasonable assurance of the accuracy of this submittal, the validation process is ongoing. Should you have any questions or comments regarding this matter, please contact P.L. Caropino at (504) 739-6692.

Very truly yours,

R.F. Burski

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