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September 2, 1988

Mr. T. E. Murley
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC. 20555

Attn: Document Control Desk

Subject: Braidwood Units 1 and 2
Limitorque Operator Lubrication
NRC Docket No. 50-456

Reference: (a) NUREG-1002, Safety Evaluation Report, Supplement #6, dated May, 1988
(b) August 26, 1988 S.C. Hunsader letter to T.E. Murley

Dear Mr. Murley:

Section 3.9.1 of Reference (a) provided the NRC staff's review of Commonwealth Edison's (Edison) submittals that addressed mixed grease within Limitorque valve operators. On page 3-1, the NRC acknowledged that Edison had identified 68 operators in both Units 1 and 2, that had grease mixtures greater than 5% SUN EP 50 mixed with Exxon Nebula EP0/EP1. (At this time, these operators have had the grease removed and replaced with Exxon Nebula EP1.) On page 3-3, the NRC staff provided the following comment:

"There is limited data on the affects of radiation exposure on mixed greases. Niagara Mohawk environmental testing of a mixture of calcium and lithium lead based greases resulted in no unacceptable degradation due to radiation. Although the test data is not directly applicable to the Braidwood grease mixture (similar grease bases, but unidentified trade names and composition), it does provide an indication of the radiation resistance of a mixture of similar chemical constituents."

In response to this comment and to verify that the as-found grease mixtures at Braidwood Station would have performed their intended function, mixtures of SUN EP50 and Exxon Nebula EP0/EP1 greater than 5% were radiation tested. The results of that testing were provided to the NRC staff in reference (b). The samples of Exxon Nebula EP0/EP1 mixed with Sun EP50 had maintained a

A001
1/0

consistency whereby the lubricating capability had not been reduced. Under a radiation exposure condition, it was verified that the grease will perform its intended lubricating function.

As indicated in reference (b), valve 1RC 8001 A is a main loop isolation valve that is power locked out during all operational modes. Power is restored only during shutdown to expedite NSSS maintenance. This valve serves no safety function beyond maintaining the Reactor Coolant System boundary, thus operability and E.Q. qualification are not issues. The grease in this valve has not yet been changed out. Appropriate documents are being revised to indicate this change in EQ status.

In light of discussions held during the Enforcement Conference held at RIII on August 17, 1988, this information has been provided to the NRC staff to be reviewed for the purpose of assessing safety significance. The results of such a review will be relevant to any final enforcement actions taken.

Please address any questions concerning this matter to this office.

Very truly yours,

S. C. Hunsader

S. C. Hunsader
Nuclear Licensing Administrator

/klj
cc: S. Sands-NRR
W. Forney-RIII
Braidwood Resident Inspector

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