Union Electric
Callaway Plant

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U. S. Nuclear Regulatory Commission
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ULNRC-4493

Gentlemen:

REPLY TO REQUEST FOR ADDITONAL INFORMATION
INSPECTION REPORT NO. 50-483/00-17
CALLAWAY PLANT
UNION ELECTRIC CO.

REF:
1. ULNRC – 4378 dated February 7, 2001
2. ULNRC – 4368 dated February 15, 2001
3. EA-00-208 dated January 9, 2001
4. EA-00-208 dated May 4, 2001

This letter responds to Mr. Ellis W. Merschoff's letter dated May 4, 2001, which transmits the results of reviews requested by References 1 and 2 for events discussed in Inspection Report 50-483/00-17, including a Notice of Violation (NOV) and a significance determination. Union Electric herewith provides a clarification of its position with regard to the NOV, and replies to the request for additional information. We also continue the dialogue on the significance determination process (SDP).

1. Clarification of Union Electric' Position on the NOV

After carefully reviewing the NRC response to Reference 2, Union Electric will not contest further whether a violation occurred as stated in the NOV. With respect to the five specific examples cited in the NOV, Union Electric, with the benefit of hindsight, agrees there were areas requiring improvement in its performance of ALARA controls during Refueling Outage 10 (RF10). Specifically, Union Electric agrees that during RF10, there were limited areas, when viewed with the benefit of hindsight, where the ALARA planning and controls were not commensurate with the complexity of work

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undertaken. Also, as demonstrated by the performance during the recent Refueling Outage 11 at Callaway, Union Electric agrees that sufficient mock-up training and adequate communications are important aspects of maintaining occupational doses ALARA.

As stated previously in Reference 2, Union Electric has implemented and maintains an ALARA program as required by NRC regulations and consistent with NRC and industry guidance. It has self-identified the areas requiring improvement and has initiated the necessary corrective action as described in Reference 2. The recent NRC Supplemental Inspection of Callaway's ALARA program performed April 23-May 10, 2001 verified the implementation of the required corrective action. Now as before, Union Electric remains committed to using, to the extent practical, procedures and engineering controls based on sound radiation protection principles to achieve doses ALARA.

2. Reply to the request for additional information

The NRC letter of May 4, 2001 forwards the results of the SDP appeal panel review (Encl. 4, Parts A and B) that includes seven recommendations. One of those recommendations is a request for further clarification of Union Electric statements on whether dose estimates on Radiation Work Permits (RWPs) are sums of the estimates for the Work Authorizing Documents (WADs) covered by each RWP. Based on the SDP appeal panel's recommendation, the NRC letter inquires whether this statement implies there were dose estimates at the WAD level for all jobs, including scaffolding work.

Union Electric did not intend to imply that there were dose estimates at the WAD level for all jobs. Union Electric made the referenced statement in an argument that used overall cumulative occupational dose for the entire refueling outage as an alternate measure of licensee ALARA performance in lieu of evaluating ALARA planning and control at the WAD or RWP level. In that context, during RF10 ALARA planning, Union Electric calculated RWP dose estimates by summing the work effort estimates on each WAD covered by the RWP, including appropriate adjustments. No independent estimate of work effort was made at the RWP level, so that if the intermediate dose estimates at the WAD level had been uniformly recorded, the aggregate sum for RF10 would be the same. As such, aggregate outage dose can be evaluated without first agreeing whether the appropriate measure of a job at Callaway is at the WAD or RWP level.

In fact, while man-hour estimates were made at the WAD level, this information was not translated into dose estimates for individual WADs in all cases. Therefore, the NRC's understanding of the Union Electric process for making dose estimates for Refuel 10 based on inspection interviews and regulatory conference discussions, is accurate and no new substantive information is available.

3. Continuation of a dialogue on the significance determination process.

As stated in Union Electric's letter of February 7, 2001, the Reactor Oversight Process (ROP) has exhibited marked improvement over the former inspection and enforcement process with regard to objectivity, scrutability, regulatory focus on risk significance, and the reduction of unnecessary regulatory burden. Throughout the implementation and transitional period into the ROP, the NRC has endeavored to maintain strict adherence to the program as designed. These efforts preserve the integrity of the process and yield more meaningful observations regarding the usability, effectiveness and consistency of the ROP in light of the upcoming comment period for the first year of implementation. In addition, strict adherence to the ROP guidelines has generally provided for a more predictable and consistent characterization of inspection findings within an inspected area and, to a limited degree, from area to area across the spectrum of the inspection program. The SDP appeal panel report is an example of the strength of this process as the panel report fairly and accurately captures Union Electric's concerns with the ALARA SDP as applied to RF10 at Callaway and makes appropriate recommendations.

Union Electric supports the SDP for ALARA results as a well-intentioned attempt to establish a metric for inspection of the ALARA programs at nuclear plants. The new Regulatory Oversight Process has made many needed improvements to the inspection and enforcement at nuclear plants and Union Electric strongly supports the effort. Union Electric's experience with the SDP for ALARA, reinforces Union Electric's belief in the need for continuing efforts to ensure the SDP for ALARA is consistent with the risk-informed basis of the Regulatory Oversight Process and the intent of ALARA. This risk-informed basis for the ALARA SDP should be based on consensus opinion within the scientific community. The ALARA SDP must also assure proper balancing of the safety significance of ALARA findings with plant safety, personnel safety, cost, and outage duration. One approach to further this effort would be for the NRC to provide additional direction to the ALARA SDP focus group to more completely resolve the SDP appeal panel recommendations, including the concerns expressed above.

Union Electric is hopeful the continuing dialogue on the ALARA SDP with the stakeholders will address these needed clarifications. Union Electric does not intend to continue further appeals but does believe these issues need to be addressed to provide an risk-informed ALARA SDP that is consistent with the basis of the Reactor Oversight Program.

If you have any questions regarding this response, or if additional information is required, please let me know.

Very truly yours,

Garry L. Randolph

GLR/MAR/slk

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