REED COLLEGE *Portland, Oregon* 97202

REACTOR FACILITY

50-288

23 March 1988

Regional Administrator
U. S. Nuclear Regulatory Commission, Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596-5368

RE: Docket 50-288, License R-112

Dear Administrator:

This letter is to inform you of a possible violation of our Technical Specifications. Condition D.2. of the Technical Specifications requires that "the pool water shall be sampled for conductivity at least weekly." Contrary to this requirement, the conductivity was not recorded during the period from March 9—22, 1988.

The possible violation resulted from a combination of a) maintenance on the primary water system; b) college spring break; and c) failure of the conductivity monitor itself. The sequence of events was as follows:

3/9/88 Conductivity measured at 1.3 µmhos/cm. Recorded on daily startup checklist. Primary water system turned off to allow for the decay of activation products on filters in preparation for filter change.

3/10 Weekly checklist completed. Operator reported March 9 conductivity (rather than turning on primary water system as required for conductivity measurement) as instructed by the Associate Director.

3/11 Reactor operated briefly for operator training. This was the only reactor operation scheduled during this period due to college spring break.

3/17 Primary water system filters changed and analyzed for the pressence of fission products. Water system returned to service.

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3/19 Weekly checklist completed. This checklist was a couple of days later than normal due to campus spring break, however, it was completed within the ten day period allowed by the administrative procedures. During completion of the checklist, the operator discovered and reported the conductivity monitor to be non-functional.

3/21 Conductivity monitor repaired by replacement of faulty vacuum tube.

3/22 Conductivity measured at 1.3 μmho/cm.

In our judgment, there was no impact of the possible violation on the safety of the reactor. During the period of 8/86—present, the conductivity of the pool water has never been outside of the range of 1.1—1.4 μmho/cm. At no time was the conductivity limit of 2.0 μmho/cm averaged over a month approached, nor could it have been, short of a major water contamination or fuel element rupture.

An attempt was actually made on the last day of the surveillance interval to measure the conductivity as required. However, that attempt failed only because the instrument was found to be non-functional. The instrumentation was repaired as quickly as possible and the reactor was not operated in the interim.

This situation will be discussed with reactor operators at the next meeting, as an action we are taking to prevent a recurrence of these events. However, any additional action is believed to be unwarranted since the possible violation depended on three independent events occurring in the order in which they did. The weekly checklist was originally created to insure that this specific condition of the Technical Specifications was met and it has worked very well. Had an attempt been made to measure the conductivity immediately following the filter change, and the meter been found to be non-functional at that time, it is possible, but still not certain that the instrument could have been repaired within the surveillance interval.

Sincerely,

Lawrence Ruby
Professor
Reactor Administrator