



Commonwealth Edison
One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

REGULATORY DOCKET FILE COPY

November 3, 1978

Mr. T. A. Ippolito, Chief
Operating Reactors - Branch 3
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Dresden Station Units 2 & 3
Quad-Cities Station Units 1 & 2
Additional Information Regarding
Reactor Vessel Metal Surveillance
Specimen Fluences
NRC Docket Nos. 50-237/249/254/265

Reference (a): R. L. Bolger letter to E. G. Case
dated May 16, 1977

Dear Mr. Ippolito:

Reference (a) transmitted a Commonwealth Edison request to make amendments to Dresden Units 2 & 3 and Quad-Cities Units 1 & 2 regarding the reactor vessel metal surveillance programs. During subsequent telephone conversations with the NRC Staff, we have been requested to transmit the estimated fluence values for the surveillance capsules at the time of withdrawal. The enclosed Table 1 supplies the requested information. The basis for these projections are dosemetry results of previously tested surveillance capsules and eighty percent capacity factor.

Due to the low end-of-life fluence expected for these vessels, Appendix H requires only three capsules for each of the respective metal surveillance programs. Of these three, one capsule is to be withdrawn after one-fourth of the equivalent service life, one at three-fourths of the equivalent service life, and the remaining capsule is designed as a standby. Since the neutron flux at the wall capsules is nearly the same as the maximum which will be seen at the vessel wall, the capsule withdrawal schedules (contained in each of the respective Technical Specifications) show capsule removals to be at ten and thirty calendar years of service.

781140105-01 A021
11/10

Mr. T. A. Ippolito:

- 2 -

November 3, 1978

The capsules listed in Table 1 are all located adjacent to the reactor vessel wall. The near core top guides or accelerated capsules, also listed in the Technical Specifications, are not included in Table 1 as the anticipated fluence at the time of withdrawal is at least 100 times greater than the expected end-of-life fluence of the vessel. However, these capsules will provide much needed data with regards to the irradiation sensitivity of these pressure vessel steels. The fluence projections for the 215 degree azimuthally located capsule in each vessel was obtained by multiplying the normalized fluence (that being taken as the fluence at 1 effective full power year, EFPY) by 8 EFPY or one-fourth of the service life at 80 percent capacity factor. The 215 degree and 35 degree capsules are equivalent azimuthal positions. The projections for the 95 degree and 245 degree capsules were obtained by multiplying the normalized 35 degree capsule fluence by 24 EFPY or three-fourths of the service life and multiplying that total by 0.661 which accounts for the lower fluence of these locations compared to the 35 degree location. Variations between the fluences is not considered to be of any consequence due to the uncertainties in the cross-sectioned values used.

Please address any questions concerning this matter to this office.

Very truly yours,



M. S. Turbak
Nuclear Licensing Administrator
Boiling Water Reactors

enclosure