



**Commonwealth Edison**  
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August 26, 1977

Mr. Donald K. Davis, Acting Chief  
Operating Reactors - Branch 2  
Division of Operating Reactors  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Regulatory

File Cy.



**Subject:** Dresden Station Units 2 and 3  
Quad-Cities Station Units 1 and 2  
Request for Information Concerning  
Reactor Vessel Material  
NRC Docket Nos. 50-237/249 and 50-254/265

**References (a):** D. K. Davis letter to R. L. Bolger,  
dated May 20, 1977.

**(b):** D. E. O'Brien letter to D. K. Davis,  
dated August 9, 1977.

Dear Mr. Davis:

This letter and the enclosure contain Commonwealth Edison's response to Reference (a) requesting information concerning the Dresden and Quad-Cities reactor vessel material surveillance programs. Dresden Units 2 and 3 and Quad-Cities Units 1 and 2 are addressed in this response. Dresden Unit 1 information will be transmitted by October 26, 1977, as indicated in Reference (b).

The attached generic report prepared by General Electric presents a position that radiation damage differences between material represented in the metal surveillance program and other beltline materials are very small. The relatively low end of life fluence and the expected compositional variations contribute to this position. Based on this, we consider the requested detailed information in Reference (a) to be unnecessary for the NRC Staff to judge the adequacy of the Dresden Units 2 and 3 and Quad-Cities Units 1 and 2 material surveillance programs.

The following information specific to Dresden Units 2 and 3 and Quad-Cities Units 1 and 2 reactor vessels is provided to further aid the Staff in its review.

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- 2 -

August 26, 1977

1. The end of life fluence at the inner wall is  $2.4 \times 10^{17}$  nvt ( $>1$  MeV) based on 40 years at 80% capacity factor.
2. The beltline regions of the reactor pressure vessels contain a circumferential submerged arc weld and longitudinal electroslag welds.
3. The metal surveillance program for each vessel is described in GE Report NEDO 10115, Class 1, dated July, 1969, entitled "Mechanical Property Surveillance of General Electric BWR Vessels".
4. Chemical analyses of materials in the Dresden Unit 3 and Quad-Cities Units 1 and 2 surveillance programs determined the Cu, P, and S contents to be as given in the attached table. Chemical analyses have not been made on Dresden Unit 2 materials.
5. Unirradiated charpy v-notch and tensile properties of materials in the Dresden Units 2 and 3 and Quad-Cities Units 1 and 2 surveillance programs are given in the attached table.

Please direct any additional questions concerning this matter to this office.

One (1) signed original and 59 copies of this letter are provided for your use.

Very truly yours,



M. S. Turbak  
Nuclear Licensing Administrator  
Boiling Water Reactors

Attachment