

April 13, 2001

Dr. Robert U. Mulder, Director  
Nuclear Reactor Facility  
University of Virginia  
P.O. Box 400322  
Charlottesville, VA 22904-4322

SUBJECT: UNIVERSITY OF VIRGINIA - REQUEST FOR ADDITIONAL INFORMATION  
RE: DECOMMISSIONING AMENDMENT REQUEST (TAC NO. MA8186)

Dear Dr. Mulder:

We are continuing our review of your decommissioning amendment request for Facility Operating License No. R-66 for the University of Virginia Reactor which you submitted on February 9, 2000, as supplemented on April 26, June 6, and December 19, 2000. During our review of your amendment request, questions have arisen for which we require additional information and clarification. Please provide responses to the enclosed request for additional information within 30 days of the date of this letter. In accordance with 10 CFR 50.30(b), your response must be executed in a signed original under oath or affirmation. Following receipt of the additional information, we will continue our evaluation of your amendment request.

If you have any questions regarding this review, please contact me at 301-415-1127.

Sincerely,

***/RA by Marvin M. Mendonca Acting For/***

Alexander Adams, Jr., Senior Project Manager  
Events Assessment, Generic Communications and  
Non-Power Reactors Branch  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket No. 50-62

Enclosure: As stated

cc w/enclosure:  
Please see next page

University of Virginia

Docket Nos. 50-62/396

cc:

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TEMPLATE #: NRR-056

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REQUEST FOR ADDITIONAL INFORMATION  
UNIVERSITY OF VIRGINIA RESEARCH REACTOR  
DOCKET NO. 50-62

1. Iridium-192 is listed as a building surface contaminate Derived Concentration Guideline Limit (DCGL) in Table 2-6 of reference 1 but not in Table 7 of reference 2 or in the list of proposed soil DCGLs in Table 10 of reference 2. Please discuss.
2. There are apparent inconsistencies between the response to number 28 of reference 1 and sections 2.3.1.1.3.1-4 of the Decommissioning Plan (DP) (Ref. 3). How will equipment, materials, instrumentation, and tools that are used during the decommissioning be processed? Please discuss.
3. Please provide justification for not having a Technical Specification (TS) requiring the use of filtered ventilation in the reactor room to maintain the negative pressure while work is being done in the reactor room and pool. This condition is referred to in the note to the response to RAI number 13 of reference 1 and in section 2.3.1.2 of the DP (Page 2-13, Ref. 3).
4. The position "UVA Industrial Hygiene (IH)" is referred to in the Respiratory Protection part of section of 3.1.2 of the DP (Page 3-8, Ref. 3). Please provide the position with supervisory control over the IH position. Please list the responsibilities of the IH position.
5. The document "Disposal Site Waste Acceptance Criteria" is referred to in section 3.2.2 of the DP (Page 3-17, Ref. 3). Please provide the citation for this document.
6. What are the distinctions and relations between the Radiation Work Permit (RWP) and the Hazardous Work Permit (HWP)? Both are referenced in section 3.2.2 of the DP (Page 3-18, Ref. 3). With whom lie the responsibilities associated with HWPs?
7. The calculation of the  $Q_i$  values listed for the various nuclei in Tables 7-2 and 7-3 of reference 4 do not follow from the accompanying description. Please clarify.
8. Please clarify the process for review and approval of the Final Status Survey Plan after it is developed.
9. What guidance will be used for the development of the Quality Assurance Project Plan?
10. Please describe the plan for characterizing the pool leakage pathways. Will this include an investigation of the hydrology present on the site? If not please justify. Will the characterization include sampling existing waterways, existing wells, and test wells? If not please justify.
11. Beginning on page A-3 of appendix A of the DP (Ref. 3) "...areas that will require remediation or further investigation and evaluation..." are listed. One sample, Location No. 14, was a composite sample of pond sediment taken at the outfall area of the liquid waste holding tank bunker. As indicated on page A-6 of the DP and in Table 7.4 of the UVAR Characterization Survey Report (CSR) (Ref. 5) levels above the DCGL's for  $^{60}\text{Co}$

and  $^{137}\text{Cs}$  were found. Please discuss the plan for further characterization, evaluation, and remediation of the pond sediment. Please provide the estimate of the impact this activity will have on the schedule, personnel dose, waste volume, and decommissioning cost.

12. In section 7.5.1, page 7-17, of the UVAR CSR it is stated that  $^{152}\text{Eu}$  was detected in the pond sediment sample. Table 7.4 of the UVAR CSR does not list the results for  $^{152}\text{Eu}$ . Please provide those results.

#### References:

1. University of Virginia (UVA), Response to Nuclear Regulatory Commission (NRC), November 2, 2000, Request for Additional Information RE: Decommissioning Amendment Request (TAC No. MA8186), December 19, 2000.
2. Dose Assessment for the UVAR Decommissioning Plan, REFS-CALC-UVAR-001 Revision 0, Attachment of Reference 1, Prepared for the University of Virginia by GTS Duratek, December 12, 2000.
3. University of Virginia Reactor Decommissioning Plan, Prepared for the University of Virginia by GTS Duratek, February 2000.
4. Radiological Accident Analysis for UVAR Decommissioning Plan, REFS-CALC-UVAR-002, REVISION 0, Prepared for the University of Virginia by GTS Duratek, December 12, 2000.