

WASHINGTON STATE UNIVERSITY

PULLMAN, WASHINGTON 99164-1300

NUCLEAR RADIATION CENTER

November 28, 1983

Mr. Cecil O. Thomas, Chief
Standards and Special Projects Branch
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Thomas:

In accordance with the provisions of Section 5.90 of 10 CFR 50, application is hereby submitted to amend the Technical Specifications of Facility License No. R-76. The specific proposed changes are to Sections 5.4 and 4.3.3 as attached and 3.12 as described below.

The change to Section 4.3.3 is desired to more clearly define the radiation monitoring instrumentation installed at the facility and the required surveillance activities for these systems. The actual systems were reviewed by the NRC during the recent licensing of the facility and were found to be adequate as indicated in the NRC written SER on the facility. However, due to an oversight, a technical specification surveillance requirement for the Argon-41 system was omitted and that for the continuous air monitor was improperly stated. The attached proposed revised Section 4.3.3 corrects these problems and provides more clearly defined surveillance requirements for all radiation monitoring systems.

The change in Section 5.4 is desired to make this section correspond with section 4.3.3. In addition, a change is desired in paragraph (2) of Section 3.12 related to ALARA. The facility has for a number of years been monitoring the radiation background level around the site and in the Pullman area. The standard deviation of the composite data was recently calculated and found to be of the order of 19% of the measured value. Thus the 20% criteria that WSU suggested and that was put into the Technical Specifications is not statistically valid.

A more statistically meaningful criteria would be to replace the "20%" specification with a 95% confidence limit of "two sigma." That is, if the annual radiation exposure level at the closest offsite point of extended occupancy exceeds the mean offsite measured background by two sigma, one can assert with 95% confidence that the increase is due to other than background radiation. This

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November 28, 1983
Mr. Cecil O. Thomas
From W. Wilson
Page 2

ALARA criteria is really quite strict and essentially specifies "no statistically significant increase in the offsite background at the closest off-site point of extended occupancy." Accordingly, we desire the "20%" in the ALARA criteria to be changed to "two signs."

Sincerely,

W. E. Wilson

W. E. Wilson
Associate Director

WEW:efm
enclosures

Sally P. Savage
Notary Public
Bellman, Washington

APPROVED:

J. C. Sheppard
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