

WASHINGTON STATE UNIVERSITY

PULLMAN, WASHINGTON 99164

NUCLEAR RADIATION CENTER

May 29, 1979

Mr. Steve Ramos
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Ramos:

This morning I noted two typographical errors in the exponents on Page 10 of the Environmental Impact Appraisal that we recently submitted. Enclosed are 20 corrected copies of Page 10 of the EIA.

Sincerely,

W. E. Wilson

W. E. Wilson
Associate Director

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activation of argon contained in air. The Argon-41 content of reactor pool room exhaust is continuously monitored with a special gamma-ray spectrometer set to detect Argon-41. Over the past 5 years the annual averaged Argon-41 discharged from the facility amounts to 2.25% of the applicable release limit of Appendix B, Table II, Column 1 of 10 CFR 20. A small amount of tritium is produced in the pool water through neutron capture in the deuterium present in the pool water. Measurements of the ^3H level in the pool water of a number of TRIGA reactors including the W.S.U. reactor are reported on Page 170 of the August 1976 issue of Health Physics. Measurements made by the W.S.U. Radiation Safety Office agree with the reported value for the W.S.U. reactor of .045 $\mu\text{Ci/l}$. The pool evaporation rate amounts to 560 liters per day and the pool room exhaust discharge is $8.16 \times 10^{10} \text{ cm}^3$ per day. If we make the conservative assumption that the ^3H content of the pool water and evaporated water are the same, then the pool room exhaust would contain $3.1 \times 10^{-10} \mu\text{Ci/cm}^3$ of tritium. This is significantly below the applicable limit in 10 CFR 20 of $2 \times 10^{-7} \mu\text{Ci/cm}^3$. No other significant quantity of gaseous radioactive material or particulate radioactive material with a half-life greater than eight days has been released by the facility during the past 10 years.

In the event of a Loss of Coolant Accident or the Design Basis Accident, the SAR of May 1974 has shown the gaseous radioactive discharges to be minimal. The whole body dose from a cloud of fission products discharged from the facility as a result of the DBA is only 1.5 mrem. The maximum thyroid dose outside the facility was found to be .26 rem. Thus no realistic hazard to the general public would result from the DBA or a LOCA.

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