



4006 LEARNED
913-864-4965

THE UNIVERSITY OF KANSAS · LAWRENCE, KANSAS · 66045

DEPARTMENT OF CHEMICAL AND PETROLEUM ENGINEERING

September 19, 1983

Director
Division of Reactor Licensing
Nuclear Regulatory Commission
Washington, D.C. 20545

RE: Docket No. 50-148

Dear Sir:

In accordance with Facility License R-78 I submit the following annual report for the period July 1, 1982 to June 30, 1983.

1. Routine operation of the reactor accumulated .42 megawatt hours mostly at 250 kw.
2. Unscheduled shutdown occurred on March 9 and May 9, 1983. The cause was electrical transients of unknown origin.
3. Routine maintenance has been successful in avoiding any necessity for performing special preventative and corrective maintenance having safety significance.
4. There have been no changes in the facility or in the procedures nor have any test or experiments been carried out without prior approval by the NRC pursuant to 10 CFR 50.59.
5. Gross Alpha, Beta and Gamma activities released to the sanitary sewer system from the demineralizer regeneration effluent hold-up tank were less than .00112 μCi and less than .0114 μCi and $0.479 \pm 1.17 \times 10^{-1}$ μCi respectively.

6. Air samples taken outside the Reactor Building were as follows:

Alpha Activity 32 samples < MDA

average MDA $9.06 \pm 19.2 \times 10^{-15}$ $\mu\text{Ci/ml}$

0 samples > MDA

Beta Activity 20 samples < MDA
 average MDA $1.00 \pm 1.50 \times 10^{-13}$ $\mu\text{Ci/ml}$
 5 samples > MDA $2.55 \pm 1.48 \times 10^{-13}$ $\mu\text{Ci/ml}$ ave

Gamma Activity 29 samples < MDA
 average MDA $1.36 \pm 1.43 \times 10^{-12}$ $\mu\text{Ci/ml}$
 5 samples > MDA $3.58 \pm 1.86 \times 10^{-12}$ $\mu\text{Ci/ml}$ ave

7. Air samples taken inside the Reactor Building were as follows:

Alpha Activity 36 samples < MDA
 average MDA $5.01 \pm 14.4 \times 10^{-15}$ $\mu\text{Ci/ml}$
 0 samples > MDA

Beta Activity 27 samples < MDA
 average MDA $4.88 \pm 8.99 \times 10^{-14}$ $\mu\text{Ci/ml}$
 4 samples > MDA 1.29×10^{-13} $\mu\text{Ci/ml}$ ave

Gamma Activity 26 samples < MDA
 average MDA $4.26 \pm 8.52 \times 10^{-13}$ $\mu\text{Ci/ml}$
 3 samples > MDA $19.2 \pm 10.9 \times 10^{-13}$ $\mu\text{Ci/ml}$ ave

8. No facility personnel or visitors received any significant radiation exposure.

9. The membership of the University's Committee on Radiation Sources is currently:

Prof. Francis Prosser, Chairperson	Physics
Prof. Donald Robertson	Microbiology
Dr. Dennis Dahl	Health Services

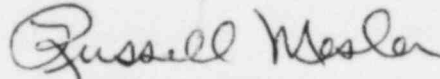
Director, Nuclear Regulatory Commission
September 19, 1983
Page 3

Prof. Robert Sanders
Prof. Russell Mesler

Biochemistry
Chemical & Petroleum
Engineering

The Nuclear Reactor Committee remains the same.

Very truly yours,

A handwritten signature in cursive script that reads "Russell Mesler".

Russell B. Mesler
Professor

RBM:be

cc: Nuclear Reactor Committee