



Chemical Engineering
102 Nuclear Reactor Center
913-UN 4-3938

THE UNIVERSITY OF KANSAS · LAWRENCE, KANSAS · 66044

DEPARTMENT OF CHEMICAL AND PETROLEUM ENGINEERING

July 23, 1982

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, 1981 to June 30, 1982.

1. Routine operation of the reactor accumulated .28 megawatt hours mostly at 250 kw.
2. Unscheduled shutdown occurred on March 31, April 7, 16 and 29, 1982. 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 Beta and Gamma activities released to the sanitary sewer system from the demineralizer regeneration effluent hold-up tank was less than .029 μCi and less than .61 μCi respectively.
6. Air samples taken outside of the Reactor Building were as follows for the period 7-01-81 to 6-30-82 (error given at 2 σ level):

Beta Activity	Average	$(1.2 \pm 1.8) \times 10^{-12} \mu\text{Ci}$
Gamma Activity	Average	$(10.2 \pm 15.7) \times 10^{-12} \mu\text{Ci}$

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Director, Nuclear Regulatory Commission
July 23, 1982
page 2

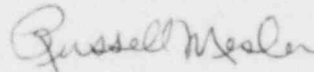
7. Air samples taken inside the Reactor Building were as follows for the period 7-01-81 to 6-30-82 (error given at 2σ level):

Beta Activity	Average	$(1.1 \pm 1.6) \times 10^{-12} \mu\text{Ci}$
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Gamma Activity	Average	$(6.4 \pm 1.5) \times 10^{-12} \mu\text{Ci}$
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8. No facility personnel or visitors received any significant radiation exposure.
9. The membership of the University's Committee on Radiation Sources remains unchanged. The Nuclear Reactor Committee remains the same.

Very truly yours,



Russell B. Mesler
Professor

RBM/dm

cc: Nuclear Reactor Committee