



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

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  $\mu\text{Ci}$  and less than .61  $\mu\text{Ci}$  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 $\sigma$  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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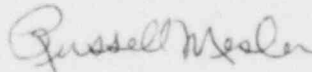
7. Air samples taken inside the Reactor Building were as follows for the period 7-01-81 to 6-30-82 (error given at  $2\sigma$  level):

Beta Activity            Average             $(1.1 \pm 1.6) \times 10^{-12} \mu\text{Ci}$

Gamma Activity        Average             $(6.4 \pm 1.5) \times 10^{-12} \mu\text{Ci}$

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