

MICHIGAN STATE UNIVERSITY

COLLEGE OF ENGINEERING  
DIVISION OF ENGINEERING RESEARCH

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February 5, 1987

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Docket No. 50-294

Pursuant to 10CFR50.59 the following is submitted as an annual report of activities and events during the period of January 1, 1986 to December 31, 1986.

1. The following experiments were performed during the period:
  - a. 16 central thimble irradiations
  - b. 276 rotary specimen rack irradiations
  - c. 3 pulse operations
2. There were no changes in facility design, performance characteristics, or operating procedures related to safety during the period.
3. The results of surveillance tests and inspections showed no deviations from previous reports so as to be noteworthy.
4. The total energy output during the period was 0.870 Megawatt-days.
5. During the period there were 15 unscheduled scrams.
  - a. 12 scrams due to the linear recorder
  - b. 1 scram due to the period meter
  - c. 2 scrams due to a shim rod drive mechanism electrical short.
6. There were no major maintenance operations performed except for the repair of the short mentioned in 5.c above.
7. There were no changes in the facility or its procedure as relates to the tests and/or experiments carried out at the facility, during the period.
8. There was no liquid radioactive waste discharged during the period.
9. The total argon-41 release during the period was 15.23 mCi or an average release of  $1.31 \times 10^{-9}$  uCi/cc or 3.3% MPC.
10. There was no release of radioactive particulate during the reporting period.

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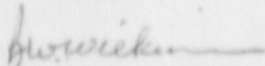
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11. The average concentration of other significant radionuclides present in gaseous form and thus discharged from our facility is estimated to be less than 20% the applicable MPC therefore no report is made of additional releases.
12. Radiation exposure to visitors of the laboratory during the period was as follows:

<u>Group or Individual</u>	<u>Dose</u>	<u>Additional Information</u>
a. John Batchelder	10m Rem	Emergency badges stored in the basement of the Engineering Building and not issued during the period showed the same exposure.
b. Kim Toto	50m Rem	Film badge 205 issued with the ring badge showed no exposure during the period.

13. Facility personnel exposure record.
  - a. There were no facility personnel exposures reported during the month of January through November. December personnel dosimeter reports are not available at this time.
14. There were no exposures in excess of the 10CFR Part 20 limits, there were no incidents of removable contamination during routine radiation surveys.

Sincerely,



Bruce W. Wilkinson  
Reactor Supervisor

c.c. USNRC - Region III