

MICHIGAN STATE UNIVERSITY

COLLEGE OF ENGINEERING · DIVISION OF ENGINEERING RESEARCH

EAST LANSING · MICHIGAN · 48824

March 5, 1980

Director of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Docket No.: 50-294

Michigan State University Triga Reactor  
License R-114  
Annual Report

Dear Sir:

Pursuant to 10CFR50-59 the following report is submitted:

1. During the operating period of January 1, to December 31, 1979 the following experiments were performed:
  - a. 55 central thimble irradiations
  - b. 1547 rotary specimen rack irradiations
  - c. total operation of 1.65 megawatt-days
2. Records indicate  $^{41}\text{Ar}$  releases totalling 2224  $\mu\text{Ci}$  or an average release rate of  $1.88 \times 10^{-10} \mu\text{Ci/ml}$ .
3. Tank bottom deflection has been monitored regularly with no apparent change or trends.
4. There were seven unscheduled scrams during the reporting period:

<u>DATE</u>	<u>SCRAM</u>	<u>CAUSE</u>
5/22/79	PERIOD	Operator error--log channel over compensated.
8/16/79	PERIOD	Transient in log recorder circuit.
10/17/79	RECORDER	Transient in linear recorder circuit.
11/27/79	RECORDER	Noise transient in linear recorder circuit.
11/27/79	RECORDER	Noise transient in linear recorder circuit.
11/28/79	RECORDER	Noise transient in linear recorder circuit. Noise apparently caused by loose connection in amplifier circuit.
12/27/79	RECORDER	Noise transient in linear recorder circuit. Noise apparently caused by improper grounding of recorder chassis.

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5. The renewal process for License R-114 continued with the submission of an Environmental Impact Appraisal and revised Physical Security Plan.
6. A computer based gamma spectroscopy system was obtained for activation experiments and environmental monitoring.
7. There are currently three students being trained as operators.

Sincerely,

*James Carrick*

James Carrick  
Reactor Supervisor