

## ANNUAL OPERATING REPORT

Idaho State University  
AGN-201 Nuclear Reactor  
Pocatello, ID 83209

### 1) Brief Narrative of Changes

There have been no changes in facility design, performance characteristics or operating procedures relating to reactor safety during the calendar year, 1984.

- a) A visual inspection of the control rod drive mechanisms was satisfactory.
- b) Scram drop times of all control rods were less than 100 milliseconds.
- c) Rod run-up times were measured and average reactivity insertion rates calculated. The maximum average reactivity insertion rate was 0.040% per second for the course control rod.
- d) Channel tests of all safety channels and interlocks have been satisfactory.
- e) Power and period calibrations were performed and no significant changes from the previous calibration were found.
- f) The shield tank was inspected and no excessive corrosion or water leakage was apparent.
- g) Shutdown margin was measured and found to be 2.19% reactivity.

### 2) Monthly Tabulation of Reactor Operating Hours for 1984:

Month	Hours	Month	Hours
January	7.09	July	-0-
February	11.46	August	0.45
March	5.16	September	12.50
April	29.04	October	14.02
May	-0-	November	2.38
June	-0-	December	-0-

### 3) List of Unscheduled Shutdowns: None.

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4) Discussion of Major Safety Related Corrective Maintenance

On March 27, 1984, instrument number 2 became erratic during routine checkout. The Channel #2 high voltage power supply was erratic. All attempts to repair the original vacuum tube supply were futile and the supply was replaced with an equivalent solid state power supply. After power supply replacement, all Channel #2 shutdowns were operationally tested satisfactorily.

5) Changes to the Facility

- a) There have been no changes to the facility as described in the application for license.
- b) There have been no changes to the procedures as described in the facility Technical Specifications.
- c) No new experiments were performed with the AGN-201 reactor during the calendar year, 1984.

6) Summary of Safety Evaluations

There were no new changes, tests, or experiments approved or performed during this reporting period.

7) Summary of Radioactive Effluents Released or Discharged to the Environment.

Liquid		Airborne		Solid	
Curies	Volume	Curies	Volume	Curies	Volume
0	0	0	0	0	0

8) Summary of Radiological Surveys Outside the Facility

No environmental surveys have been performed outside the facility.

- 9) No person received greater than 100 millirem during this reporting period, and no person under 18 years of age received greater than 50 millirem.



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Pocatello, Idaho  
83209

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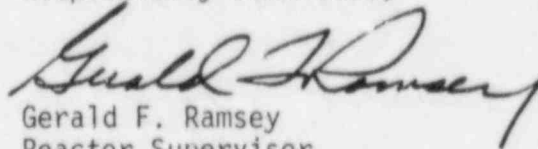
27 June 1985

Cecil O. Thomas, Chief  
Division of Licensing Standardization  
and Special Projects Branch  
Mail Stop 34D  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Dear Mr. Thomas:

Attached is the Annual Operating Report for the Idaho State University AGN-201 Nuclear Reactor, License R-110, Docket No. 50-284, for the calendar year, 1984.

Respectfully submitted,

  
Gerald F. Ramsey  
Reactor Supervisor

GFR:bgs

CC: V. Charyulu, Dean, School of Engineering  
U. S. Nuclear Regulatory Commission  
C/O Document Management Branch  
Washington, DC 20555

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