



UNM SCHOOL of ENGINEERING

Department of Nuclear Engineering

August 28, 2018

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Enclosed is the 2018 Annual Report for the AGN-201M reactor located at the University of New Mexico - Docket 50-252.

Sincerely,

Robert D. Busch, Ph.D, P.E.
Chief Reactor Supervisor

Gary W. Cooper, Ph.D.
Reactor Administrator

ec: Ed Helvenston: Edward.Helvenston@nrc.gov

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REPORT ON FACILITY LICENSE NO. R-102

THE UNIVERSITY OF NEW MEXICO

JULY 1, 2017 - JUNE 30, 2018

The University of New Mexico's AGN-201M reactor was only used for teaching and training during 2017-2018. There were no changes in facility design, performance characteristics, or operating procedures related to reactor safety during the reporting period.

The AGN-201M Reactor Facility is an essential part of our educational program, including public education, and continues to serve us well. The use of the reactor from July of 2017 through June of 2018 was as follows:

| Type of Use | July 17 - June 18 Hours | July 17 - June 18 Watt-hours |
|---------------------------------------|----------------------------|---------------------------------|
| Class Demonstrations | 0.0 | 0.0 |
| Faculty Research | 0.0 | 0.0 |
| Graduate Student Research | 0.0 | 0.0 |
| Maintenance and Equipment Check | 27.0 | 0.0 |
| Operator Training and Requalification | 45.7 | 99.7 |
| Teaching | 85.7 | 180.5 |
| Totals for the Year | 158.4 | 280.2 |

During the annual maintenance in August 2017, we checked the detector cans and found the poly containers for Channel 1, Channel 2, and Channel 3 to be in good condition. The poly containers appear to be holding up well in the water environment. All detector cans will be inspected again as part of the 2018 annual maintenance.

There were no changes to the facility as it is described in the application for license and amendments thereto, nor were there any changes to the procedures as described in Facility Technical Specifications. No new experiments were performed during the reporting period.

During the reporting period, construction was completed on the building just to the east of the Nuclear Engineering Laboratory. A 10 CFR 50.59 review was completed on the impact of those activities to the facility. It was determined that there is no 50.59 impact to the facility from the construction activities.

During the reporting period, there was no liquid radioactive waste released from the facility nor was there any solid waste released. The annual environmental radiation surveys was performed and is attached to this report. All personnel exposures during the reporting period were below 50 mrem per person with the majority of personnel receiving below 5 mrem. No facility visitors received measurable exposures.

An outside environmental survey was performed on March 9, 2018. The radiation levels were all in accordance with those from previous surveys. At 60% licensed operating power, the highest reading outside the facility was 0.174 mR/hr gamma with 0.4 mrem/hr neutron dose rate.

As of March 1, 2018, the university has a new President, Garnett Stokes.

The current personnel assignments are (as of July 1, 2018):

| | |
|---|---|
| UNM President | Garnett Stokes |
| Chair, Dept. of Nuclear Engineering | Anil K. Prinja |
| Reactor Administrator | Gary W. Cooper |
| Chief Reactor Supervisor | Robert D. Busch |
| USNRC-licensed Senior Reactor Operators | Robert D. Busch Ken Carpenter Gary Cooper |
| USNRC-licensed Reactor Operators | none at end of reporting period |
| Reactor Operators (inactive) | Stephanie Brabson (inactive as of 10/1/17) Jedediah Styron (inactive as of 7/1/18) Nathan Toleman (inactive as of 7/1/17) |

The makeup of the Reactor Safety Advisory Committee as of June 30, 2018 is:

James Bryson
Matt Burger
Charles Harmon II
David Hayes
David Hinder
Ron Knief
David Summers

There are currently no vacant positions on the committee.

The University of New Mexico's AGN-201M reactor continues to be used extensively for teaching experiments as a part of our undergraduate and graduate programs. These experiments include approach-to-critical, reactor period and reactivity measurements, importance functions measurements, sample activation, control rod calibrations, and reactor power and neutron fluence measurements. The reactor is also used throughout the Fall, Spring and Summer sessions of the University. All experiments have received prior approval from our Reactor Safety Advisory Committee.

Gary W. Cooper
Reactor Administrator