



UNM

SCHOOL of ENGINEERING

Department of Nuclear Engineering

September 5, 2019

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

Enclosed is the 2019 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

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

AMERICAN UNIVERSITY

UNIVERSITY OF NEW MEXICO
1200 FARRIS ENGINEERING CENTER

REACTOR ADMINISTRATOR
UNIVERSITY OF NEW MEXICO

A020
NRR

REPORT ON FACILITY LICENSE NO. R-102

THE UNIVERSITY OF NEW MEXICO

JULY 1, 2018 - JUNE 30, 2019

The University of New Mexico's AGN-201M reactor was only used for teaching and training during 2018-2019. 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 2018 through June of 2019 was as follows:

Type of Use	July 18 - June 19 Hours	July 18 - June 19 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	17.1	0.0
Operator Training and Requalification	49.3	69.5
Teaching	100.0	214.0
Totals for the Year	166.4	283.5

During the annual maintenance in August 2018, 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 2019 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, there were no unplanned scrams. There were three maintenance activities that underwent 10 CFR 50.59 reviews. In two cases, it was a simple maintenance; one involving reconnection of a wire and the other re-soldering of a switch activation arm. In the last case, the maintenance was determined to be a like-for-like so there was no 50.59 impact to the facility.

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 July 1, 2019, the department has a new interim chair, Dr. Charles Fleddermann.

The current personnel assignments are (as of July 1, 2019):

UNM President
Interim Chair, Dept. of Nuclear Engineering
Reactor Administrator
Chief Reactor Supervisor

Garnett Stokes
Charles Fleddermann
Gary W. Cooper
Robert D. Busch

USNRC-licensed Senior
Reactor Operators

Robert D. Busch
Ken Carpenter
Gary Cooper
Carl Willis

USNRC-licensed
Reactor Operators

Rowdy Davis
Jacob Hunt

Reactor Operators (inactive)

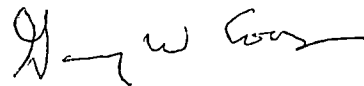
Jedediah Styron (inactive as
of 7/1/19)

The makeup of the Reactor Safety Advisory Committee as of June 30, 2019 is:

James Bryson
Matt Burger
Charles Harmon II
David Hayes
David Hindera
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