

UNIVERSITY OF NEW MEXICO

DOCKET NO. 50-252

UNIVERSITY OF NEW MEXICO AGN-201M REACTOR

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 5
License No. R-102

1. The U.S. Nuclear Regulatory Commission (NRC or the Commission) has found that:
 - A. The application for an amendment to Renewed Facility Operating License No. R-102, filed by The University of New Mexico (the licensee) on December 15, 2014, as supplemented by letters dated March 4, 2015, September 28, 2015, May 22, 2017, September 19, 2017, and March 28, 2018, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in Title 10 of the *Code of Federal Regulations* (10 CFR) Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this license amendment is in accordance with 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," of the Commission's regulations and all applicable requirements have been satisfied.
 - F. Prior notice of this amendment was not required by 10 CFR 2.105, "Notice of proposed action," and publication of a notice for this amendment is not required by 10 CFR 2.106, "Notice of issuance."

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the Attachment 2 to this license amendment, and paragraph 2.C.2 of Renewed Facility Operating License No. R-102 is hereby amended to read as follows:

Technical Specifications

The technical specifications contained in Appendix A, as revised by Amendment No. 5, are hereby incorporated in the license. The licensee shall operate the reactor in accordance with the technical specifications.

3. The license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Steven T. Lynch, Acting Chief
Research and Test Reactors Licensing Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Attachments:

1. Changes to Renewed Facility Operating License No. R-102
2. Changes to Appendix A, "Technical Specifications"

Date of Issuance: XX

ATTACHMENT TO LICENSE AMENDMENT NO. 5
RENEWED FACILITY OPERATING LICENSE NO. R-102
DOCKET NO. 50-252

Replace the following page of the Renewed Facility Operating License No. R-102 with the revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Facility Operating License

Remove

Page 3

Insert

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3. Pursuant to the Act and 10 CFR Part 30 to possess, use, and transfer but not to separate, except for byproduct material produced in non-fueled experiments, such byproduct material as may be produced by operation of the reactor.
- C. This license shall be deemed to contain and is subject to the conditions specified in Parts 20, 30, 50, 51, 55, 70, and 73 of the Commission's regulations in 10 CFR Chapter 1; is subject to all applicable provisions of the Act and rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:
1. Maximum Power Level
The licensee is authorized to operate the reactor at a steady-state power level not to exceed 5 watts (thermal).
 2. Technical Specifications
The technical specifications contained in Appendix A, as revised by Amendment No. 5, are hereby incorporated in the license. The licensee shall operate the reactor in accordance with the technical specifications.
 3. Physical Security Plan
The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security plan, including amendments and changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The approved physical security plan consists of a University of New Mexico document, withheld from public disclosure pursuant to 10 CFR 73.21, entitled, "The Physical Security Plan for the University of New Mexico AGN-201M Reactor Facility," dated February 13, 2007, as revised.

ATTACHMENT TO LICENSE AMENDMENT NO. 5
RENEWED FACILITY OPERATING LICENSE NO. R-102

DOCKET NO. 50-252

Replace the following pages of the Appendix A, "Technical Specifications," with the revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Technical Specifications

Remove

Cover Page

Page 1

Page 2

Page 3

Page 4

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Pages 11-12

Page 16

Pages 21-25

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Insert

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Page 1

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LICENSE NUMBER R-102
TECHNICAL SPECIFICATIONS
FOR
THE UNIVERSITY OF NEW MEXICO AGN-201M REACTOR
SERIAL NUMBER 112
DOCKET NUMBER 50-252
REVISED MONTH 2018

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1.0 DEFINITIONS

The terms Safety Limit (SL), Limiting Safety System Setting (LSSS), and Limiting Conditions for Operation (LCO) are as defined in 10 CFR 50.36. Those definitions are included here for ease of reference.

1.1 Definitions

- 1.1.1 Cadmium Rod - An aluminum rod wrapped with Cd and inserted into the glory hole to assure that the reactor is secured. The rod is worth at least \$7 of negative reactivity.
- 1.1.2 Channel Calibration - A channel calibration is an adjustment of the channel such that its output responds, within acceptable range and accuracy, to known values of the parameter that the channel measures. Calibration shall encompass the entire channel, including equipment, actuation, alarm, or trip.
- 1.1.3 Channel Check - A channel check is a qualitative verification of acceptable performance by observation of channel behavior. This verification may include comparison of the channel with other independent channels or methods measuring the same variable.
- 1.1.4 Channel Test - A channel test is the introduction of a signal into the channel to verify that it is operable.
- 1.1.5 Coarse Control Rod - The control rod with a scram function that can be mechanically withdrawn/inserted at two possible speeds (40-50 seconds full insertion time or 80-100 seconds full insertion time).
- 1.1.6 Excess Reactivity - The amount of reactivity above a $k_{\text{eff}} = 1$. This is the amount of reactivity that would exist if all control rods were moved to the maximum reactive condition from the point where the reactor is exactly critical ($k_{\text{eff}} = 1$).
- 1.1.7 Experiment - An experiment is any of the following:
 - a. An activity utilizing the reactor system or its components or the neutrons or radiation generated therein;
 - b. An evaluation or test of a reactor system operational, surveillance, or maintenance technique;
 - c. The material content of any of the foregoing, including structural components, encapsulation or confining boundaries, and contained fluids or solids.

- 1.1.8 Experimental Facilities – Experimental facilities are those portions of the reactor assembly used for the introduction of experiments into or adjacent to the reactor core region or to allow beams of radiation to exist outside the reactor shielding. Experimental facilities shall include the thermal column, glory hole, and access ports.
- 1.1.9 Explosive Material - Explosive material is any solid or liquid which is given an Identification of Reactivity (Stability) index of 2, 3, or 4 by the National Fire Protection Association in its 704 Diamond, Hazard Rating System.
- 1.1.10 Fine Control Rod - A low worth control rod (about 25% of the worth of the other control rods) used primarily to maintain an intended power level. Its position may be varied manually. The fine control rod does not drop on a scram signal, but withdraws automatically.
- 1.1.11 Limiting Conditions for Operation (LCO) - The lowest functional capability or performance levels of equipment required for safe operation of the facility.
- 1.1.12 Limiting Safety System Setting (LSSS) - Settings for automatic protective devices related to those variables having significant safety functions.
- 1.1.13 Major Change - Any change in reactor configuration which affects the probability or consequences of an event.
- 1.1.14 Measured Value - The measured value is the value of a parameter as it appears on the output of a channel.
- 1.1.15 Measuring Channel - A measuring channel is the combination of sensor, lines, amplifiers, and output devices which are connected for the purpose of measuring or responding to the value of a process variable.
- 1.1.16 Movable Experiment - A movable experiment is one that may be inserted, removed, or manipulated while the reactor is critical.
- 1.1.17 Operable - Operable means a component or system is capable of performing its intended function in its normal manner.
- 1.1.18 Operating - Operating means a component or system is performing its intended function in its normal manner.
- 1.1.19 Potential Reactivity Worth - The potential reactivity worth of an experiment is the maximum absolute value of the reactivity change that would occur as a result of intended or anticipated changes or credible malfunctions that alter experiment position or configuration.

1.1.20 Reactor Component - A reactor component is any apparatus, device, or material that is a normal part of the reactor assembly.

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- 1.1.21 Reactor Operation - Reactor operation is any condition wherein the reactor is not secured.
- 1.1.22 Reactor Operator - An individual who is licensed to manipulate the controls of a reactor.
- 1.1.23 Reactor Safety System - The reactor safety system is that combination of safety channels and associated circuitry which forms an automatic protective system for the reactor or provides information that requires manual protective action be initiated.
- 1.1.24 Reactor Secured - The reactor shall be considered secured whenever:
- a. either:
 - 1. The safety and control rods are fully withdrawn from the core; or
 - 2. The core fuse melts resulting in separation of the core.
 - and:
 - b. the reactor console key switch is in the "off" position; the key is removed from the console and under the control of a certified operator; and the Cd rod is in the glory hole.
- 1.1.25 Removable Experiment - A removable experiment is any experiment, experimental facility, or component of an experiment, other than a permanently attached appurtenance to the reactor system, which can reasonably be anticipated to be moved one or more times during the life of the reactor.
- 1.1.26 Research Reactor - A research reactor is a device designed to support a self-sustaining neutron chain reaction for research, development, educational, training, or experimental purposes, and which may have provisions for producing radioisotopes.
- 1.1.27 Safety Channel - A safety channel is a measuring channel in the reactor safety system.
- 1.1.28 Safety Control Rod - One of two scrammable control rods that can be mechanically withdrawn/inserted at only one speed (35 to 50 seconds full insertion time).

- 1.1.29 Safety Limit (SL) - Limits upon important process variables that are found to be necessary to reasonably protect the integrity of certain of the physical barriers that guard against the uncontrolled release of radioactivity.
- 1.1.30 Scram Time - The time for the control rods acting under gravity to change the reactor from a critical to a subcritical condition. In most cases, this is less than or equal to the time it takes for the rod to fall from full-in to full-out position.

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- 1.1.31 Secured Experiment - Any experiment, or component of an experiment is deemed to be secured, or in a secured position, if it is held in a stationary position relative to the reactor by mechanical means. The restraint shall exert sufficient force on the experiment to overcome the expected effects of hydraulic, pneumatic, buoyant, or other forces which are normal to the operating environment of the experiment or which might arise as a result of credible malfunctions.
- 1.1.32 Senior Reactor Operator – An individual who is licensed to direct the activities of reactor operators. Such an individual is also a reactor operator.
- 1.1.33 Shall, Should and May - The word "shall" is used to denote a requirement; the word "should" to denote a recommendation; and the word "may" to denote permission--neither a requirement nor a recommendation.
- 1.1.34 Shutdown Margin - Shutdown margin shall mean the minimum shutdown reactivity necessary to provide confidence that the reactor can be made subcritical by means of the control and safety systems starting from any permissible operating condition with the most reactive safety or coarse control rod fully inserted and the fine control rod fully inserted, and that the reactor will remain subcritical without further operator action.
- 1.1.35 Static Reactivity Worth - The static reactivity worth of an experiment is the value of the reactivity change measurable by calibrated control or regulating rod comparison methods between two defined terminal positions or configurations of the experiment. For removable experiments, the terminal positions are fully removed from the reactor and fully inserted or installed in the normal functioning or intended position.
- 1.1.36 Surveillance Time - A surveillance time indicates the frequency of tests to demonstrate performance. Allowable surveillance intervals shall not exceed the following:
- a. Two-year (interval not to exceed 30 months)
 - b. Annual (interval not to exceed 15 months)
 - c. Semiannual (interval not to exceed seven and one-half months)
 - d. Quarterly (interval not to exceed four months)
 - e. Monthly (interval not to exceed six weeks).

3.0 LIMITING CONDITIONS FOR OPERATION

3.1 Reactor Core Parameters

Applicability

This specification applies to the reactivity condition of the reactor and the reactivity worths of control rods and experiments.

Objective

To assure that the reactor can be shut down at all times and that the safety limits will not be exceeded.

Specification

- a. The available excess reactivity with the coarse, fine, and safety control rods fully inserted and including the potential absolute value of the reactivity worth of all experiments shall not exceed 0.65% $\Delta k/k$.
- b. The shutdown margin shall be at least one dollar.
- c. The reactivity worth of the control rods shall ensure subcriticality on the withdrawal of the coarse control rod or any one safety rod.
- d. The excess reactivity with no experiments in the reactor and the coarse, fine, and safety control rods fully inserted shall not exceed 0.25% $\Delta k/k$.

Basis

The limitations on total core excess reactivity assure reactor periods of sufficient length so that the reactor protection system and/or operator action will be able to shut the reactor down without exceeding any safety limits. The shutdown margin and control and safety rod reactivity limitations assure that the reactor can be brought and maintained subcritical if the highest reactivity rod fails to scram and remains in its most reactive position.

3.3 Limitations on Experiments

Applicability

This specification applies to experiments installed in the reactor and its experimental facilities.

Objective

To prevent damage to the reactor or excessive release of radioactive materials in the event of an experimental failure.

Specification

- a. Experiments outside the reactivity limits defined in TS 3.1 shall not be permitted.
- b. Experiments within the reactivity limits defined in TS 3.1 containing materials corrosive to reactor components or which contain gaseous or liquid fissionable materials shall be doubly encapsulated.
- c. Explosive materials or materials which might combine violently shall not be inserted into experimental facilities of the reactor or irradiated in the reactor.
- d. The radioactive material content, including fission products, of any doubly encapsulated experiment should be limited so that the complete release of all gaseous, particulate, or volatile components from the encapsulation could not result in:
 - (1) a total effective dose equivalent to any person occupying an unrestricted area in excess of 0.1 rem (0.001 Sv) or
 - (2) a total effective dose equivalent to any person occupying a restricted area during the length of time required to evacuate the restricted area in excess of 5 rem (0.050 Sv).

Basis

These specifications are intended to reduce the likelihood of damage to reactor components and/or radioactivity releases resulting from an experimental failure and to protect operating personnel and the public from excessive radiation doses in the event of an experimental failure. Specification 3.3d conforms to 10 CFR 20 as of the date of this revision.

3.4 Radiation Monitoring, Control And Shielding

Applicability

This specification applies to radiation monitoring, control, and reactor shielding required during reactor operation.

Objective

The objective is to protect facility personnel and the public from radiation exposure.

Specification

During Reactor Operation:

- a. An operable portable radiation survey instrument capable of detecting gamma radiation shall be immediately available to reactor operating personnel.
- b. The reactor room shall be considered a restricted area according to 10CFR20.
- c. The top of the reactor shall be considered a high radiation area, and the access stairs to the top of the reactor shall be equipped with a gate and a lock for access control. The keys for the gate shall be in control of the reactor operator.
- d. The following shielding requirement shall be fulfilled:
The thermal column shall be filled with water or graphite except during a critical experiment (core loading) or during other approved experiments that require the thermal column to be empty.
- e. The core tank shall be sealed.

Basis

Radiation surveys performed under the supervision of a qualified health physicist have shown that the total gamma, thermal neutron, and fast neutron radiation dose rate in the reactor room, at the closest approach to the reactor but without access to reactor top, is less than 50 mrem/hr at reactor power levels of 5.0 watts.

When the reactor is secured, radiation levels at all points in the reactor room are below 100 μ rem/hr. The facility shielding in conjunction with radiation monitoring, control, and restricted areas is designed to limit radiation doses to facility personnel and to the public to a level below 10 CFR 20 limits under all conditions.

4.4 Radiation Monitoring and Control

Applicability

This specification applies to the surveillance requirements of the radiation monitoring and control systems.

Objective

To assure that the radiation monitoring and control systems are operable and that all radiation and high radiation areas within the reactor facility are identified and controlled as required by Specification 3.4.

Specification

- a. All portable radiation survey instruments assigned to the reactor facility shall be calibrated annually under the supervision of the Radiation Safety Office.
- b. The reactor access control (Ref 3.4c) shall be verified to be operable prior to the first reactor startup of the day or prior to each reactor operation extending more than one day.
- c. A radiation survey of the reactor room shall be performed under the supervision of the Radiation Safety Officer to determine the location of radiation and high radiation areas corresponding to reactor operating power levels and to verify that the thermal column is providing shielding. This survey shall be performed as necessary but at least annually.

Basis

The periodic calibration of radiation monitoring equipment and the surveillance of the reactor access control (Ref 3.4c) will assure that the radiation monitoring and control systems are operable during reactor operation.

The periodic radiation surveys will verify the location of radiation and high radiation areas and will assist reactor facility personnel in properly labeling and controlling each location in accordance with 10 CFR 20.

6.0 ADMINISTRATIVE CONTROLS

6.1 Organization

The current administrative organization for control of the reactor facility and its operation is as set forth in Figure 1. Levels 1, 2, and 3 refer to administrative levels for which changes in staffing must be communicated to the Nuclear Regulatory Commission as set forth in 6.9.3. The authorities and responsibilities set forth below are designed to comply with the intent and requirements for administrative controls of the reactor facility as set forth by the Nuclear Regulatory Commission.

6.1.1 *UNM Administration*

Has administrative responsibilities for all activities on Campus. The President (Level 1) is the chief administrative officer responsible for the University and in whose name the application for licensing is made. The Radiation Control Committee is a permanent committee established to act on behalf of the President of the University for control of all University of New Mexico (UNM) activities involving sources of ionizing radiation. The Committee consists of members from the UNM faculty/staff. Meetings are held regularly. Responsibilities are: to establish policy and disseminate rules for radiation safety and control at UNM; to serve as the UNM liaison with the NRC in matters of registration, licensing, and radiation control; and to ensure periodic inspections and radiation surveys for the purpose of assuring the safety of radiation operations within any UNM facility.

6.1.2 *Chair, Department of Nuclear Engineering*

The chair (Level 1) is the administrative officer responsible for the operation of the Department, for its financial affairs and for appointing the Reactor Administrator. The Chair is responsible for appointing members of the Reactor Safety Advisory Committee (RSAC) and the RSAC reports to the chair on all matters.

6.1.3 *Reactor Administrator*

Provides final policy decisions on all phases of reactor operation and regulations for the facility. The Reactor Administrator (Level 2) is selected by the Chair of the Nuclear Engineering Department and shall hold a graduate degree in Engineering. The Reactor Administrator is advised on matters concerning personnel health and safety by the Radiation Safety Officer and/or the Radiation Control Committee. The Reactor Administrator is advised on matters concerning safe operation of the reactor by the Reactor Operations Committee and/or the Reactor Safety Advisory Committee; designates Reactor Supervisors and names the Chief Reactor Supervisor; approves all regulations, instructions and procedures governing facility operation; and submits the annual report to NRC.

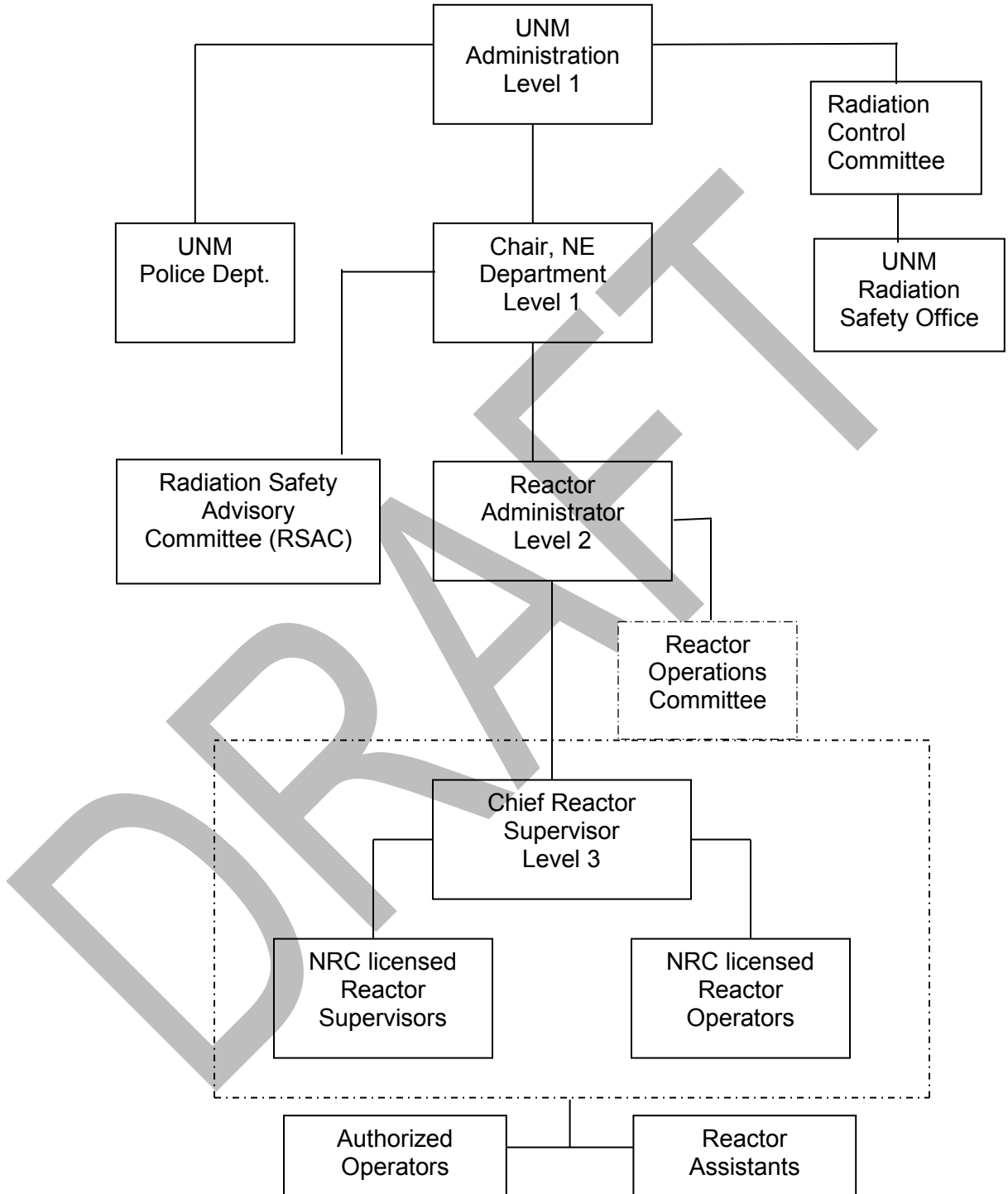


Figure 1

6.1.4 *Radiation Safety Office*

The Radiation Safety Office will provide emergency direction and assistance for situations involving radiation safety. The UNM Radiation Safety Officer or designee normally represents the Radiation Control Committee in matters concerning the radiation safety aspects of reactor operation.

6.1.5 *Reactor Safety Advisory Committee*

Reviews, evaluates, and audits reactor operations and procedures to ensure that the reactor shall be operated in a safe and competent manner. There shall be at least four members on the RSAC with at least two members from organizations outside the University. The Committee is available for advice and assistance on reactor operation problems. Any major change in the facility shall be approved by the RSAC. Members of the RSAC are appointed by the Department Chair and shall not be members of the Reactor Operations Committee. The RSAC reports to the Chair and advises the Reactor Administrator.

6.1.6 *Reactor Operations Committee*

Consists of the Reactor Supervisors with the Chief Reactor Supervisor. Other qualified persons may also be members. They are directly responsible to the Reactor Administrator for the preparation and submission of detailed procedures, regulations, forms, and rules to ensure the maintenance, safe operation, competent use and security of the facility. The Committee ensures that all the activities, experiments, and maintenance involving the facility are properly logged and are in accordance with established local and U.S. Nuclear Regulatory Commission regulations. They review all proposed changes in procedure or changes in the facility and approve any minor change before the change is implemented.

6.1.7 *Chief Reactor Supervisor*

Shall hold a Senior Reactor Operator's license issued by the NRC. He/she is responsible for the distribution and enforcement of rules, regulations and procedures concerning operation of the facility. The Chief Reactor Supervisor (Level 3) is directly responsible for enforcing operating procedures and ensuring that the facility is operated in a safe, competent and authorized manner. He/she is directly responsible for all prescribed logs and records; is the Emergency Director for emergencies not involving radiation; and has the authority to authorize experiments or procedures which have received appropriate prior approval by the Reactor Operations Committee, the Reactor Safety Advisory Committee and/or the Radiation Control Committee (or the Radiation Safety Officer) and have received prior authorization by the Reactor Administrator. He/she shall not authorize any proposed changes in the facility or in procedure until appropriate evaluation and approval has been made by the Reactor Operations Committee or the Reactor Safety Advisory Committee and authorization given by the Reactor Administrator.

6.1.8 *Reactor Supervisors*

Shall hold valid Senior Reactor Operator's licenses issued by the Nuclear Regulatory Commission. A Reactor Supervisor shall be in charge of the facility at all times during reactor operation and shall witness the startup and intentional shutdown procedures. A Senior Reactor Operator is required to be present whenever fuel is handled. The Reactor Supervisors are directly responsible to the Chief Reactor Supervisor. A Reactor Supervisor shall be present when the reactor is going critical, being intentionally shut down, or when reactor experiments are loaded or unloaded. The location of the Reactor Supervisor shall be known to the Reactor Operator at all times during operation so that it is possible to contact him/her if required.

6.1.9 *Reactor Operators*

Shall hold a valid Reactor Operator's license issued by the NRC. They shall conform to the rules, instructions and procedures for the startup, operation and shutdown of the reactor, including emergency procedures. Within the constraints of the administrative and supervisory controls outlined above, a reactor operator will be in direct charge of the control console at all times that the reactor is operating. The reactor operator shall maintain complete and accurate records of all reactor operations in the operational logs.

6.1.10 *Authorized Operators*

Individuals authorized by the Reactor Supervisor to operate the reactor controls and who do so with the knowledge of the Supervisor and under the direct supervision of a Reactor Operator.

6.1.11 *Reactor Assistants*

These are individuals who are present during reactor operation to provide assistance to the Operator as needed, with the exception that a Reactor Assistant does not operate the controls of the reactor. In an emergency, or if asked, they may push the Reactor Scram button.

6.1.12 *Operating Staff*

- a. The minimum operating staff during any time in which the reactor is not secured shall consist of all of the following:
 1. One Reactor Operator or Reactor Supervisor in the reactor room.
 2. One other person in the reactor room or Nuclear Reactor Laboratory qualified to activate manual scram and initiate emergency procedures.
 3. One radiation safety staff member who can be readily contacted by telephone and who can arrive at the reactor facility within 30 minutes.
 4. One Reactor Supervisor readily available on call. This requirement can be satisfied by having a licensed Reactor Supervisor perform the duties stated in paragraph 1 or 2 above or by designating a licensed Reactor Supervisor who can be readily contacted by telephone and who can arrive at the reactor facility within 30 minutes.
- b. A Senior Reactor Operator shall supervise all reactor maintenance or modification which could affect the reactivity of the reactor.
- c. A listing of reactor facility personnel by name and phone number shall be conspicuously posted in the reactor room.

6.2 Staff Qualifications

The Chief Reactor Supervisor, licensed Reactor Supervisors and Reactor Operators, and technicians performing reactor maintenance shall meet the minimum qualifications set forth in ANSI 15.4, "Standards for Selection and Training of Personnel for Research Reactors". Reactor Safety Advisory Committee members shall have a minimum of five (5) years experience in a technical profession or a baccalaureate degree and two (2) years of professional experience. The Radiation Safety Officer shall have a baccalaureate degree in biological or physical science and have at least two (2) years experience in health physics.

6. Personnel error or procedural inadequacy which prevents, could prevent, by itself, the fulfillment of the functional requirements of system(s) used to cope with accidents analyzed in the Safety Analysis Report.

7. Unscheduled conditions arising from natural or manmade events that, as a direct result of the event, require reactor shutdown, operation of safety systems, or other protective measures required by Technical Specifications.

8. Errors discovered in the analyses or in the methods used for such analyses as described in the Safety Analysis Report or in the bases for the Technical Specifications that have or could have permitted reactor operation in a manner less conservative than assumed in the analysis.

9. Release of radiation or radioactive materials from site above allowed limits.

10. Performance of structures, systems, or components that requires remedial action or corrective measures to prevent operation in a manner less conservative than assumed in the accident analysis in the SAR or Technical Specifications that require remedial action or corrective measures to prevent the existence or development of an unsafe condition.

6.9.3 Special Reports

Special reports which may be required by the Nuclear Regulatory Commission shall be submitted to the Director, Office of Nuclear Reactor Regulation, USNRC within the time period specified for each report. This includes personnel changes in Level 1 (University President), Level 1 (NE Chair), Level 2 (Reactor Administrator), or Level 3 (Chief Reactor Supervisor) administration, as shown in Figure 1, which shall be reported within 30 days of such a change.

6.10.2 Records to be Retained for the Life of the Facility

- a. Records of liquid and solid radioactive effluent released to the environs.
- b. Off-site environmental monitoring surveys.
- c. Fuel inventories and fuel transfers.
- d. Radiation exposures for all personnel.
- e. Drawings of the facility.
- f. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.
- g. Records of meetings of the Reactor Safety Advisory Committee, and copies of RSAC audit reports.
- h. Records of the review of:
 - Violations of any safety limit (SL)
 - Violations of any limiting safety system setting (LSSS)
 - Violations of any limiting condition of operation (LCO)

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