



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

July 5, 2018

Dr. Marylou Dunik-Gougar
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SUBJECT: IDAHO STATE UNIVERSITY – U.S. NUCLEAR REGULATORY COMMISSION
ROUTINE INSPECTION REPORT NO. 50-284/2018-201

Dear Dr. Dunzik-Gougar:

On June 11-14, 2018, the U.S. Nuclear Regulatory Commission (NRC) conducted an inspection at the Idaho State University AGN-201M Research Reactor Facility. The enclosed report documents the inspection results, which were discussed on June 14, 2018, with you, the campus Radiation Safety Officer, and the Reactor Supervisor.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspector reviewed selected procedures and records, observed various activities, and interviewed personnel. Based on the results of this inspection, no findings of significance were identified. No response to this letter is required.

In accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public inspections, exemptions, requests for withholding," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (Agencywide Documents Access and Management System (ADAMS)). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

M. Dunzik-Gougar

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Should you have any questions concerning this inspection, please contact Craig Bassett at 240-535-1842 or by electronic mail at Craig.Bassett@nrc.gov.

Sincerely,

/RA/

Anthony J. Mendiola, Chief
Research and Test Reactors Oversight Branch
Division of Licensing Projects
Office of Nuclear Reactor Regulation

Docket No. 50-284
License No. R-110

Enclosure:
As stated

cc w/enclosure: See next page

Idaho State University

Docket No. 50-284

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SUBJECT: IDAHO STATE UNIVERSITY – U.S. NUCLEAR REGULATORY COMMISSION
ROUTINE INSPECTION REPORT NO. 50-284/2018-201 DATED JULY 5, 2018

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U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION

Docket No: 50-284

License No: R-110

Report No: 50-284/2018-201

Licensee: Idaho State University

Facility: AGN-201M Research Reactor Facility

Location: Pocatello, Idaho

Dates: June 11-14, 2018

Inspector: Craig Bassett

Approved by: Anthony J. Mendiola, Chief
Research and Test Reactors Oversight Branch
Division of Licensing Projects
Office of Nuclear Reactor Regulation

Enclosure

EXECUTIVE SUMMARY

Idaho State University
AGN-201M Research Reactor Facility
NRC Inspection Report No. 50-284/2018-201

The primary focus of this routine, announced inspection included onsite review of selected aspects of Idaho State University (the licensee's) Class II research reactor safety program including: (1) organization and staffing; (2) procedures; (3) health physics; (4) design changes; (5) committees, audits, and reviews; and (6) transportation of radioactive materials since the last U.S. Nuclear Regulatory Commission (NRC) inspection of these areas. The licensee's programs were acceptably directed toward the protection of public health and safety and in compliance with NRC requirements.

Organization and Staffing

- The licensee's organization structure and staffing were in compliance with requirements specified in the technical specifications (TSs).

Procedures

- Facility procedural review, revision, control, and implementation satisfied TS requirements.

Health Physics

- Surveys were being completed and documented acceptably to permit evaluation of the radiation hazards present.
- Postings met regulatory requirements.
- Personnel dosimetry was being worn as required, and doses were well within the licensee's procedural action levels and NRC regulatory limit.
- Radiation monitoring equipment was being maintained and calibrated, as required.
- The Radiation Protection and as low as reasonably achievable (ALARA) programs satisfied regulatory requirements.
- Training was being provided to staff members in the area of radiation protection in accordance with regulatory requirements.
- Effluent monitoring satisfied license and regulatory requirements and releases were within the specified regulatory and TS limits.
- Releases were within the specified regulatory and TS limits.

Design Changes

- The design change program developed by the licensee appeared to in the final stages of review and was to be presented to the Reactor Safety Committee (RSC) for review and approval as required.

Committees, Audits and Reviews

- The RSC was meeting at least annually as required and completing the review and audit program acceptably.

Transportation of Radioactive Materials

- No radioactive material had been shipped from the reactor facility under the reactor license during the past several years.

REPORT DETAILS

Summary of Plant Status

The Idaho State University (ISU, the licensee) Aerojet General Nucleonics-201 Modified (AGN-201M) Research Reactor Facility, licensed to operate at a maximum steady-state thermal power of 5 watts, continued to be operated in support of operator training, surveillance, experiments, and laboratory work. During the inspection the reactor was operated for training.

1. Organization and Staffing

a. Inspection Scope (Inspection Procedure (IP) 69001, Section 02.01)

The inspector reviewed the following regarding the licensee's organization and staffing to ensure that the requirements of the TS Sections 6.1 and 6.2 were being met:

- Organizational structure and staffing for the facility
- Administrative controls and management responsibilities
- "AGN-201M General Operating Rules," Revision (Rev.) 4, dated September 19, 1994
- ISU AGN-201M Reactor Facility Master Log for the period from July 2016 to the present
- ISU AGN-201M Reactor Facility Annual Operating Report for the 2015 calendar year (CY), dated June 27, 2016
- ISU AGN-201M Reactor Facility Annual Operating Report for the 2016 CY, dated May 22, 2017
- American National Standards Institute/American Nuclear Society (ANSI/ANS)-15.4-1988, "Standards for Selection and Training for Personnel for Research Reactors"

b. Observations and Findings

Through document review and interviews with licensee personnel, the inspector noted that no changes had been made in the organizational structure since the last health physics inspection in July 2016. The inspector reviewed TS Section 6.2 and ANSI/ANS-15.4-1988 and determined that the individuals occupying the various management and administrative positions met the qualifications specified.

Through review of records and logs, and discussions with licensee personnel, the inspector determined that the staffing at the facility was acceptable to support the current workload and ongoing activities. The staffing and organization were consistent with the requirements of the TSs.

It was noted that the person who was the Dean of the College of Engineering (the person designated as Management Level II in Figure 1, Administrative Organization of the ISU AGN-201M Reactor Facility, NRC Facility Operating License Number (No.) R-110 of the TSs) had left the university. A new Dean had

been selected and was scheduled to take over in July 2018. The licensee was preparing a letter of notification for the NRC.

c. Conclusion

Organization and staffing at the facility met the requirements specified in the TSs.

2. Procedures

a. Inspection Scope (IP 69001, Section 02.03)

To ensure that the requirements of TS Section 6.6 was being met, the inspector reviewed the following:

- ISU AGN-201M Operating Procedure (OP) #1, Rev. 4, dated April 30, 2014
- ISU AGN-201M OP #2, Rev. 4, dated April 30, 2014
- "AGN-201M General Operating Rules," Rev. 4, dated September 19, 1994
- ISU AGN-201M Reactor Facility Master Log for the period from July 2016 to the present
- Selected ISU AGN-201M Experimental Procedures, Maintenance Procedures, and Surveillance Procedures

b. Observations and Findings

The licensee's procedures were generally found to be acceptable for current facility operations and the current staffing level. The inspector noted that the licensee was developing their first administrative procedure. It will provide detailed guidance on the preparation of Title 10 of the *Code of Federal Regulations* (10 CFR) 50.59 screenings and evaluations for facility changes. After final review and concurrence by an outside expert, it will be presented to the RSC for review and approval. Additionally, updates to various surveillance procedures have been drafted and will be presented to the RSC for review and approval once the 10 CFR 50.59 administrative procedure is finalized.

The inspector observed the startup and operation of the reactor during the inspection. The proper forms were filled out and procedural steps followed for the startup and operation of the reactor. Procedural adherence appeared to be adequate.

c. Conclusion

Procedural review, revision, control, and implementation satisfied TS requirements.

3. Health Physics

a. Inspection Scope (IP 69001, Section 02.07)

To ensure the requirements of 10 CFR Parts 19 and 20, and TS Sections 3.4, 4.4, 5.1, and 6.9 were being met, the inspector reviewed selected aspects of the following:

- Radiological signs and postings in and around the reactor facility
- Reactor facility personnel dosimetry records for the past two years
- Radiation Safety Officer Annual Reports for the past 2 years
- "Direct Reading Dosimetry Calibration," forms completed by Environmental Health and Safety (EH&S) staff members
- Copy of the most recent "Reactor Full Power Survey," completed June 2, 2017, by ISU EH&S Department technicians
- ISU AGN-201M Surveillance Procedure #4, "Shield Tank Water Level Interlock Calibration," dated December 13, 1988, which documented that the licensee checked the shield tank water level
- "ISU Radiation Safety Policy Manual," Rev. 11, dated September 2014
- "Radiation Safety Training Refresher Training Study Guide," Rev. 08/07 and associated "Refresher Training Test"
- Records documenting the maintenance and calibration of radiation monitoring equipment for the past 2 years
- ISU AGN-201M Reactor Facility Master Log for the period from July 2016 to the present
- ISU AGN-201M OP #1, Rev. 4, dated April 30, 2014, containing instructions for operators including checking shielding and establishing proper radiation barriers required for operations
- ISU AGN-201M Reactor Operations Log (ROL), Form ROL-101, Rev. 5, dated November 3, 2015, for 2017 and to date in 2018 (which consisted of sets of 3 pages indicating operator completion of daily console checkouts, surveys, prestart and rod drop test data, initial criticality calculations, planned power levels, and also documenting reactor shutdowns) and documenting the completion of radiation surveys prior to each reactor startup
- ISU AGN-201M Reactor Facility Annual Operating Reports for the past 2 years
- "RPR 50C Radiation Laboratory Evaluation Checklist," forms completed by ISU EH&S technicians
- "Radlab Contamination and Radiation Survey-RPR 11," survey maps completed by ISU EH&S technicians documenting contamination and radiation surveys of the reactor and associated labs for the past 2 years
- "Radiation Procedures Manual," containing procedures used by the ISU EH&S Department
- ISU Radiation Safety Procedure "Dosimetry," No. TSO-08-02-REV 3, approval dated April 19, 2011
- ISU Radiation Safety Procedure "Radionuclide Laboratory Safety," No. TSO-08-07-REV 1, effective date September 1, 2008
- ISU Radiation Safety Procedure "Calibrations," No. TSO-08-12-REV 1, approval dated May 19, 2009

b. Observations and Findings

(1) Surveys

The inspector reviewed semiannual radiation and contamination surveys of licensee controlled areas within the facility for the past 2 years, which were conducted by campus EH&S Department personnel. The inspector also reviewed the records documenting general area radiation surveys of the Reactor Room which were completed by licensee personnel prior to each startup from 2016 to present. The inspector also verified that an annual radiation survey had been performed by EH&S personnel with the reactor at a high power level as required by TS Section 4.4. The results of all the surveys reviewed had been documented and evaluated, as required, and corrective actions were taken when readings or results exceeded set action levels.

The inspector reviewed the results of the actions taken by the licensee to check the integrity of the shielding and shield tank as required by TS Section 3.4. The inspector also verified that the licensee inspected the shield tank prior to each reactor operation and inspected/verified the water level in the tank annually.

During the inspection, the inspector observed as a senior reactor operator initiated a reactor startup. ISU AGN-201M OP #1 was used and closely followed. Appropriate checks and surveys were performed including a general area radiation survey. The inspector also conducted a radiation survey of the Reactor Room during the startup. The readings observed by the inspector during this survey were compared with those recorded by the licensee. No anomalies were noted.

(2) Postings and Notices

During tours of the facility and during reactor operation, the inspector observed that caution signs and postings in place and controls established for the controlled areas were acceptable for the hazards involving radiation, high radiation, and contamination, and were posted as required by 10 CFR Part 20. Through observations and interviews with licensee staff, the inspector confirmed that personnel complied with the signs, postings, and controls. The facility's radioactive material storage areas were noted to be properly posted. No unmarked radioactive material was detected in the facility.

Copies of notices to workers were posted in various areas in the facility. Radiological signs were typically posted at the entrances to controlled areas. Other postings also characterized the industrial hygiene hazards that were present in the areas as well. During facility tours, the inspector also noted that the copies of NRC Form 3, "Notice to Employees," which were posted at the facility as required by 10 CFR 19.11, were the correct, current version. The forms were posted on the Bulletin Board by the main entrance to the reactor area, as well as at the entrances to laboratories in

the facility. Notices, caution signs, postings, and controls for radiation areas were as required in 10 CFR Parts 19 and 20.

(3) Dosimetry

The inspector determined that the licensee used optically-stimulated luminescent dosimeters (OSLs) for whole body monitoring of beta and gamma radiation exposure with an additional component to measure neutron radiation. The licensee also used thermoluminescent dosimeter (TLD) finger rings for monitoring beta and gamma radiation exposure of the extremities. The dosimetry was supplied and processed by a National Voluntary Laboratory Accreditation Program accredited vendor. Through direct observation the inspector determined that dosimetry was acceptably used by facility personnel and was in accordance with university radiation protection requirements. Examination of the OSL and TLD results indicating radiological exposures at the facility for the past 3 years showed that all occupational doses were well within 10 CFR Part 20 limitations.

(4) Radiation Monitoring Equipment Use and Calibration

The use and calibration of radiation monitoring equipment was reviewed by the inspector. Portable survey meters, friskers, and fixed radiation monitors, as well as the air sampler, were calibrated semiannually by EH&S staff personnel. Neutron survey instruments were routinely sent offsite for calibration. Occasionally some of the other instruments were also sent offsite to a vendor for calibration.

The inspector reviewed calibration records maintained by EH&S and licensee personnel. Through this review the inspector determined that records were being maintained as required and that calibration frequencies met the requirements established in the applicable EH&S procedures. Through observations of activities at the facility, the inspector determined that the monitoring equipment was being used and maintained acceptably. EH&S personnel routinely checked the instruments in use at the facility and removed those that were due for calibration or in need of repair to preclude inadvertent use. No uncalibrated instruments were noted at the facility.

(5) Radiation Protection Program and ALARA Policy

The licensee's Radiation Protection Program was established in various ISU EH&S documents including: (1) the Radiation Procedures Manual and the associated procedures, and (2) "ISU Radiation Safety Policy Manual," Rev. 11, dated September 2014. The program indicated that all personnel who worked in a radiation area or who worked with radioactive material were required to receive training in radiation protection policies, principles, procedures, and requirements prior to starting work. The inspector also confirmed that the facility radiation protection program was being reviewed annually, as required.

The ALARA Policy was also outlined and established in the manuals and procedures mentioned above. The ALARA program provided appropriate guidance for keeping doses ALARA and was consistent with the guidance in 10 CFR Part 20.

(6) Radiation Worker Training

All university students and employees who might receive a dose greater than ten percent of the occupational dose limits, including licensee staff, were required to receive training in radiation protection. This was accomplished by staff members completing an "online" course, entitled "Radiation Introduction Training," and then taking a quiz on the material covered. Those who successfully completed the course were given a certificate by electronic mail. Completion of this training by facility personnel was verified by EH&S personnel, as well as by the Reactor Administrator and/or the Reactor Supervisor. Upon completion of the course, reactor staff members were issued a dosimeter and allowed to work under the direction of a Responsible User.

The inspector reviewed documentation of the training provided to selected licensee staff members, including the certificates of completion. The documents indicated that all current staff members had received the initial training as required. In addition, it was noted that staff members were also required to take annual refresher training. This was done by studying the "Radiation Safety Training Refresher Training Study Guide," Rev. 08/07 and taking the associated test.

The inspector determined that the personnel training program satisfied requirements in 10 CFR 19.12. The training materials appeared to be beneficial in helping all personnel understand the various concepts of radiation protection. The content and periodicity of training were acceptable.

(7) Environmental Monitoring and Effluents

The inspector reviewed the area radiation monitor (ARM) calibration records. The ARMs at the facility had been calibrated semiannually by EH&S staff in accordance with procedures. Corrective actions, including recalibration, were taken if problems were noted.

The inspector noted that airborne concentrations of gaseous releases were calculated by the licensee. These calculations were based on the power level at which the reactor was operated and the duration of the operation. The calculations showed that gaseous releases were well within the concentrations stipulated in 10 CFR Part 20, Appendix B, Table 2. The results were acceptably documented in the facility annual reports, as required. The inspector noted that the calculated dose rate to the public, as a result of the gaseous releases, would be substantially below the dose constraint of 10 millirem per year in 10 CFR 20.1101(d).

The inspector verified that there had been no radioactive liquid releases from the facility to the sanitary sewer within the past 2 years. It was also noted that no solid waste had been transferred from the facility to the campus EH&S during the past 2 years.

On-site and off-site gamma radiation monitoring was completed using environmental TLDs in accordance with the applicable university procedures. The data, which was reviewed by both facility and EH&S staff members, indicated that there were no unusual dose rates in the areas surrounding the facility and that there were no measurable doses above any regulatory limits. These results were also acceptably reported in the ISU AGN-201M Reactor Facility Annual Operating Reports. Through observation of the facility, the inspector did not identify any new potential release paths.

(8) Facility Tours

The inspector toured the Control Room, Reactor Room, and selected support laboratories and offices. Control of radioactive material and control of access to radiation and high radiation areas were acceptable. As noted earlier, the postings and signs for these areas were appropriate.

c. Conclusion

Based on the observations made and the records reviewed, it was determined that the Radiation Protection Program being implemented by the licensee satisfied regulatory requirements because: (1) surveys were being completed and documented acceptably; (2) postings met regulatory requirements; (3) personnel dosimetry was being worn as required and doses were well within the NRC's regulatory limits; (4) radiation monitoring equipment was being maintained and calibrated as required; (5) training was being conducted as required; and, (6) calculations of effluents released from the facility satisfied license and regulatory requirements and releases were well within the specified regulatory limits.

4. Design Changes

a. Inspection Scope (IP 69001, Section 02.08)

To ensure that the requirements of TS Sections 6.4.2 and 6.5 were being met, the inspector reviewed the following:

- RSC meeting minutes for meetings held on April 9, 2015, May 25, 2016, and March 29, 2017
- ISU AGN-201M Reactor Facility Master Log for the period from July 2016 to the present
- ISU AGN-201M Reactor Facility Annual Operating Reports for the past 2 years

b. Observations and Findings

The licensee had not forwarded any changes that had been developed, including changes made to procedures, to the RSC since the last inspection. As noted above, the licensee had updated some procedures and, once the 10 CFR 50.59 administrative procedure was completed, will perform a 10 CFR 50.59 review for each and submit them to the RSC for review and approval.

The screening and administrative process that the licensee had developed to review and approve changes appeared to be in accordance with 10 CFR 50.59 guidance.

c. Conclusion

The design change program developed by the licensee appeared to in the final stages of review and was to be presented to the RSC for review and approval as required.

5. Committees, Audits and Reviews

a. Inspection Scope (IP 69001, Section 02.09)

To ensure that the requirements of TS Section 6.4 were being met, the inspector reviewed the following:

- Completed audits and reviews documented in RSC meeting minutes
- RSC meeting minutes for meetings held on April 9, 2015, May 25, 2016, and March 29, 2017
- ISU AGN-201M Reactor Facility Annual Operating Reports for the past 2 years

b. Observations and Findings

The inspector reviewed the RSC meeting minutes for the past 3 years. The minutes showed the committee met at least once per calendar year and that a quorum was present, as required by TSs. The topics considered during the meetings were appropriate and as required by TS Section 6.4.

The inspector noted that members of the safety committee had completed the audits required by TSs at the required periodicity. The inspector noted that the audit findings appeared to be acceptable and that the licensee generally responded and took corrective actions as needed.

During the inspection the inspector was informed that the person who had served as Chair of the RSC for several years had stepped down from that position. Another person was being considered for the position but had not been formally nominated.

c. Conclusion

The RSC was meeting at least annually as required and completing the review and audit program acceptably.

6. Transportation

a. Inspection Scope (IP 86740)

To ensure compliance with NRC regulatory and licensee procedural requirements for shipping or transferring licensed material were being met, the inspector reviewed the following:

- Shipper Certification
- ISU AGN-201M Reactor Facility Master Log for the period from July 2016 to the present
- ISU AGN-201M Reactor Facility Annual Operating Reports for the past 2 years

b. Observations and Findings

Through records review and discussions with licensee personnel, the inspector verified that the licensee has not shipped any radioactive material from the facility under the reactor license in recent years. It was noted that radioactive material produced in the reactor was either transferred to the campus broadscope license and shipped under that license, transferred to other authorized users on campus, or maintained at the reactor facility for use in laboratories in accordance with procedure.

The inspector also verified that no reactor staff members were authorized to ship radioactive material. If material needed to be shipped, a qualified EH&S designated shipper would process the shipment. The inspector noted that at least one EH&S technician was a qualified shipper and verified that that individual had been certified within the past 3 years.

c. Conclusion

No radioactive material had been shipped from the reactor facility under the reactor license during the past several years.

7. Follow-up On Previously Identified Items

a. Inspection Scope (IP 92701)

The inspector reviewed the licensee's actions taken in response to previously identified inspector follow-up items (IFIs).

b. Observation and Findings

- (1) IFI 50-284/2016-201-01 – (Open) – Follow-up on the new administrative procedure and the updated surveillance and 10 CFR 50.59 procedures.

In July 2016, the inspector determined that the licensee's procedures were generally found to be acceptable. The inspector noted that one new procedure was being developed. This would be an administrative procedure on creating and updating procedures. Additionally, updates to surveillance procedures and the 10 CFR 50.59 procedure were in draft form and were to be presented to the RSC for review and approval as required by TSs.

A review of facility procedures during this inspection indicated that various surveillance procedures had been revised/updated. It was noted that the administrative procedure on creating and updating procedures was not being pursued. The 10 CFR 50.59 administrative procedure had been developed but was in the final stages of completion by the staff. Because the final updates to the surveillance procedures were dependent upon completion of the 10 CFR 50.59 procedure, no RSC action had been taken. This item will remain open.

- (2) IFI 50-284/2017-201-01 – (Closed) – Follow-up on the licensee's actions to ensure that the Isotope Production and Disposition Log (IPDL) was properly being filled out as required by procedure.

During an inspection in July 2017, a review of the Isotope Production and Disposition Forms (IPDFs) indicated that no material that had been irradiated in the reactor had been transferred to another license for many years. After irradiation, the material was typically analyzed and then placed in a storage vault at the facility. The material was often re-irradiated for other experiments. A review of the IPDL forms indicated that the log was not being completely filled out as required by procedure. Numbers were appropriately being assigned in the IPDL but other pertinent data was not entered. The inspector noted that disposition forms were correctly being filled out for each number assigned but, again, the log forms were not completed.

During this inspection, the inspector again reviewed the IPDL and IPDF forms. The inspector noted that the IPDL (log forms) and the IPDFs (disposition forms) were now being completed as required. This should alleviate any problems or questions about experiments and where the irradiated material was maintained. This issue is considered closed.

c. Conclusion

Two IFIs were reviewed. One issue remains open while the other was closed.

8. Exit Meeting Summary

The inspection scope and results were summarized on June 14, 2018, with licensee representatives. The inspector discussed the findings for each area reviewed. The licensee acknowledged the results of the inspection and did not identify any information as proprietary.

PARTIAL LIST OF PERSONS CONTACTED

Licensee Personnel

M. Beatty	Senior Reactor Operator
M. Daniels	Reactor Supervisor
M. Dunzik-Gougar	Reactor Administrator
J. Kunze	Member, RSC, and Former Reactor Administrator

Other Personnel

R. Brey	Radiation Safety Officer, EH&S Department, ISU
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INSPECTION PROCEDURES USED

IP 69001	Class II Research and Test Reactors
IP 86740	Inspection of Transportation Activities

ITEMS OPENED, CLOSED, AND DISCUSSED

OPENED:

None

DISCUSSED

IFI 50-284/2016-201-01	Follow-up on the new administrative procedure and the updated surveillance and 10 CFR 50.59 procedures.
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CLOSED:

IFI 50-284/2017-201-01	Follow-up on the licensee's actions to ensure that the IPDL was properly being filled out as required by procedure
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LIST OF ACRONYMS USED

10 CFR	Title 10 of the <i>Code of Federal Regulations</i>
AGN-201M	Aerojet General Nucleonics-201 Modified
ALARA	As Low As Reasonably Achievable
ANSI/ANS	American National Standards Institute/American Nuclear Society
ARM	Area radiation monitor
CY	Calendar Year
EH&S	Environmental Health and Safety
IFIs	Follow-up Items
IP	Inspection Procedure
IPDF	Isotope Production and Disposition Form
IPDL	Isotope Production and Disposition Log
ISU	Idaho State University
NRC	U.S. Nuclear Regulatory Commission
No.	Number
OP	Operating Procedure
OSL	Optically-stimulated luminescent (dosimeter)
Rev.	Revision
ROL	Reactor Operations Log
RSC	Reactor Safety Committee
TLD	Thermoluminescent dosimeter
TSs	Technical Specifications