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

August 30, 2019

Dr. Mary Lou Dunzik-Gougar
Reactor Administrator
Idaho State University
Professor of Nuclear Engineering
921 S. 8th Avenue, MS 8060
Pocatello, ID 83209-8060

SUBJECT: IDAHO STATE UNIVERSITY – U.S. NUCLEAR REGULATORY COMMISSION INSPECTION REPORT NO. 50-284/2019-202

Dear Dr. Dunzik-Gougar:

From July 29-31, 2019, the U.S. Nuclear Regulatory Commission (NRC) conducted an inspection at the Idaho State University Aerojet General Nucleonics-201M Research Reactor Facility. The enclosed report documents the inspection results, which were discussed on July 31, 2019, with you, Dr. Jay Kunze, Professor Emeritus, and Theodore Pollock, Senior Reactor Operator.

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*, Section 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).

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: See next page

cc:

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Test, Research and Training
Reactor Newsletter
Attention: Ms. Amber Johnson
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4418 Stadium Drive
College Park, MD 20742-2115

SUBJECT: IDAHO STATE UNIVERSITY – U. S. NUCLEAR REGULATORY COMMISSION INSPECTION REPORT NO. 50-284/2019-202, DATE: AUGUST 30, 2019

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

Docket No.	50-284
License No.	R-110
Report No.	50-284/2019-202
Licensee:	Idaho State University
Facility:	Aerojet General Nucleonics-201M Research Reactor Facility
Location:	Pocatello, Idaho
Dates:	July 29-31, 2019
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
Aerojet General Nucleonics-201M Research Reactor Facility
Nuclear Regulatory Commission Inspection Report No. 50-284/2019-202

The primary focus of this routine, announced inspection included onsite review of selected aspects of Idaho State University's (the licensee's) Class II research reactor safety program including: (1) organization and staffing; (2) operations logs and records; (3) procedures; (4) requalification training; (5) surveillance and limiting conditions for operation (LCO); (6) experiments; (7) design changes; (8) committees, audits, and reviews; (9) emergency preparedness; (10) maintenance logs and records; and, (11) fuel handling logs and records, since the last U.S. Nuclear Regulatory Commission (NRC) inspection of these areas. The licensee's program was acceptably directed toward the protection of public health and safety and was generally in compliance with NRC requirements.

Organization and Staffing

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

Operations Logs and Records

- Operational logs and records were consistent with applicable TS and procedural requirements.

- Reactor operations were conducted in accordance with TSs and applicable procedures requirements.

Procedures

- Facility procedural review, revision, control, and implementation satisfied TSs requirement.

Requalification Training

- Various deficiencies were noted in the licensee's operator requalification/training program and medical examinations were not always being completed in the time frame stipulated.

Surveillance and Limiting Conditions for Operation

- The program for tracking and completing surveillance verifications and calibrations and for complying with LCO was being implemented in accordance with TS requirements.

Experiments

- Experiments were being completed in accordance with licensee procedures and the irradiated material produced was controlled appropriately.

Design Changes

- Various changes had been initiated and/or completed at the facility during the past two years but none required a license amendment.

Committees, Audits, and Reviews

- Review and audit functions required by TS Section 6.4 were acceptably completed by the Reactor Safety Committee (RSC) or designated individuals.

- The composition of the committee and the meeting frequency satisfied requirements stipulated in the TSs.

Emergency Preparedness

- The Emergency Plan (E-Plan) and the associated implementing procedures were being reviewed biennially and updated as needed.

- Emergency response equipment was available and was being maintained and inventoried as required.

- Memoranda of Understanding (MOU) with various support organizations were being maintained and updated as required.

- Training for facility and off-site personnel was being completed as required.

- Emergency drills were being conducted annually as required by the (E-Plan) and critiques were held following the drills.

Maintenance Logs and Records

- Maintenance was being completed in accordance with TSs and procedural requirements.

Fuel Handling

- The licensee performed limited fuel handling operations which included an annual inspection of the safety and control rods.

- These operations were conducted in accordance with procedure.

REPORT DETAILS

Summary of Facility Status

The Idaho State University (ISU) Aerojet General Nucleonics-201M (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 not operated due to on-going control rod testing.

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
- ISU AGN-201M, "General Operating Rules," Revision (Rev.) 4
- ISU AGN-201M Reactor Facility Master Log for the periods from October 2016 to March 2018 and from March 2018 to the present
- ISU AGN-201M Reactor Facility Annual Operating Report for the 2017 calendar year, dated June 29, 2018
- ISU AGN-201M Reactor Facility Annual Operating Report for the 2018 calendar year, dated June 26, 2019
- American National Standards Institute/American Nuclear Society (ANSI/ANS) 15.4-2016, "Selection and Training for Personnel for Research Reactors"

b. Observations and Findings

Through interviews with licensee personnel and document review the inspector noted that no changes had been made in the organization since the last operations inspection in 2017. However, a change in personnel had occurred. It was noted that the individual who had held the position of Reactor Supervisor (RS) had left. No new RS had been appointed to date. In the interim, the Reactor Administrator (RA) was also serving as the RS. The inspector reviewed TS Section 6.2 and ANSI/ANS-15.4-2016 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.

Conclusion

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

2. Operations Logs and Records

a. Inspection Scope (IP 69001, Section 02.02)

The inspector reviewed selected aspects of the following to ensure that the operations program was being implemented as required in TS Sections 2.0, 3.0, and 6.0:

- ISU AGN-201M Procedure, "General Operating Rules," Rev. 4
- ISU AGN-201M Operations Procedures including Operating Procedure-1 (OP-1), "AGN-201 Operating Procedure #1," Rev. 4 and OP-2, "AGN-201 Operating Procedure #2," Rev. 4
- ISU AGN-201M Reactor Facility Master Log for the periods from October 2016 to March 2018 and from March 2018 to the present
- ISU AGN-201M Reactor Operations Log (ROL) [contained in a 3-ring binder] ROL-101 forms, Rev. 5 which included the following information: "Check Out;" "Prestart Data;" "Rod Drop Test Data;" "Initial Criticality at 0.01 Watts (10 mW);" "Planned Power Level Data," and, "Reactor Shutdown"

b. Observations and Findings

Reactor operations were carried out according to written procedures and TS requirements. The inspector verified that reactor operating characteristics and other TSs and procedurally required entries were recorded on the appropriate forms and logs. The inspector was not able to observe a routine reactor startup or operations because of control rod drive testing that was in progress. However, according to the records reviewed, the reactor was operated in accordance with procedure and no problems were noted.

Through a review of the completed ROL forms and console logs, the inspector noted that those individuals required by TSs were present during reactor operations. Information on the operational status of the facility was recorded properly on the logs and/or check-off lists as required by procedure. Scrams were identified in the logs and were reported and resolved as required before the resumption of operations.

c. Conclusion

Operational activities were consistent with applicable TSs and procedural requirements.

3. 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 Procedures OP-1 and OP-2
- ISU AGN-201M Procedure, "General Operating Rules," Rev. 4
- Various ISU AGN-201M ROL-101 forms

- Selected AGN-201M Experiment Plans/Procedures, Maintenance Procedures (MPs), and Surveillance Procedures (SPs)
- ISU Nuclear Engineering Laboratory Administrative Procedure, AP-ISU-NEL-001, "[Title 10 of the *Code of Federal Regulations*] 10 CFR 50.59 Evaluations," Rev. 1

b. Observations and Findings

The licensee's procedures were found to be generally acceptable for current facility operations and the current staffing level. It was noted that OP-1 and the associated ROL-101 forms could be better coordinated for better implementation.

The inspector noted that a new procedure had been developed to indicate how to complete 10 CFR 50.59, "Changes, tests and experiments," reviews and evaluations. Various existing procedures were had been revised, updated, and rewritten as well. The inspector verified that the licensee had submitted the new and revised procedures to the RSC for review and approval as required by TS.

c. Conclusion

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

4. Operator Requalification

a. Inspection Scope (IP 69001, Section 02.04)

To determine that operator requalification activities and training were conducted and that medical examinations were completed as required by the licensee's operator requalification program, TS Section 6.3 and 10 CFR Part 55, "Operators' Licenses," the inspector reviewed:

- Medical examination records for selected operators
- Active license status for selected licensed operators
- Written examinations given annually to operators for 2017 through 2019
- Documentation of training lectures, records of reactivity manipulations, console evaluations, and written examinations noted on forms entitled, "Idaho State University Nuclear Engineering Laboratory Requalification Program Progress Checklist"
- ISU AGN-201M Reactor Facility Master Log for the periods from October 2016 to March 2018 and from March 2018 to the present
- "Reactor Operator Requalification Program for the Idaho State University Reactor," Rev 2, dated August 17, 1995

b. Observations and Findings

As of the date of the inspection, there were two qualified senior reactor operators (SROs) and five qualified reactor operators (ROs) at the facility. However, that number was expected to change as some operator trainees had recently taken

their NRC licensing examinations. Through a review of the licenses, the inspector verified that the licenses of the qualified operators were current.

With respect to the Operator Requalification Program, because most of the operators who were currently in the program were relatively new, it was not possible to make a positive determination that the program was adequate and being completed as required. Only two individuals in the program had been qualified for more than a year. As a result of a review of the program, various problems and deficiencies were noted.

Even though all of the current ROs had completed the required 4 hours per quarter performing licensed functions, only one had any other of the requirements completed for the first year of the two year requalification cycle. The requirement completed was an annual console evaluation. However, that evaluation was given by an RO not an SRO. Section V.B of the Requalification Program states that, “Console evaluations may be evaluated by any senior reactor operator.”

It was noted that the RA did not have a console evaluation for the first year of the two year requalification cycle. That issue was apparently recognized by facility staff and the RA has been placed in the Reinstatement program. Therefore, the RA was not allowed to operate until she completed the console evaluation and had operated the reactor for six hours under the direction and observation of a qualified SRO.

Both the RA, who was an SRO, and the other SRO at the facility had completed their first year written examination (two exams are required during the two year cycle) but it was given by an RO not by the RS or the RA as required in Section V.A of the Requalification Program which states, “The Reactor Supervisor and the Reactor Administrator shall be responsible to prepare, administer, and grade the written examination.”

Another problem noted was the fact that neither the RA nor the other SRO had a completed medical examination within the two year window as required by TS Section 6.3 which required compliance with ANSI/ANS-15.4-2016. ANSI/ANS-15.4-2016, Section 7.1.2 states, “Medical examinations shall be conducted prior to initial licensing and no less than every 2 years thereafter, with the periodic examination completed no later than the last day of the 12th month of the second year. More frequent examinations may be required if conditions warrant as determined by Level 2 or upon the recommendation of the designated medical examiner.” One of the operator’s previous medical examination was completed March 1, 2017, and the recent medical examination was completed April 29, 2019. The other operator’s medical examination was completed March 8, 2017, and the recent medical completed April 22, 2019.

Because of these problems and deficiencies noted in the Operator Requalification Program, the licensee was informed that the proper and full completion of the program would be considered an Unresolved Item (URI) and would be fully reviewed during a future inspection (URI 50-284/2019-202-01).

c. Conclusion

Various deficiencies were noted in the licensee's operator requalification/training program and medical examinations were not always being completed in the time frame stipulated.

5. Surveillance and Limiting Conditions for Operation

a. Inspection Scope (IP 69001, Section 02.05)

To determine that reactor surveillance activities and LCO checks, calibrations, and verifications were being completed as required by TS Sections 3.0 and 4.0, the inspector reviewed:

- ISU AGN-201M Operating Procedures OP-1 and OP-2
- Various ISU AGN-201M ROL-101 forms
- Selected ISU AGN-201M SPs including SP-1 through SP-6 for calibrations and LCO verifications
- ISU AGN-201M Reactor Facility Master Log for the periods from October 2016 to March 2018 and from March 2018 to the present

b. Observations and Findings

The inspector determined that selected daily, annual, biennial, and other periodic checks, tests, and/or calibrations for TSs-required surveillance and LCO activities and verifications were completed as stipulated in TSs. Surveillance and LCO verifications reviewed by the inspector were completed on schedule and in accordance with the applicable procedures although some annual surveillances were still pending. The licensee was aware of the situation and planned to complete them once the control rods were re-installed in the reactor. All the recorded results were within the TSs and procedurally prescribed parameters. The records and logs reviewed appeared to be complete and were being maintained as required.

c. Conclusion

The program for surveillance and LCO verifications was being completed in accordance with the TS requirements in Sections 3.0 and 4.0

6. Experiments

a. Inspection Scope (IP 69001, Section 02.06)

To ensure that the requirements of TS Section 6.7 were being met, the inspector reviewed the following:

- ISU AGN-201M Operating Procedures OP-1 and OP-2
- Various ISU AGN-201M ROL-101 forms
- Approved Experiment Plans (EPs) including EP-1 through EP-22
- ISU AGN-201M Reactor, "Isotope Production and Disposition Log"
- ISU AGN-201M Reactor, "Isotope Production and Disposition Form," Rev. 1

b. Observations and Findings

There were 21 experiments that had been approved for use at the facility. (It was noted that there was no experiment numbered “21”.) However, typically only about 10 of those were actually used. The experiments were generally conducted for classwork and training. During the inspection, the inspector noted that one new experiment had been proposed since the last inspection. The inspector verified that a 10 CFR 50.59 review had been completed for the new experiment. Also, the RSC reviewed the newly proposed experiment and provided suggestions for improvements. Following the revisions, the RSC approved the experiment.

The inspector reviewed the other EPs and found no issues. The operations logs appropriately recorded which experiments were being performed. The irradiated material produced was properly controlled and maintained.

A review of the Isotope Production and Disposition Forms 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 reirradiated for other experiments. A review of the Isotope Production and Disposition Log forms indicated that the Log was being filled out as required by procedure. No substantive problems were noted.

c. Conclusion

Experiments were being completed in accordance with licensee procedures and the irradiated material produced was controlled appropriately.

7. Design Change Functions

a. Inspection Scope (IP 69001, Section 02.08)

In order to verify whether modifications to the facility, procedures, and experiments were consistent with 10 CFR 50.59 and TS Section 6.5, the inspector reviewed:

- RSC meeting minutes for 2017, 2018, and 2019
- Reviews and Audits completed by the RSC or an RSC designee for 2017, 2018, and to date in 2019
- 10 CFR 50.59 Review and Evaluation entitled, ISU-50.59-2018-2, “Reactor Control Console Replacement,” and reviewed by the RSC on February 26, 2019
- The two most recent ISU AGN-201M Reactor Annual Operating Reports

b. Observations and Findings

Various facility changes had been made or initiated since the last inspection. A review of the proposals indicated that none had risen to the level requiring submission to the NRC for approval. It was noted that the licensee continued to work on their Reactor Control Console replacement project. A 10 CFR 50.59

review and evaluation had been performed which indicted that no license amendment would be needed prior to implementation.

c. Conclusion

Various changes had been initiated and/or completed at the facility during the past two years but none required a license amendment.

8. Committees, Audits, and Reviews

a. Inspection Scope (IP 69001, Section 02.09)

In order to verify that the licensee had conducted reviews and audits as required by TS Section 6.4, the inspector reviewed:

- RSC meeting minutes for 2017, 2018, and 2019
- Reviews and Audits completed by the RSC or an RSC designee for 2017, 2018, and to date in 2019
- The two most recent ISU AGN-201M Reactor Annual Operating Reports

b. Observations and Findings

The inspector reviewed the RSC meeting minutes from March 2017 to the present. These meeting minutes showed that the RSC had met as required by the TSs and had reviewed the types of topics outlined therein. Review of the committee meeting minutes also indicated that the RSC provided guidance and direction for safe reactor operations and ensured suitable use and oversight of the reactor.

The inspector noted that the RSC, or individuals specifically designated by the committee, completed audits of the facility operations, programs, and procedures. Since the last NRC inspection, audits had been completed in those areas outlined in the TSs. The audits were structured so that various aspects of the licensee's operations and the radiation safety program were reviewed at least annually. Most facility documents, including the facility procedures, were reviewed as needed. The Security Plan and the E-Plan, which were to be reviewed biennially, were being reviewed every two years as required. The inspector noted that the reviews and audits were generally thorough and the resulting findings were appropriate. The licensee responded and took corrective actions as needed.

c. Conclusion

Review, audit, and oversight functions required by TS Section 6.4 were acceptably completed by the RSC.

9. Emergency Preparedness

a. Inspection Scope (IP 69001, Section 02.10)

To ensure that the licensee was acceptably implementing the various aspects of

their emergency preparedness program, as stipulated in the E-Plan for ISU dated August 5, 2016, the inspector reviewed selected aspects of:

- E-Plan implementing procedures
- E-Plan audit and audit responses
- Emergency Locker Inventory Sheets
- Documentation of emergency drills and critiques
- Emergency response supplies, equipment, and instrumentation
- Reactor Facility Emergency Notification Roster dated May 7, 2019
- MOU with offsite support agencies including: Portneuf Medical Center dated April 11, 2019, City of Pocatello (for Fire and Police support) dated August 4, 2017, and Idaho State Police dated August 1, 2017

b. Observations and Findings

The current version of the E-Plan approved for use at the facility was Rev. 7, dated August 5, 2016. The plan and implementing/emergency procedures were being audited and reviewed biennially as required. Audits were appropriate and the licensee addressed any problems identified. MOU agreements with off-site response organizations were being maintained and updated as required.

Supplies, instrumentation, and equipment were being maintained and controlled as required in the E-Plan. Annual inspections and inventories of the equipment were being completed as well. The inspector and a licensee representative conducted an inventory of the supplies and survey meters that were staged for use in the Emergency Locker and verified that the stipulated items were present.

Emergency drills had been conducted annually as required by the E-Plan. Summaries of the critiques held following the drills were issued so that any lessons learned during the exercise were recognized and possible solutions to any problems identified could be developed. The results of these critiques were documented and filed. The last drill was held on July 10, 2019. The drill provided a practical, reasonable, and effective test of the knowledge and training of those involved. Participants included reactor staff, City of Pocatello Fire Department personnel, Portneuf Medical Center staff, and ISU Public Safety officers.

Emergency training for the reactor staff and for response organization personnel (including ISU Public Safety staff) was conducted and generally documented as required. This was typically done in conjunction with the annual drill. Through records review and interviews with various personnel, emergency responders were determined to be knowledgeable of the proper actions to take in case of an emergency.

The inspector, accompanied by the RA and an SRO, met with the Trauma and Emergency Medical Services Manager of the Portneuf Medical Center and other staff members at the hospital. The ISU Radiation Safety Officer was also in attendance. Various topics were discussed including training, participation in drills, support provided by the Idaho National Laboratory, and support of the ISU research reactor facility. It appeared that hospital personnel were well trained, properly equipped, and knowledgeable of the actions to take in case of an

emergency at the ISU AGN-201 reactor facility. From the visit, it appeared that there was a good working relationship between reactor staff and hospital personnel.

c. Conclusion

The emergency preparedness program was being carried out in accordance with the E-Plan.

10. Maintenance Logs and Records

a. Inspection Scope (IP 69001, Section 02.11)

To determine that reactor maintenance activities were being completed as required by TS Sections 3.0 and 4.0, the inspector reviewed:

- ISU AGN-201M Operating Procedures OP-1 and OP-2
- Selected maintenance forms, data sheets, and records
- Various ISU AGN-201M ROL-101 forms
- ISU AGN-201M including MP-1, “AGN-201 Rod Maintenance,” and MP-2, “Procedure To Open The AGN-201M Core Tank”
- ISU AGN-201M Reactor Facility Master Log for the periods from October 2016 to March 2018 and from March 2018 to the present

b. Observations and Findings

Logs and associated records indicated that preventive maintenance activities were conducted as scheduled and emergent maintenance was completed as needed. Any problems noted, especially during reactor start-up or normal operation, were addressed in accordance with the applicable facility procedures or equipment manuals. Maintenance activities ensured that equipment remained consistent with the safety analysis report and TS requirements. It was noted that many maintenance activities involved reactor electronics. These issues were noted in the Reactor Facility Master Log. The majority of these problems involved reactor Channel #2 and Channel #3.

c. Conclusion

The maintenance program satisfied TS requirements.

11. Fuel Handling Logs and Records

a. Inspection Scope (IP 69001, Section 02.12)

The inspector reviewed the following to ensure that TS Sections 4.0 and 5.0 and procedural requirements were met:

- AGN-201M Fuel Inventory Sheets for 2017, 2018, and to date in 2019
- ISU AGN-201M MP-1, “AGN-201M Rod Maintenance,” Rev. 6
- ISU AGN-201M Reactor Facility Master Log for the periods from October 2016 to March 2018 and from March 2018 to the present

b. Observations and Findings

The inspector determined that no reactor fuel inspection or movement had been completed in the period since the last inspection and none was required. The control and safety rods, which contain a small amount of fuel, were inspected every year in accordance with licensee procedure.

The licensee also possessed various fuel plate polyethene shavings and turnings, fuel discs, fuel control rod pieces, and pieces of Oregon State University safety rods. The inspector verified that these items were maintained in a secured area. These items were required to be inventoried periodically and the inspector verified that the inventories were being completed as required.

c. Conclusion

The safety and control rods were inspected annually and the inspection was conducted in accordance with licensee procedure.

12. Follow-up On Previously Identified Items

a. Inspection Scope (IP 92701)

The inspector reviewed the licensee's actions taken in response to a previously identified Inspector Follow-Up Item (IFI).

b. Observation and Findings

(1) IFI 50-284/2016-201-01 – (Closed) – 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, at that time, one new procedure was being developed. This would be an administrative procedure on considering changes under the criterion listed in 10 CFR 50.59. Additionally, updates to surveillance procedures 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 the SPs had been revised/updated. These procedures, along with the 10 CFR 50.59 procedure, had been reviewed by the RSC and approved following some revisions. Because of the actions taken by the licensee and the approval of the procedures by the RSC, this issue is considered closed.

(2) IFI 50-284/2016-201-02 – (Closed) – Follow-up on the update to the OP-1 procedure to clarify log references and reactor supervisor signature requirements.

During an inspection in 2016, an inspector determined that the OP-1 procedure referenced logbooks and log forms interchangeably and had some ambiguity as to when the reactor supervisor was required to sign the log forms.

During an inspection in 2017, the inspector reviewed this issue and noted that the OP-1 procedure had been revised to remove the problem with conflicting references and ambiguity as to when the supervisor was required to sign the log forms. The issue was inadvertently identified as remaining open when it was, in fact, closed. This item is considered closed.

11. Exit Meeting Summary

The inspection scope and results were summarized on July 31, 2019, with licensee representatives. The inspector discussed the findings for each area reviewed. The licensee acknowledged the results of the inspection and did not identify as proprietary any of the material provided to or reviewed by the inspector during the inspection.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

M. Dunzik-Gougar	Reactor Administrator and Interim Reactor Supervisor
J. Kunze	Professor Emeritus, Idaho State University and member of the RSC
P. Lamb	Reactor Operator trainee
J. Longley	Radiation Safety Officer, Environmental Health and Safety Office, ISU
A. Nagarajan	Nuclear Engineer and SRO candidate
T. Pollock	Senior Reactor Operator
W. Yockey	Reactor Operator and Training Coordinator

Other Personnel

T. Shi	Clinical Physicist and Radiation Safety Officer, Portneuf Medical Center
G. Vickers	Trauma & EMS Manager, Portneuf Medical Center

INSPECTION PROCEDURES USED

IP 69001	Class II Research and Test Reactors
IP 92701	Follow-up on Previously Identified Issues

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened:

URI 50-284/2019-202-01	Follow-up on the licensee's actions to ensure that all operators engaged in the facility Operator Requalification Program complete all aspects and requirements of the program on a biennial basis as required.

Closed:

IFI 50-284/2016-201-01	Follow-up on the new administrative procedure and the updated surveillance and 10 CFR 50.59 procedures.
IFI 50-284/2016-201-02	Follow-up on the update to the OP-1 procedure to clarify log references and reactor supervisor signature requirements.

LIST OF ACRONYMS USED

10 CFR	Title 10 of the *Code of Federal Regulations*
AGN-201M	Aerojet General Nucleonics-201M
ANSI/ANS	American National Standards Institute/American Nuclear Society
E-Plan	Emergency Plan
EP	Experiment Plan
IFI	Inspector Follow-up Item
IP	Inspection Procedure

ISU	Idaho State University
LCO	Limiting Conditions for Operation
MOU	Memorandum of Understanding
MP	Maintenance Procedure
NRC	Nuclear Regulatory Commission
OP	Operating Procedure
RA	Reactor Administrator
Rev.	Revision
RO	Reactor Operator
ROL	Reactor Operations Log
RS	Reactor Supervisor
SP	Surveillance Procedure
RSC	Reactor Safety Committee
SRO	Senior Reactor Operator
TSs	Technical Specifications