

April 10, 2008

Dr. Raymond Juzaitis
Head of Nuclear Engineering
Texas A&M University
Zachry Bldg. Room 129
College Station, TX 77843-3133

SUBJECT: NRC ROUTINE INSPECTION REPORT NO. 50-059/2008-201

Dear Dr. Juzaitis:

On March 24, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Texas A&M University AGN-201M Research Reactor Facility. The enclosed inspection report documents the inspection results, which were discussed on March 24, 2008, with you and Dr. W. D. Reece, Interim 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 activities, and interviewed personnel. Based on the results of this inspection, no findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC's, "Rules of Practice," 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 Publicly Available Records (PARS) component of NRC's document 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 404-358-6515.

Sincerely,

/RA/

Johnny H. Eads, Branch Chief
Research and Test Reactors Branch B
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Docket No. 50-059
License No. R-23

Enclosure: NRC Inspection Report No. 50-059/2008-201
cc w/encl: Please see next page

Texas A&M University

Docket No. 50-59

cc:

Mayor of the City of College Station
College Station, TX 77843-3575

Governor's Budget and
Planning Office
P.O. Box 13561
Austin, TX 78711

Bureau of Radiation Control
State of Texas
1100 West 49th Street
Austin, TX 78756

Dr. W. D. Reece
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College Station, TX 77843-3575

Test, Research, and Training
Reactor Newsletter
University of Florida
202 Nuclear Sciences Center
Gainesville, FL 32611

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Enclosure: NRC Inspection Report No. 50-059/2008-201

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ACCESSION NO.: ML080980569

TEMPLATE #: NRR-106

OFFICE	PRTB:RI	PRT:LA	PRTB:BC
NAME	CBassett chb	EHylton egh	JEads jhe
DATE	4/7/08	4/9/08	4/10/08

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

Docket No.: 50-059

License No.: R-23

Report No.: 50-059/2008-201

Licensee: Texas A&M University

Facility: AGN-201M Research Reactor

Location: College Station, TX

Dates: March 24, 2008

Inspector: Craig Bassett

Accompanied by: Greg Schoenbeck

Approved by: Johnny H. Eads, Branch Chief
Research and Test Reactors Branch B
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

EXECUTIVE SUMMARY

Texas A&M University
AGN-201M Research Reactor
Report No: 50-059/2008-201

The primary focus of this routine, announced inspection included on-site review of selected aspects of the licensee's Class II research reactor safety program including: organizational structure and staffing; review and audit and design change functions; reactor operations, operator requalification, procedures, experiments, maintenance and surveillance, fuel handling, radiation protection and environmental monitoring; emergency preparedness, and transportation of radioactive material since the last 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 and staffing were in compliance with the requirements specified in the Technical Specifications given the condition of the reactor control console.

Review and Audit and Design Change Functions

- Review and oversight functions required by the Technical Specifications were completed by the Reactor Safety Board but no audits had been conducted in the past several years due to the reactor being maintained in an extended shutdown condition.
- The licensee was committed to following the program outlined in the Technical Specifications which required a 10 CFR 50.59 evaluation and Reactor Safety Board review and approval of any changes made to the facility structures, systems, or components.

Reactor Operations

- The reactor remained in an extended shutdown condition and no reactor operations had been conducted for over nine years.

Operator Licenses, Requalification, and Medical Activities

- No operator requalification was conducted because of the condition of the reactor but the licensee was developing a plan to train new operators so that operations could resume.

Procedures

- Facility operations procedures were being revised to reflect the changes made to the control console.

Fuel Movement

- No fuel handling activities had been conducted recently due to the condition of the reactor console.

Maintenance and Surveillance

- Maintenance and surveillance was not needed or completed because Technical Specification Section 4.0 did not require that those actions be completed during a period when the reactor had not been brought critical or was being maintained in an extended shutdown condition.

Experiments

- The program for conducting and controlling experiments was in place but no experiments had been conducted since the reactor was last operated in August 1999.

Radiation Protection Program

- Surveys were being completed and documented acceptably.
- Postings met the regulatory requirements specified in 10 CFR Parts 19 and 20.
- Personnel dosimetry was being worn as required and doses were well within the licensee's procedural action levels and NRC's regulatory limits.
- Radiation monitoring equipment was being maintained and calibrated as required.
- The Radiation Protection Program being implemented by the licensee satisfied regulatory requirements.
- Effluent monitoring satisfied license and regulatory requirements and there had been no releases of radioactive effluents.

Emergency Preparedness

- Emergency training and requalification were not being completed due to the extended shutdown but annual emergency drills were being completed as required by the Emergency Plan.

Transportation of Radioactive Materials

- The licensee had not shipped any radioactive material from the facility using the reactor license.

REPORT DETAILS

Summary of Plant Status

The licensee's 100 watt Aerojet General Nucleonics-201 Modified (AGN-201M) training reactor continued to be maintained in an extended shutdown condition. The licensee had nearly completed the upgrade to the control system to utilize current digital technology. During the inspection, the reactor was not operated due to the lack of an operable control console and qualified operators. Records showed that the reactor had not been operated since August 25, 1999.

1. Organization and Staffing

a. Inspection Scope (Inspection Procedure [IP] 69001, 69002)

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

- qualification of staff members
- organizational structure and staffing
- administrative controls and management responsibilities

b. Observations and Findings

As noted above, the reactor had not been operated since August 25, 1999. This was due to the licensee's ongoing efforts to complete upgrades to the reactor control console. The inspector determined that the organizational structure at the facility had not changed since the previous NRC inspection in 2006 (NRC Inspection Report 50-059/2006-201). It was noted that the Reactor Administrator and Head of the Department of Nuclear Engineering was relatively new to the job and was committed to restarting the reactor as quickly as possible. The former reactor supervisor (RS), who had been in the position for many years, had left the facility. At the time of this inspection, the RS position was being filled by the Director of the Nuclear Science Center (NSC) and he was filling the position only on an interim basis. The Interim RS was responsible for maintaining the administrative requirements of the facility and for helping to ensure that the restart of the reactor was accomplished as soon as possible. The inspector verified that the Reactor Administrator and RS were qualified to hold those positions.

c. Conclusions

The licensee's organization and staffing were in compliance with the requirements specified in the TS given the condition of the reactor control console.

2. Review and Audit, and Design Change Functions

a. Inspection Scope (IP 69001, 69002)

In order to verify that the licensee had established and conducted reviews and audits as required by TS Section 6.4 and to determine whether modifications to the facility were consistent with 10 CFR 50.59 and TS Section 6.4.2, the inspector reviewed:

- Reactor Safety Board meeting minutes for September 2006 to the present
- Modification Authorization Number (No.) 2008-1, "AGN Reactor Console Instrumentation and Electronics Upgrade," dated January 22, 2008

b. Observations and Findings

(1) Review and Audit Functions

The composition and meeting frequency of the Reactor Safety Board (RSB) satisfied the TS requirements. Due to the size of the AGN-201M reactor, the RSB was responsible for the oversight of both the Texas A&M AGN-201M Research Reactor and the Texas A&M TRIGA Research Reactor (Docket No. 50-128). The meeting minutes indicated that most of the RSB meeting time was spent reviewing the TRIGA reactor activities since upgrades to the AGN were progressing slowly. Typically the subject of the AGN reactor was reviewed by the RSB at least once per year and noted in meeting minutes.

The inspector asked to review the audits that had been conducted by the RSB. The licensee indicated that no audits were conducted due to the reactor being maintained in an extended shutdown condition. The inspector explained that this did not eliminate the need for audits because the TS required that they be performed. The licensee committed to ensuring that the RSB conducted the required audits and documented that information in the RSB meeting minutes.

Subsequent to the inspection, various audits of the AGN-201M Research Reactor were completed by the RSB. These were documented as required and copies were provided to the inspector.

(2) Design Control

The inspector verified that administrative controls existed in the TS that required the appropriate review and approval of all changes prior to implementation. The inspector reviewed the 10 CFR 50.59 evaluation of the reactor control console that had been completed to ensure that the design change was acceptable prior to the restart of the AGN-201M reactor. The evaluation, dated January 22, 2008, had been completed by the licensee and reviewed and approved by the RSB as required. The licensee indicated that this process would be followed for all changes.

c. Conclusions

Review and oversight functions required by the Technical Specifications were completed by the Reactor Safety Board but no audits were conducted due to the

reactor being maintained in an extended shutdown condition. The licensee was committed to following the program outlined in the Technical Specifications which required a 10 CFR 50.59 evaluation and RSB review and approval of any changes made to the facility structures, systems, or components.

3. Reactor Operations and Logs and Records

a. Inspection Scope (IP 69001, 69002)

The inspector reviewed selected portions and/or aspects of:

- Reactor Safety Board meeting minutes for September 2006 to the present
- Annual Operating Report of the Texas A&M University AGN-201M Training Reactor, for the period June 1, 2005 - May 31, 2006 (not yet submitted to the NRC)
- Annual Operating Report of the Texas A&M University AGN-201M Training Reactor, for the period June 1, 2006 - May 31, 2007 (not yet submitted to the NRC)

b. Observations and Findings

As noted previously, the last date of operation of the reactor was August 25, 1999. In order to improve the operation of the reactor, the licensee had completed various upgrades to different components of the reactor control system. Most recently, the licensee was completing the reconfiguration of the control console to have digital outputs for power and period in addition to having analog scrams to conform to the present safety analysis report. The licensee sent a letter to the NRC on June 16, 2003, stating that the reactor would be ready for restart by September 15, 2003. Due to unforeseen complications, the work on the control console upgrade was delayed numerous times since the letter was sent to the NRC. During an NRC inspection in 2006, the licensee committed to sending a letter to the NRC with an updated schedule of control console upgrade milestones.

During this inspection, it was noted that the licensee had not yet finalized a schedule or sent a letter to the NRC concerning the upgrades and the anticipated resumption of reactor operations. Subsequently, the licensee developed a "Texas A&M University (TAMU) AGN-201M Reactor Upgrade Status Report, Startup Plan, and Tentative Schedule," dated April 2, 2008. Through this report the licensee indicated that they were aggressively planning on a restart date of sometime in the summer or at least by early fall of 2008.

c. Conclusions

There have been no reactor operations conducted since August 1999.

4. Operator Licenses, Requalification, and Medical Activities

a. Inspection Scope (IP 69001, 69002)

The inspector reviewed the following in order to determine whether operator training and requalification activities were conducted as required and that medical requirements

were met as required by the licensee's "Requalification Program for Licensed Reactor Operators and Senior Reactor Operators - Texas A&M University," modified May 20, 1988:

- reactivity manipulations
- operator active license status
- operator physical examination status
- training and written examination results

b. Observations and Findings

All personnel who were qualified to operate the Texas A&M AGN-201M in the past had left the facility. No operator requalification program was being conducted because of the condition of the reactor and console. The Interim RS, as well as the Head of the Department of Nuclear Engineering, were aware of this situation and were developing a plan to have selected personnel trained so that they could take the NRC licensing examination. The Interim RS was one of those who was to be qualified to operate the AGN-201M. It was anticipated that this would happen in the summer or early fall of 2008.

c. Conclusions

No operator requalification was conducted because of the condition of the reactor but the licensee was developing a plan to train new operators so that operations could resume.

5. Procedures

a. Inspection Scope (IP 69001, 69002)

To determine whether facility procedures met the requirements outlined in TS Section 6.5, the inspector reviewed:

- selected operating procedures

b. Observations and Findings

The inspector verified that the licensee was in the process of reviewing and revising the operating procedures for the reactor to reflect the procedural changes needed due to the numerous control console changes. The licensee was aware that substantive changes to procedures, checklists, and forms were required to undergo a 50.59 Evaluation. The licensee planned to present the revised procedures to the RSB for review and approval as required by TS.

c. Conclusions

Facility operations procedures were being revised to reflect the changes made to the control console.

6. Fuel Movement

a. Inspection Scope (IP 69001, 69002)

The inspector reviewed the following to verify adherence to fuel handling, positioning, and inspection requirements specified in TS Sections 4.4 and 5.2:

- fuel handling equipment and instructions

b. Observations and Findings

Through records review and interviews with licensee personnel, the inspector determined that the licensee had not conducted any fuel movements in several years. Although the reactor was partially dismantled, the fuel was secure inside the reactor vessel and shielding. The licensee indicated that they would not move fuel prior to having qualified operators to perform the task.

c. Conclusions

No fuel handling activities had been conducted recently due to the condition of the reactor and control console.

7. Maintenance and Surveillance

a. Inspection Scope (IP 69001, 69002)

To determine whether maintenance and surveillance activities were being completed, the inspector reviewed:

- previous operations records
- previous surveillance and maintenance records notebook

b. Observations and Findings

According to TS Section 4.0, "Surveillance Requirements," maintenance and surveillance actions were not required to be performed if, during the specified surveillance period, the reactor had not been brought critical or was maintained in a shutdown condition extending beyond the surveillance period. The inspector noted that the reactor was in an extended shutdown condition and that the licensee had not been conducting any maintenance or surveillance on the reactor for several years. The licensee was aware that the actions specified in TS Section 4 would be required to be completed prior to bringing the reactor back into full operation and an ongoing program conducted thereafter. The licensee was committed to following the maintenance and surveillance program once the reactor was again operational.

c. Conclusions

The program for maintenance and surveillance had been suspended until the reactor was again operational.

8. Experiments

a. Inspection Scope (IP 69001, 69002)

The inspector reviewed the following to verify that experiments would be conducted within approved guidelines specified in TS Sections 3 and 4:

- documentation of experiment review and approval by the RSB
- Listing of Texas A&M Approved Experiments contained in the program document entitled "Reactor Experiments for the Texas A&M University AGN-201M Reactor Facility"

b. Observations and Findings

Various types of experiments had been proposed to be conducted on a routine basis at the facility. The inspector verified that experiments had been reviewed and approved by the RSB as required. The experiments were well-established procedures that have been in place for many years. As noted above, the reactor had not been operational since 1999 and therefore no experiments had been conducted during that period. It was anticipated that, when the reactor was again functioning, the various experiments would again be performed. The inspector reiterated to the licensee that any new experiments proposed in the future would require the completion of a 50.59 Evaluation and potentially the review and approval of the RSB.

c. Conclusions

The program for conducting and controlling experiments was in place but no experiments had been conducted since the reactor was last operated in August 1999.

9. Radiation Protection and Environmental Monitoring

a. Inspection Scope (IP 69001, 69002)

The inspector reviewed the following to verify compliance with 10 CFR Parts 19 and 20:

- Personnel and area dosimetry results for 2004 to present
- Contamination Survey Forms for the AGN Complex, dated from 2006 to present

b. Observations and Findings

(1) Surveys

The inspector reviewed monthly wipe contamination surveys of the AGN-201M reactor facility completed by the Texas A&M Campus Environmental Health and Safety (EH&S) Department Health Physics (HP) personnel. There were no timeliness requirements for the HP personnel to conduct these surveys. The results were documented on the appropriate forms and evaluated as required. No elevated contamination levels were noted during the inspection period.

During the inspection, the inspector conducted an independent radiation survey of the Reactor Room. No readings above those noted by the licensee were detected and no anomalies were noted.

(2) Postings and Notices

The inspector reviewed the postings at the entrances to the facility controlled areas. The postings were acceptable and indicated the radiation hazards present. Other postings also showed the industrial hygiene hazards present in the areas. The facility's radioactive material storage areas were noted to be properly posted. No unmarked radioactive material was detected in the facility. Copies of current notices to workers required by 10 CFR Part 19 were posted on the bulletin board in the hallway leading to the reactor facility.

(3) Dosimetry

The licensee used a National Voluntary Laboratory Accreditation program-accredited vendor, Landauer, to process personnel and area dosimetry. Through direct observation, the inspector determined that dosimetry was acceptably used by facility personnel. For visitors to the facility, no dosimetry was issued for monitoring due to low background readings and no direct exposures to sources.

An examination of the records for the inspection period showed that all exposures were well within NRC limits and within licensee action levels. There were three people at the facility that are being monitored. Monitoring was accomplished by using an optically stimulated luminescence (OSL) dosimeter. All of the personnel associated with the facility received exposures that were less than 20 millirem (mr) per year.

(4) Radiation Monitoring Equipment

The calibration of portable survey meters and friskers was typically completed by an outside contractor. There were no fixed radiation detectors installed at the facility. The calibration stickers of portable survey meters and friskers in use at the facility were reviewed. Calibration frequency met the requirements established in the applicable procedures while records were being maintained as required.

(5) Radiation Protection Program

The licensee's Radiation Protection Program was established in an online document. The program required that all personnel who had unescorted access to work in a radiation area or with radioactive material receive training in radiation protection, policies, procedures, requirements, and facilities prior to entry. The inspector verified that licensee staff had received the required radiation protection ("rad worker") training given by EHSD. In addition, staff members with unescorted access to the AGN facility supervised all new employees or visitors.

The inspector also verified that the Texas A&M radiation protection program was being reviewed annually as required. No issues were identified in the audit of the program.

(6) Facility Tours

The inspector toured the Reactor Room and the accompanying laboratories. Control of radioactive material and control of access to radiation and high radiation areas were acceptable. The postings and signs for these areas were appropriate. The inspector also determined that there were no measurable releases of gaseous or liquid radioactive material from the research reactor facility.

(7) Environmental Monitoring

An OSL dosimeter was placed in the AGN Complex several feet from the reactor facility. A dosimeter was also placed directly outside of the facility in a controlled area. Annual dosimetry records for 2007 showed that there was an exposure of less than 1 rem to the AGN room and less than 200 mr to the room directly outside of the AGN facility. There were no liquid or gaseous effluents discharged from the facility due to the reactor not operating.

c. Conclusions

The radiation protection program was adequate in that: (1) surveys were being completed and documented acceptably, (2) postings met the regulatory requirements specified in 10 CFR Parts 19 and 20, (3) personnel dosimetry was being worn as required and doses were well within the licensee's procedural action levels and NRC's regulatory limits, (4) radiation monitoring equipment was being maintained and calibrated as required, (5) the Radiation Protection Program being implemented by the licensee satisfied regulatory requirements, and (6) effluent monitoring satisfied license and regulatory requirements and no releases had occurred.

10. Emergency Preparedness

a. Inspection Scope (IP 69001, 69002)

The inspector reviewed the following to verify the implementation of the Emergency Plan:

- Emergency Plan for the Texas A&M University AGN-201M Reactor, dated October 1998

b. Observations and Findings

The Emergency Plan (E-Plan) in use at the AGN facility was the same as the version most recently approved by the NRC, dated October 1998. The inspector verified that the facility and emergency equipment was as described in the E-Plan. The implementing procedures appeared to be sufficient to effectively implement the E-Plan.

Emergency training and requalification was not being completed due to the status of the reactor, but annual emergency drills were being completed as required by the E-Plan. The inspector reviewed the critiques of the evacuation drills that had been conducted for the past two years. The drill for 2007 was a practical exercise and basically tested whether students would evacuate the area as required. The 2008 drill was more involved and tested the effectiveness of emergency procedures and training

of support staff. Critiques were written and discussed following the drills to document any problems identified during the exercises as required.

c. Conclusions

Emergency training and requalification was not being completed due to the extended shutdown but annual emergency drills were being completed as required by the Emergency Plan.

11. Transportation

a. Inspection Scope (IP 86740)

The inspector interviewed licensee personnel and reviewed various records to verify compliance with procedural requirements for shipping radioactive material.

b. Observations and Findings

Through records review and discussions with licensee personnel, the inspector determined that the licensee had not shipped any radioactive material from the reactor facility under the auspices of the reactor license. If the licensee needed to ship radioactive material, it would be transferred to the Texas A&M's Broad Scope license and shipped or disposed of under that license.

c. Conclusions

No radioactive material was shipped from the reactor facility under the reactor license.

12. Follow-up on Previous Open Items

a. Inspection Scope (IP 69001)

The inspectors reviewed the actions taken by the licensee following identification of Inspector Follow-up Items during a previous inspection.

b. Observations and Findings

- (1) IFI - 50-059/1998-201-02 - Follow-up on the licensee's evaluation of the need for formal written guidance to ensure that any facility change would be done under 10 CFR 50.59 or license amendment as required by TS.

NRC Inspection Report No. 50-059/98-201, dated May 12, 1998, outlined the situation. During that inspection, the inspector noted that unscheduled maintenance or repairs were informally evaluated to decide that it was not a facility change. The Reactor Supervisor stated that they would evaluate the need for formal written guidance. During the inspection conducted on September 27, 1999, the inspector reviewed the situation and found that the licensee was still reviewing the changes to 10 CFR 50.59 requirements to determine the need for formal written guidance to ensure that any facility change would be done under 50.59 or license amendment as required by TS.

During this inspection, the inspector confirmed that the licensee's TS contained a requirement to have changes reviewed by the RSB with respect to the requirements contained in 10 CFR 50.59. This issue is considered closed.

- (2) IFI - 50-059/2006-201-01 - Follow-up to verify that the licensee sends a letter to the NRC with an updated schedule of control console upgrade milestones.

NRC Inspection Report No. 50-059/2006-201, dated June 29, 2006, indicated that the AGN-201M reactor had been undergoing upgrades to different components of the reactor control system. The last date of operation of the reactor was August 25, 1999. Currently, the licensee is reconfiguring the control console to have digital outputs for power and period in addition to having analog scrams to conform to the present safety analysis report. The licensee sent a letter to the NRC on June 16, 2003, stating that the reactor would be ready for restart by September 15, 2003. Due to unforeseen complications, the work on the control console upgrade has been delayed numerous times since the letter was sent to the NRC. The licensee committed to sending a letter to the NRC with an updated schedule of control console upgrade milestones. This issue was identified as an Inspector Follow-up Item (IFI).

During this inspection, the inspector confirmed that the licensee had not yet finalized a schedule for completing the control console upgrade. The licensee committed to finalizing the schedule and submitting it to the NRC. This was anticipated before June 2008.

Subsequently, the licensee developed a "Texas A&M University (TAMU) AGN-201M Reactor Upgrade Status Report, Startup Plan, and Tentative Schedule," dated April 2, 2008. Through this report the licensee indicated that they were aggressively planning on a restart date of sometime in the summer or at least by early fall of 2008. This item is considered closed.

- (3) URI - 50-059/2006-201-02 - Failure to submit annual operating reports in accordance with TS requirements.

In NRC Inspection Report No. 50-059/2006-201, the inspector noted that the licensee had not submitted the Annual Reports to the NRC for June 1, 2002 - May 31, 2003, for June 1, 2003 - May 31, 2004 and for June 1, 2004 - May 31, 2005. As specified in TS 6.9.1, "Routine annual operating reports shall be submitted no later than ninety (90) days following the end of the operating year." The licensee had stated that, since the reactor was not being utilized, there was no information that could be submitted to the NRC.

During this inspection, the inspector inquired as to the status of the annual reports. As of the date of the inspection, the reports had not been submitted to the NRC. However, subsequent to the inspection the licensee forwarded two annual reports to the NRC. "Annual Operating Report of the Texas A&M University AGN-201M Training Reactor, NRC License R-23, June 1, 2005 - May 31, 2006" and "Annual Operating Report of the Texas A&M University AGN-201M Training Reactor, NRC License R-23, June 1, 2006 - May 31, 2007," were submitted on April 3, 2008. This item is considered closed.

- (4) IFI - 50-059/2006-201-03 - Follow-up to verify the licensee sends a plan to the NRC describing how the operator will become proficient in the operation of the AGN.

During the inspection in 2006, the inspector noted that 10 CFR 55.59(a) states, "Requalification requirements. Each licensee shall - (1) Successfully complete a requalification program developed by the facility licensee that has been approved by the Commission. This program shall be conducted for a continuous period not to exceed 24 months in duration. (2) Pass a comprehensive requalification written examination and an annual operating test."

According to 10 CFR 55.59(b), "Additional training, If the requirements of paragraphs (a) (1) and (2) of this section are not met, the Commission may require the licensee to complete additional training and to submit evidence to the Commission of successful completion of this training before returning to licensed duties." Subsequently, the licensee committed to submitting a letter to the NRC summarizing their plans to requalify the only licensed operator at the facility. In this letter, the licensee was to provide a description of how the operator will become proficient in the operation of the AGN-201M reactor. In 2006, the only operator at the facility was not considered to have a valid license due to a lack of participation in the requalification program. This issue was noted as an IFI.

During this inspection, the inspector confirmed that the licensee was developing a plan describing how new operators would be trained and become qualified to operate the AGN-201M. This was still being finalized. This item remains open.

- (5) IFI - 50-059/2006-201-04 - Follow-up to verify the licensee completes the 10 CFR 50.59 review regarding the control console upgrade.

During the inspection in 2006, the inspector noted that the control system for the reactor was at the reactor facility and was connected to the control rods. While testing of the control system was underway, the control rods and their drives were removed from the core, which made the reactor inoperable. The inspector confirmed that the licensee was aware of the need to complete the 10 CFR 50.59 review in order to ensure an acceptable design change prior to the restart of the AGN-201M reactor. This issue was considered an IFI.

During this inspection, the inspector confirmed that the licensee had completed the 10 CFR 50.59 evaluation and review of the control console upgrade. The RSB had also reviewed and approved the 10 CFR 50.59 evaluation as noted above. This item is considered closed.

- (6) VIO - 50-059/2006-201-05 - Failure to conduct audits.

During the inspection in 2006, the inspector indicated that various audits were required to be conducted. It was noted that audits had not been conducted since the reactor was last operable in 1999. The licensee stated that there was very little purpose of conducting an audit of the facility operation conformance to the TSs since there were no licensed activities being conducted at the facility. The licensee was informed that failure to conduct audits of facility operations, emergency preparedness, and security was a violation of TS Section 6.4.3.

During this inspection, the inspector reviewed this issue. As stated in the Notice of Violation (NOV) accompanying NRC Inspection Report No. 50-059/2006-201, which was dated June 29, 2006, "The NRC has concluded that information regarding the reason for violation A (Failure to Conduct Audits), the corrective actions taken and planned to correct the violation and prevent recurrence [are] already adequately addressed on the docket in a letter from you (Texas A&M University) received by the NRC dated May 5, 2006." Further, in a letter from Texas A&M dated August 21, 2006, the licensee submitted a Request for a Notice of Enforcement Discretion (NOED) to suspend the requirements for such audits until such time as the AGN-201M Research Reactor was reassembled and again functional.

The licensee was subsequently informed that an NOED is not applicable to a research and test reactor facility. Audits were still required to be conducted by the facility TS. During this inspection the licensee committed to conducting an audit of the past activities and documenting this in the RSB meeting minutes. Future audits would be conducted as required.

As noted above, subsequent to the inspection, various audits of the AGN-201M Research Reactor were completed by the RSB. These were documented as required and copies were provided to the inspector. This issue is considered closed.

- (7) VIO - 50-059/2006-201-06 - Failure to conduct emergency drills and emergency training.

During the inspection in 2006, the inspector indicated that the licensee was required by the Emergency Plan to conduct annual drills and emergency training. The licensee indicated that they had not held the drills as stipulated. Failure to conduct annual emergency drills and retraining and reorientation of facility emergency response personnel as required by E-Plan Section 10.1 was noted as a violation.

During this inspection, the inspector reviewed this issue and the licensee's responses to the NRC's NOV which accompanied Inspection Report No. 50-059/2006-201. In the 2nd Revision to Reply to Notice of Violation, the licensee committed to conducting an emergency drill no later than December 31, 2006. In addition, following the emergency drill, evacuation drills and associated retraining and re-orientation were to be re-established according to the Texas A&M University AGN-201M Emergency Plan. The results of each drill were to be reported to the RSB at its next regularly-scheduled meeting following the each drill. In a Supplement to the 2nd Revision to Reply to Notice of Violation, the licensee indicated that the drill was to be rescheduled for the week of January 22, 2007. The licensee stated further that the drill was to consist only of an evacuation exercised following an emergency procedure.

The inspector reviewed the results of the planning and execution of this drill. It was noted that the proper individuals were involved in planning the drill and the drill was conducted on April 4, 2007. The results of the drill were reported to the

RSB at its next meeting as required. An evacuation drill was also conducted in 2008 as noted above. This issue is considered closed.

c. Conclusions

Three IFIs, one URI and two VIOs were closed. One IFI remains open and will be reviewed during a subsequent inspection.

13. Exit Interview

The inspection scope and results were summarized on March 24, 2008, with members of licensee management. The inspector described the areas inspected and discussed in detail the inspection findings. No dissenting comments were received from the licensee.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

R. Juzaitis Head, Nuclear Engineering Department and Reactor Administrator
D. Reece Interim Reactor Supervisor

INSPECTION PROCEDURES USED

IP 69001 Class II Research and Test Reactors
IP 69002 Class III Research and Test Reactors
IP86740 Inspection of Transportation Activities

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

50-059/1998-201-02	IFI	Follow-up on the licensee's evaluation of the need for formal written guidance to ensure that any facility change would be done under 10 CFR 50.59 or license amendment as required by TS.
50-059/2006-201-01	IFI	Follow-up to verify that the licensee sends a letter to the NRC with an updated schedule of control console upgrade milestones.
50-059/2006-201-02	URI	Failure to submit annual operating reports in accordance with TS requirements.
50-059/2006-201-04	IFI	Follow-up to verify the licensee completes the 10 CFR 50.59 review regarding the control console upgrade.
50-059/2006-201-05	VIO	Failure to conduct audits.
50-059/2006-201-06	VIO	Failure to conduct emergency drills and emergency training

Discussed

50-059/2006-201-03	IFI	Follow-up to verify the licensee sends a plan to the NRC describing how the operator will become proficient in the operation of the AGN.
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LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
AGN	Aerojet General Nucleonics
CFR	Code of Federal Regulations

E-Plan	Emergency Plan
EHS	Environmental Health and Safety Department
HP	Health Physics
IFI	Inspector Follow-up Item
IP	Inspection Procedure
mr	millirem
NRC	Nuclear Regulatory Commission
OSL	Optically Stimulated Luminescent
RS	Reactor Supervisor
RSB	Reactor Safety Board
SRO	Senior Reactor Operator
TS	Technical Specifications
URI	Unresolved Item
VIO	Violation