

August 17, 2000

Ms. S. Lowenstam  
Vice President and General Counsel  
General Atomics  
P.O. Box 85608  
San Diego, CA 92186-9784

SUBJECT: NRC INSPECTION REPORT NO. 50-163/2000-202

Dear Ms. Lowenstam:

This refers to the routine inspection of your General Atomics TRIGA Reactors Facility on August 1 and 2, 2000. The enclosed report presents the results of that inspection.

Various aspects of your organization and proposed decommissioning activities were reviewed during this inspection. This inspection included interviews with personnel and observation of activities in progress. Based on the results of this inspection, no safety concerns or violations of NRC requirements were identified. No response to this letter is required.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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 (the Public Electronic Reading Room) <http://www.nrc.gov/NRC/ADAMS/index.html>.

Should you have any questions concerning this letter or the enclosed report, please contact Mr. Craig Bassett at 404-562-4712.

Sincerely,

**/RA/Linda Howell FOR**

Ledyard B. Marsh, Chief  
Events Assessment, Generic Communications  
and Non-Power Reactors Branch  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket No.: 50-163  
License No.: R-67

Enclosure: NRC Inspection Report  
No. 50-163/2000-202

cc w/enclosure: See next page

General Atomics

Docket No. 50-163

cc:

Steve Hsu  
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State Department of Health Service  
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**U. S. NUCLEAR REGULATORY COMMISSION**  
**OFFICE OF NUCLEAR REACTOR REGULATION**

Docket No: 50-163

License No: R-67

Report No: 50-163/2000-202

Licensee: General Atomics

Facility: TRIGA Reactors Facility

Location: 3550 General Atomics Court, Building 21  
San Diego, CA

Dates: August 1-2, 2000

Inspector: Craig Bassett

Approved by: Ledyard B. Marsh, Chief  
Events Assessment, Generic Communications  
and Non-Power Reactors Branch  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

## EXECUTIVE SUMMARY

General Atomix  
Report No: 50-163/2000-202

The primary focus of this routine, announced inspection was the on-site review of selected programs of this Class III non-power reactor facility including licensee organization, ongoing decommissioning activities, radiation protection, radioactive waste handling, and security.

### Organization and Staffing

- ! The licensee's organization was in compliance with the requirements specified in the Technical Specifications and the Decommissioning Plan.
- ! The staffing level was acceptable for current activities.

### Decommissioning Project Activities

- ! The licensee was generally following the Decommissioning Plan schedule.
- ! Completion of the decommissioning project is dependent upon removal of all fuel from the site which requires Department of Energy approval.

### Radiation Protection

- ! Postings satisfied regulatory requirements.
- ! Personnel dosimetry was being worn as required and doses were well within the licensee's specified procedural action levels and regulatory limits.
- ! Surveys had been completed and documented acceptably to permit evaluation of the radiation hazards present at the facility.
- ! Radiation worker training was being completed as stipulated by procedure.
- ! Records associated with licensed activities had been maintained as required.
- ! Proper precautions had been implemented for the project, acceptable work practices were being used, and adequate oversight by health physics personnel was being provided.

### Radioactive Material Handling

- ! Radioactive waste was being handled in accordance with applicable procedures and license requirements.

### Physical Security

- ! No deficiencies were identified in the licensee's security program.

## REPORT DETAILS

### Summary of Plant Status

The NRC issued license amendments on August 12, 1999, authorizing the licensee to begin decommissioning the two non-power reactors (NPRs) on site. During this inspection interval, the licensee continued efforts to decommission the reactors as stipulated in the applicable Technical Specifications (TSs) and as outlined in the Decommissioning Plan (DP). Work activities were concentrated in the Mark F portion of the TRIGA Reactors Facility (TRF).

### 1. Organization and Staffing (40755)

#### a. Inspection Scope

The inspector reviewed the following regarding organization and staffing:

- ! the licensee organizational structure as outlined in the TSs
- ! management responsibilities as outlined in the DP
- ! staffing for decommissioning of the TRF
- ! other resources being committed to the project

#### b. Observations and Findings

Through discussions with licensee representatives and contractor personnel, the inspector determined that management responsibilities and the organization at the facility met the requirements specified in the TSs and the DP. The inspector determined that the TRF Decommissioning Project Manager had continued to retain overall responsibility for direction of decommissioning the facility. The site Health Physics Manager and the TRIGA Reactors Safety Committee had advised the TRF Decommissioning Project Manager in matters pertaining to radiological and general safety. The TRF Physicist-in-Charge was responsible for maintaining the facility in a safe and proper condition during the evolution of the project and had provided engineering support for the decommissioning activities.

The inspector also determined that the licensee's current staffing level was adequate to support the activities being conducted at the facility.

#### c. Conclusions

The licensee's organization was in compliance with the applicable requirements specified in the TSs and the DP, and the current staffing level was acceptable for ongoing activities.

### 2. Decommissioning Activities (40755)

#### a. Inspection Scope

In order to verify that activities at the site were proceeding as outlined in the DP, the inspector reviewed:

- ! decommissioning schedule
- ! ongoing activities and plans

b. Observations and Findings

Decommissioning personnel have been following the general schedule for completion of the decommissioning project. The schedule, with a few licensee-approved modifications, is outlined in the DP. The schedule indicates that completion of the decommissioning project involving the TRF is ultimately dependent upon the removal of all fuel from the site. This requires Department of Energy approval and acceptance. The licensee is pursuing all options available in this matter.

c. Conclusions

The licensee was generally following the schedule outlined in the DP, which indicates that completion of the project is dependent upon removal of all the fuel from the General Atomics site.

**3. Radiation Protection Program (40755)**

a. Inspection Scope

The inspector reviewed the following in order to verify that the radiation protection program was being implemented at the site as outlined in the DP:

- ! documentation of the radiation protection program
- ! radiological signs and postings
- ! routine surveys, monitoring, and dosimetry records
- ! training of personnel
- ! work in progress involving the Mark F reactor

b. Observations and Findings

Copies of NRC Form 3, "Notice to Employees," were posted in accordance with 10 CFR 19.11. Caution signs, postings, and control of radiation areas were as required by 10 CFR Part 20, Subpart J. The inspector noted licensee and contractor personnel were observing the indicated precautions for access to radiation areas.

Use of dosimeters and exit frisking practices were in accordance with radiation protection requirements. The licensee is using a National Voluntary Laboratory Accreditation Program (NVLAP)-accredited vendor to process dosimetry. Personnel exposure records indicated that occupational doses and doses to the public were within 10 CFR Part 20 limits. Training records and observations of workers performing various jobs indicated personnel had been adequately trained in radiation protection practices.

Radiation monitoring and survey activities had been implemented as required. Surveys had been completed and documented and were adequate to permit evaluation of the radiation hazards that existed at the facility.

The work authorization (WA) and associated amendments and records pertaining to decommissioning had been maintained as required by procedure. The WA had been revised to reflect changes to decommissioning requirements and revisions to the TRF procedures. The WA and applicable procedures appeared to be acceptable.

Observation of ongoing work indicated that proper precautions were being implemented as required by the appropriate radiation work permits (RWPs). The individuals involved in the project had used acceptable work practices for contamination control and maintaining exposures ALARA. Adequate oversight of the job was being provided by health physics personnel assigned to the TRF decommissioning.

c. Conclusions

Postings satisfy regulatory requirements. Personnel dosimetry was being worn as required, and doses were well within the licensee's specified procedural action levels and regulatory limits. Radiation worker training had been completed as stipulated by licensee procedure. Surveys were completed and documented acceptably. Procedures and authorizations governing the work had been maintained as required. Proper precautions were being implemented for the project, acceptable work practices had been used, and adequate oversight by health physics personnel was being provided.

**4. Radioactive Material Handling (40755)**

a. Inspection Scope

In order to verify that radioactive material was being handled and prepared for disposal as required, the inspector reviewed:

- ! radioactive material handling procedures
- ! radioactive material transfer records

b. Observations and Findings

Observation of work in progress and a review of records revealed that radioactive waste material designated for disposal was being handled and processed in accordance with applicable licensee procedures and federal regulations. Radioactive waste was ultimately shipped to the Nevada Test Site for disposal.

c. Conclusions

The program for handling radioactive material was consistent with license requirements.

**5. Physical Security (40755)**

a. Inspection Scope

The inspector reviewed selected aspects of:

- ! the physical security plan (the current version and the proposed revision)
- ! security systems, equipment, and instrumentation
- ! implementation of the physical security plan



b. Observations and Findings

The physical security plan (PSP) was recently revised by the licensee and submitted to the NRC. Final review and approval of this revision will be completed by NRC. Physical protection systems (barriers and alarms), equipment and instrumentation had been tested as required by the PSP. Access control was being maintained as required. Implementing procedures were consistent with the PSP.

c. Conclusions

No deficiencies were identified in the licensee's security program.

**6. Exit Meeting Summary**

The inspection scope and results were summarized on August 2, 2000, with licensee representatives. The inspector discussed the findings for the areas reviewed. Although proprietary documents and materials were reviewed during the inspection, proprietary information is not included in this report. No dissenting comments were received from the licensee.

## PARTIAL LIST OF PERSONS CONTACTED

### Licensee Personnel

K. Asmussen, Director, Licensing, Safety, and Nuclear Compliance  
G. Bramblett, Manager, Decommissioning Project  
P. Butler, Health Physics Technician  
L. Gonzales, Manager, Health Physics  
J. Greenwood, Physicist-in-Charge and Manager, TRIGA Reactors Facility  
B. Hunter, Health Physics Technician  
W. LaBonte, Health Physics Supervisor  
R. Tomlin, Senior Staff Technician

### Contractor Personnel

S. Smart, Laborer, Ries Construction

## INSPECTION PROCEDURE USED

IP 40755: Class III Non-Power Reactors

## ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

## LIST OF ACRONYMS USED

ALARA	As Low As Reasonably Achievable
CFR	Code of Federal Regulations
DP	Decommissioning Plan
NPR	Non-Power Reactor
NRC	Nuclear Regulatory Commission
NVLAP	National Voluntary Laboratory Accreditation Program
PDR	Public Document Room
PSP	Physical Security Plan
RWP	Radiation Work Permits
TRF	TRIGA Reactors Facility
TS	Technical Specification
WA	Work Authorization