TRIGA® Mark F Reactor

ANNUAL REPORT

CALENDAR YEAR 2006

prepared to satisfy the requirements of
U.S. Nuclear Regulatory Commission
Facility License R-67
Docket No. 50-163

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TRIGA REACTORS FACILITY
TRIGA Mark F Reactor
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Introduction

This report documents operation of the General Atomics (GA) TRIGA® Mark F Nonpower Reactor for the period January 1, 2006 through December 31, 2006. The TRIGA Mark F Reactor, possessed by GA at its San Diego, California facilities, was not operated for the duration of the reporting period. The Reactor is possessed by GA under License No. R-67 (Amendment No. 45) granted by the U.S. Nuclear Regulatory Commission (Docket No. 50-163).

This report is being prepared and submitted to satisfy the requirements of Section 8.6(d) of the R-67 Technical Specifications, as amended. This report is presented in six parts, consistent with the information required by the applicable Technical Specifications.

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1. Summary of Facility Activities

1.1 Decommissioning Activities

During Calendar Year (CY) 2006, the TRIGA Mark F has been in Decommissioning status. The following represents a summary of activities during this reporting period:

1.2 Facility Status

- The Senior Reactor Operators (SROs) have all completed the requirements necessary to keep their licenses current. The required biennial operator requalification written examination was successfully taken by the three (3) operators on June 27, 2006.

- All TRIGA Mark F fuel remains in the Fuel Storage Canal.

- New security system hardware (for Fire, Criticality and Intrusion) was installed during this reporting period.

- All GA personnel having access to Safeguards Information were fingerprinted with copies sent to the USNRC and had criminal history records checked.

- On May 16, 2006, representatives of the San Diego Police Department met on site to refamiliarize themselves with the Mark F Facility.

- On July 10 - 12, 2006, Craig Bassett of the USNRC audited the TRIGA Mark F Reactor Facility pertaining to GA's compliance with compensatory security measures. No problems were noted during the exit meeting on July 12, 2006. Inspection reports (Nos. 50-163/2006-201 and 50-089/2006-201) were submitted by the USNRC on August 17, 2006.

- The Criticality and Radiation Safeguards Committee (CRSC) completed its annual inspection on December 12, 2006. No problems were noted.

1.3 Decommissioning Schedule

All decommissioning for the Mark F reactor has been completed up to the point where the fuel needs to be shipped. Any further decommissioning tasks may jeopardize the fuel and will only be conducted after the fuel is shipped.

1.4 Radioactive Material Shipments

No radioactive material was shipped during this reporting period.

2. Maintenance Operations

All maintenance activities, performed during the reporting period, generally fall into three categories: (i) routine preventive maintenance, (ii) routine calibration activities, and (iii) activities associated with replacement of older components and systems due to age. All maintenance activities are recorded in the TRIGA Reactors Decommissioning Logbook. Facility Maintenance Checklists are completed on a regular schedule, at weekly, quarterly, and annual frequencies. All maintenance operations performed on the TRIGA Mark F were minor in nature. There were no major maintenance operations performed during the reporting period.

3. 10CFR50.59 Facility Modifications and Special Experiments

There were no applications for Facility Modification under the provisions of 10CFR50.59 submitted for the R-67 facility during the CY2006 reporting period. There were no Special Experiments submitted for the R-67 facility during CY2006.

4. Radioactive Effluents Released to the Environs

During CY2006, 0.00 millicuries of Argon-41 were discharged from the TRIGA Mark F Reactor facility stack to the atmosphere.

5. Environmental Surveys

During CY2006, the Environmental Monitoring Program (EMP) for the TRIGA Reactors Facility remained essentially unchanged from the prior year. The applicable EMP includes the following monitoring equipment and actions:

- Five (5) emergency air samplers, situated on the Facility roof and around the TRIGA Reactor Facility perimeter.

- Ten (10) environmental air samplers, situated adjacent to, and near the GA site perimeter, in accordance with the GA Special Nuclear Material License (SNM-696).

- Daily liquid effluent monitoring from the GA Main Sewerage Outfall Pump House, for gross alpha and beta radioactivity concentrations.

- Annual soil and water sampling at ten (10) stations on the GA site, including stations around the perimeter of the TRIGA Reactors Facility.

- External radiation monitoring of the TRIGA Reactor Facility using five (5) passive area dosimeters, as well as radiation meter surveys conducted periodically.

- A Continuous Air Monitor (CAM), situated in the Mark F Reactor Room (21/107), to continuously sample room air for airborne radioactivity. CAM air filters are collected each week and analyzed for radioactivity.

6. Summary of Radiation Exposures and Radiological Surveys

The following data summarizes measured personnel occupational radiation exposures and radiological surveys of the TRIGA Reactors Facility during CY 2006. Personnel who are listed on the TRIGA Reactors Facility Work Authorization (WA #3316) and specific Radiological Work Permits (RWPs) were monitored for radiation exposure; these individuals included 18 General Atomics Staff and 14 Non-General Atomics Staff employees.

6.1 General Atomics Staff Whole Body Exposures[1]

Number of individuals monitored:	18
High Exposure:	0.000 Rem
Low Exposure:	0.000 Rem
Average Exposure:	0.000 Rem

6.2 Non-General Atomics Staff Whole Body Exposures[2]

Number of individuals monitored:	14
High Exposure:	0.000 Rem
Low Exposure:	0.000 Rem
Average Exposure:	0.000 Rem

6.3 Routine Wipe Surveys of Mark F Reactor Facility

High Wipe:	9.50 dpm/100 cm^2
Low Wipe:	< 1.00 dpm/100 cm^2
Average Wipe:	< 1.00 dpm/100 cm^2

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1 Includes reactor facility staff and facility support staff authorized to work at the TRIGA Reactor Facility. These personnel may also work routinely at other GA radiation facilities; therefore, this dose represents *cumulative* exposure at all GA facilities

2 Includes non-GA personnel who were granted periodic access to the facility for the performance of work. These personnel may also work routinely at other GA radiation facilities; therefore, this dose represents *cumulative* exposure at all GA facilities.

6.4 Routine Radiation Measurements of Mark F Reactor Facility

High Measurement:	18.	mRem/hr @ 1 foot
Low Measurement:	<0.2	mRem/hr @ 1 foot
Average Level:	0.8	mRem/hr @ 1 foot