U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No. 70-734/82-08

Docket No. 70-734 License No. SNM-696 Safeguards Group 1

Licensee: General Atomic Company

P. O. Box 81608

San Diego, California 92138

Facility Name: Torrey Pines Mesa and Sorrento Valley Sites

Inspection at: San Diego, California

Inspection conducted: June 14-17, 1982

Inspectors: B. L. Brock 9/3/82

B. L. Brock, Fuel Facilities Inspector — Date Signed

Date Signed

Date Signed

Approved by: R. D. Thomas 9/3/82

R. D. Thomas, Chief — Date Signed
Materials Radiation Protection Section

for R. D. Thomas 9/3/82

H. E. Book, Chief, Radiological Safety Branch — Date Signed

Summary:

Inspection on June 14-17, 1982 (Report No. 70-734/82-08)

Areas Inspected: Organization, internal review and audits, criticality safety, environmental programs, radiation protection, and radioactive waste management. The inspection involved 60 inspector-hours by one NRC inspector accompanied by an NMSS representative (a third of this effort was expended touring the facility and reviewing license conditions with the licensee).

Results: No items of noncompliance were identified in the areas inspected.

RV Form 219 (2)

DETAILS

1. Persons Contacted

J. W. Parker, Director, Quality Assurance and Compliance Division
*H. N. Wellhouser, Manager, Compliance Administration Department
*W. R. Mowry, Licensing Administrator
*F. O. Bold, Manager, Compliance Control Department
*K. C. Duffy, Manager, Nuclear Material Management
E. L. Spencer, Environmental Specialist
W. H. Morris, Industrial Nuclear Safety Coordinator
R. C. Noren, Manager, Fuel Manufacturing Department
*L. R. Quintana, Senior Health Physicist
J. Keith, Health Physics Monitor
E. I. White, Consultant
D. Hill, Consultant
D. C. Pound, Nuclear Engineer, General Engineering
B. Hipsley, Senior Laboratory Technician

*Denotes those attending the exit interview.

2. Organization

The licensee instituted a reorganization (effective March 1, 1982) which included consolidation of service functions under a Vice President, Administration. The Quality Assurance and Compliance Division under Director J. W. Parker reports to the Vice President of Administration. The organizational chart for the Quality Assurance and Compliance Division includes the Nuclear Safety function filled by D. C. Pound who is assigned to the General Engineering Division which reports to another Vice President. The Director of the Quality Assurance and Compliance Division has indicated that he has been assurred that the Nuclear Safety function will receive appropriate assistance whenever required. The adequacy of this aspect of the reorganization will of necessity be continually reviewed.

The former Nuclear Material Custody and Control Division which included Nuclear Safety, Health Physics and Nuclear Material Control under H. N. Wellhouser has been reorganized as the Compliance Administration Department which along with the Compliance Control and the Quality Assurance Departments report to J. W. Parker, Director, Quality Assurance and Compliance Division. A Security Administration function was added to the Compliance Administration Department. The Health Physics function and Fire Safety functions were transferred to the Compliance Control Department under F. Bold. The Security Control function was also transferred to the Compliance Control Department. The Quality Assurance Department which also reports to J. W. Parker includes the functions of Quality Systems, Projects, Fusion, and Torrey Pines Technology

and are under the management of T. Colandrea. Of particular note is the separation of the Physical Security Division previously under J. Iles (recently retired) into two functions. The administrative function will continue to be the responsibility of E. Quimby now reporting to H. Wellhouser, Manager of Compliance Administration. The operations function of the Physical Security Division remains under the supervision of B. Marshall but is now in the Compliance Control Department and reports to F. Bold.

Additionally, the licensee was successful in adding L. R. Quintana, a qualified senior health physicist, to the staff. The timely addition of the senior health physicist allows a period for familiarization with the specific facility before production with high enrichment uranium resumes in September, 1982.

It is anticipated that some of the health physics technicians will be cross trained as fire control technicians to facilitate their involvement in fire control since they are generally among the first at the scene of a fire because of their necessary presence for monitoring activities when work is in progress.

3. Internal Review and Audits

The licensee's internal audit program is continuing. The effect of the recent reorganization on the internal audit program will be followed closely in subsequent inspections since the reorganization was only recently instituted (March 1, 1982). Five nuclear safety inspections had been conducted in the 3 months since the new organization became effective. The inspections included the Sorrento Valley process area, the Material Control Storage areas, the Triga Fuel Fabrication area, the Nuclear Materials Management storage areas, and the Nuclear Materials processing center. Previous licensee identified items needing corrective action had been completed; however, two new items were noted. One new item involved repackaging and solidification of five barrels of liquid waste that were beginning to deteriorate. The other item involved putting liquid waste into the ponds again (except Pond No. 2 in which the filtration system is installed) because of problems with the new filtration system. The filtration system when fully operational is expected to produce a liquid effluent qualified for disposal to the city sewer system. This approach (filtration) is expected to eliminate the routine use of the evaporation ponds as the principal radioactive liquid waste removal system.

4. Employee Training

A followup check was made to confirm that the employee who had not received training in 10 CFR Part 19 (identified by the licensee) had received the necessary training since our last inspection. The records reflected that the referenced training was given to the employee on March 12, 1982, 20 working days after the inspection.

5. Criticality Safety

During the tour of the Fuel Fabrication Plant (for HTGR fuels) a question arose regarding the adequacy of the control over the low level SNM waste liquid dump station where the low level SNM waste liquid is transferred into a larger non-safe geometry container. The question arose because high level SNM process solutions are handled in the area in containers not distinguishable in size, color or shape from those containing low level SNM waste liquid. The criticality safety analysis of this procedure was requested for review. It was not available because it had been completed many years earlier by the predecessor to the current criticality safety advisor. The inspector recommended that the licensee generate a nuclear criticality safety analysis for this procedure and that he retain all such analyses for procedures still in operation or maintained for future use (the analyses would be useful in accident evaluations). The licensee agreed to consider repeating the analysis. The procedure (last revised in November of 1980) requires measurement, tampersafing and transferring under at least two man rule with a third person required depending on the specific operation. Locked valves provide additional control. The paperwork is double checked before keys are released for unlocking control valves to permit a planned operation. The tampersafing seals provide unique identification in addition to container labels. The procedure requires either EVER-SAFE geometry containers (11 liter bottles, approved 5-inch diameter columns or vessels, and containers of one gallon or less total volume) or restricts the U-235 content of non-safe geometry containers to equal to or less than the EVER-SAFE mass limit of 350 grams U-235 for a container which is isolated or in an approved location. The procedure further requires that every effort should be made to keep the maximum uranium content per 55 gallon drum to less than 50 grams uranium (less than 100 grams uranium for the 500 gallon tank trailers).

6. Environmental Programs

The environmental program was reviewed with the Manager of Compliance Control and his consultant who previously had been a GAC employee with responsibility for the environmental programs. The consultant reviews the monthly reports and makes appropriate recommendations. A recent change involved relocating one sampling location for soil, vegetation and water from private property to public land along the same creek. Additionally, an air monitoring station in the home of a former GAC employee about 25 miles from the plant was deleted. A new air monitoring station was added near a new industrial park which is within 2 miles and just north of the site.

7. Radiation Protection

The licensee's air sampling program involves continuous sampling with measurements made weekly. When alert levels are exceeded the responsible Health Physicist for the affected area is notified. A copy of the

results of the investigation is provided to the Manager of Compliance Control. Additionally, the Fuel Manufacturing Manager receives a quarterly summary of airborne activity in each processing area, as a percent of MPC, for each operating shift (day, swing, and graveyard) averaged separately over the quarter. Operations developing problems are readily identified and a record of past performances is readily available for an evaluation of improvement efforts.

8. Radioactive Waste Management

The licensee expects waste shipments to average about 15,000 cu ft/year. The burial problems resulting from the wearing of holes in the sides of large wooden boxes by protrusions from the contained large items has been adequately corrected by use of internal bracing to reduce the flexing of the large sidewalls during transportation.

The pond dedicated to handling hot cell liquid waste is scheduled for cleanout in mid July 1982 by an outside contractor.

One of the SNM liquid waste ponds had been cleaned and refurbished since the last inspection. The pond is now in use.

9. Management Interview

The scope and the results of this inspection were discussed with licensee's representatives on June 17, 1982. The licensee was advised that no items of noncompliance were identified during this inspection. The licensee was apprised however of our view that it would be prudent to maintain on file the criticality safety analysis made on any system still in use or maintained for future use. The licensee agreed to review this item.

The NMSS representative indicated the discussions of the Draft NRC comments on the General Atomic Company License Renewal application (License No. SNM-696, Docket 70-734) were informative. He indicated that the NRC Comments, in final form, would be sent to GAC within a few weeks. He asked for a more timely response than the November 1982 time frame initially indicated by GAC. GAC indicated several factors influenced the estimated response date but that these would be reviewed bearing in mind the need to expedite the license renewal.