NRC FORM 374

U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. General Atomics	3. License Number SNM-696, Amendment 87
2. P.O. Box 85608 San Diego, California 92186-9784	4. Expiration Date December 31, 1989
	5. Docket No. 70-734 Reference No.

6. Byproduct Source, and/or Special Nuclear Material	7. Chemical and/or Physical Form	8. Maximum amount that Licensee May Possess at Any One Time Under This License
A. Uranium	A. Enriched up to 19.99% U-235	A. 10 kilograms U-235
B. Uranium	B. Enriched 20 to 100% U-235	B. Less than 1000 gm*
C. U-233	C. Any	C. Less than 100 gm U-233*
D. Plutonium	D. Encapsulated and/or sealed sources	D. Less than 100 gm total Pu*
E. Plutonium	E. Bred but unseparated	E. Less than 50 gm total Pu*
F. Plutonium	F. Plated calibration source	F. Less than 5 grams total Pu*
G. Plutonium	G. Solutions, precipitates solids	G. Less than 5 grams and total Pu*

Enclosure 1

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
SNM-696

Docket or Reference Number
70-734

Amendment No. 87

* The sum total quantity of strategic special nuclear material possessed at any one time must be less than 5,000 grams computed by the formula:
Grams = grams U-235 in uranium enriched to 20% or more plus 2.5 (grams U-233 + grams plutonium)

9. Authorized place of use: The licensee's San Diego, California site as specified in the aforesaid application and supplements.

10. This license shall be deemed to contain two sections: Safety Conditions and Safeguards Conditions. These sections are part of the license, and the licensee is subject to compliance with all listed conditions in each section.

FOR THE NUCLEAR REGULATORY COMMISSION

Date: 4/13/07

/RA/
Gary S. Janosko, Deputy Directory
Fuel Facility Licensing Directorate
Division of Fuel Cycle Safety
and Safeguards, NMSS
Washington, DC 20555

(Provided w/Amendment 31)
Enclosures: 1. License Condition for Leak Testing Sealed Plutonium Sources, dtd 4/93

2. License Condition for Plutonium Alpha Sources, dtd 4/93

3. Guidelines for Decontamination of Facilities..., dtd 4/93

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
SNM-696

Docket or Reference Number
70-734

Amendment No. 87

SAFETY CONDITIONS

S-1. Authorized use: For use in accordance with statements, representations, and conditions contained in Part II - "License Specifications" dated July 24, 1981, and supplements dated March 16 and December 24, 1982; February 4, November 14, and November 15, 1983; April 10, April 12, June 28, September 4, and September 7, 1984; December 5, 1985; May 23, September 25, and December 10, 1986; December 21, 1987; March 4, March 9 (2), March 22, April 26, August 22, September 8, and November 2, 1988; May 25 and November 17, 1989; June 27, 1990; April 30 and September 27, 1991; March 5, March 18, June 24, and September 10, 1992; January 20, 1995; the "SVA Decommissioning Plan" dated April 1, 1990 (submitted by letter dated March 30, 1990); August 22, 1990 (submitted by letter dated August 24, 1990); June 15, 1992; July 12 and August 23, 1994; Group 6 Laboratories unrestricted use request dated August 12, 1994; March 1, 1995; Group 7 Laboratories unrestricted use request dated December 5, 1995; Group 8B Laboratories unrestricted use request dated August 23, 1996; October 15, 1996; April 30, 1997; Group 9 Laboratories unrestricted use request dated July 17, 1997; Building 30 Laboratories unrestricted use release dated July 25, 1997; and January 29, 1998; Site Decommissioning Plan dated October 11 and December 5, 1996; April 18, 1997; January 15, 1998; Hot Cell Decommissioning Plan dated April 22, 1998; Group 10 Labs dated August 14, Building 27 Roof release dated August 25, and Building 30 - Phase II dated September 4, 1998; October 1, 1998; November 2, 1998 (Buildings 27 and 21); December 22, 1998 (SVB); January 12, February 8, (Buildings 37 and 39, Room 049B), March 23, 1999 (TFFF); March 9, May 17, (Radioactive Waste Storage Tanks), June 23, (Building 35-1, 36, 45, Test Tower Land), July 29, (Sorrento Valley Central Land Area), August 18, (Building 42), August 27, (Building 31-1), September 3, (Group 11 Building 2), and September 8, 1999 (Torrey Pines South); January 26 (Building 27 W, S, and SE Land Areas), January 27 (Building 30 - Phase III), March 10 (Hot Cell Site), March 30 (Sorrento Valley North Land Area), June 16 (Building 2 Laboratories Group 12), August 25 (Building 2 Laboratory Group 13), October 10 (Building 27 East and Northeast Land Areas), and November 7, 2000 (Torrey Pines Northeast Land Area); January 10 (Area 1 of Sorrento Valley West Land Area), February 15 (Areas 2 and 3 of Sorrento Valley West Land Area), February 23 (TFF Utility Corridor), April 4 (Building 2 Service Corridor Drain Line Trench), April 30 (LINAC North Land Area), August 2 (LINAC Land Area), and November 20, 2001 (Torrey Pines East Land Area); February 4 (Sewer Line Trench S-18 to S-15 to S-13), August 30 (Torrey Pines North Hillside Area), April 5 (Building 27-1),September 27 (TRIGA Trailer Land Area), October 9 (TRIGA Reactor Facility Electrical Pad), November 20 (Service Yard of Building 27), and December 18, 2002 (Building 31 Room 103A); January 14 (Torrey Pines North Highland Land Area - Suspect Affected Area of Section C), March 18 (Area 4 of the Sorrento Valley West Land Area), July 14 (Concrete Storage Bunker Located Within Area 5 of the Sorrento Valley West Land Area), September 3 (IFM High Lift), October 23 (Area 5 of the Sorrento Valley West Land Area), and October 31, 2003 (the Roof of GA's Building 2); February 11 and April 20, 2004 (the System of Sewers and Vaults), and March 18 (Non-Impacted Remaining Portion of General Atomic's Building 41), March 23 (DTSC Permitted Area (NWFP-1), April 4 (Former Building 25 Site), and May 25, 2005, (Remaining Portions of the Sorrento Valley South Land Area); February 6, March 29, and July 26, 2006; March 6, March 7, and March 14, 2007.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
SNM-696

Docket or Reference Number
70-734

Amendment No. 87

S-2. Records of all safety-related reports and analyses shall be retained as follows:

a. Copies of criticality and radiation safety analyses shall be retained for at least 2 years or for 6 months after a project is terminated, whichever is longer.

b. Copies of all other safety-related records (e.g., plant alterations and additions, abnormal occurrences associated with radioactivity releases, audits and inspections, instrument calibrations, ALARA findings, training and retraining, personnel exposures, routine radiation and environmental surveys) shall be retained for at least 2 years or longer if required by regulations.

S-3. Notwithstanding the statements in Section 5.4.2 in the License Specification Volume (Part II), if double batching is not credible, the maximum safe batch size shall be no more than 75 percent of the minimum critical mass independent of the degree of water moderation and reflection. However, when the Th/U atomic ratio is $\geq$ 3.6 and the H/U $\leq$ 20, the maximum safe batch size may be increased to 790 g contained U-235 independent of whether double batching is credible.

S-4. The Director QACD, upon recommendation of the appropriate manager within QACD, shall have authority to require immediate termination of activities and/or corrective action in any situation which, in their judgment, could lead to the unnecessary exposure of personnel to ionizing radiation, release of radioactive material, loss or damage of property, or non-compliance with the license or a regulation.

S-5. The Criticality and Radiation Safety Committee (CRSC), functioning as an ALARA Committee, shall meet at least annually to review (1) reports of audits and inspections performed since the last ALARA review and (2) employee exposures and effluent release data to determine (a) if there are any upward trends developing in personnel exposures for identifiable categories of workers, types of operations, or effluent releases, (b) if exposures and releases might be lowered in accordance with the ALARA concept, and (c) if equipment for effluent and exposure control is being properly used, maintained, and inspected.

The CRSC evaluation, recommendations, and corrective actions shall be documented and the report shall be sent to the appropriate operations managers and the Vice President, Finance and Administration.

S-6. Radiological Work Permits (RWPS) shall be issued for all unplanned or non-routine work with licensed material not covered by a WA. The RWP shall be signed by Health Physics management or a senior staff member before related work can commence. A senior staff member shall be a Health Physics Technician having a minimum of 5 years' experience in radiation safety. An evaluation of the safety effectiveness of the permit shall be made upon completion of the work.

S-7. Radiation safety training, appropriate to the employee's needs, shall be given to all new employees.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
SNM-696

Docket or Reference Number
70-734

Amendment No. 87

S-8. Radiation safety training and indoctrination shall be conducted by the Health Physics Manager or by a similarly qualified individual. The Health Physics Manager may delegate training in that portion of the course to an individual who is uniquely qualified to present it.

S-9. Continuous air sampling shall be conducted in any area where licensed material can become airborne.

S-10. The location of air samplers shall be checked annually and whenever any process or equipment changes are made to verify the representativeness of work area air sampling. In addition, the location of air samplers shall be checked at the commencement of operations in any area that has been shutdown for more than 6 months to verify the representativeness of air sampling.

S-11. The laboratories in which plutonium in a dispersible form may be used shall have exhaust ventilation systems separate from other building exhausts and shall provide dual HEPA filtering of the effluent air.

S-12. Sealed Plutonium sources shall be subject to the leak testing and actions specified in the attached "License Condition for Leak Testing Sealed Plutonium Sources," dated April 1993. Plutonium alpha sources shall be subject to the actions specified in the attached "License Condition for Plutonium Alpha Sources," dated April 1993.

S-13. The licensee shall prepare and submit to the Chief, Fuel Cycle Facilities Branch, Division of Fuel Cycle Safety and Safeguards, NMSS, U.S. Nuclear Regulatory Commission, Washington, DC 20555, a report whenever there is any new residential development within 1 mile around the site that constitutes a significant change in parameters that may be affected by the release of radioactive materials into the environment.

S-14. Deleted by Amendment 14 dated August 3, 1990 (originally numbered S-23 in 1990 - 1992 and renumbered to S-14 in Amendment 23 dated October 7, 1993). The information in License Condition S-23 was incorporated into License Condition S-9 by adding the date of May 25, 1989; License Condition S-9 later became S-1.

S-15. At the end of plant life, the licensee shall decontaminate the site and facilities, authorized as a place of use for special nuclear material, in accordance with the general decommissioning plan submitted by your letter dated July 25, 1986, and its supplement dated October 15, 1986, so that these facilities and grounds can be released for unrestricted use. The corporate commitment that funds will be made available for decommissioning the facility, provided by letter dated September 10, 1986, is hereby incorporated as a condition of the license.

S-16. Release of equipment, facilities, or packages to the unrestricted area or to uncontrolled areas onsite shall be in accordance with the attached "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated April 1993.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
SNM-696

Docket or Reference Number
70-734

Amendment No. 87

S-17. Deleted by Amendment 37, September 1996. The SVA facility has been decommissioned and released for general use.

S-18. Notwithstanding the statement in Section 4.2.1.4, Part II of the license, the trip levels will be readjusted after each monthly test of the criticality alarm system if the alarm point fails to activate within approximately 5 seconds, more than once out of four trials.

S-19. Notwithstanding the statements in Section 4.2.1.4, Part II of the license, no material handling shall be allowed in any area in which the required criticality alarm system is inoperative.

S-20. Deleted by Amendment 37, September 1996. The SVA facility has been decommissioned and released for general use.

S-21. Deleted by Amendment 31 dated September 1995. Fuel elements were shipped back to the licensee on October 3, 1988.

S-22. Deleted by Amendment 37, September 1996. The SVA facility has been decommissioned and released for general use.

S-23. The licensee shall maintain and execute the response measures described in the Emergency Plan dated October 10, 1997, and supplements dated November 6, 1997; October 1998; and July 26, 2006; or as further revised by the licensee consistent with the provisions of 10 CFR 70.32(i).

S-24. The licensee shall develop individual survey plans for each facility or group of laboratories and provide NRC a 30-day notification, prior to GA initiating a final survey, to allow the NRC to schedule in-process inspections/surveys if required.

S-25. The licensee must submit for review and approval to NRC residual contamination and characterization data and planned decommissioning procedures for areas where:

1. Decommissioning procedures will be required that have not been used by the licensee in previous decommissioning activities or have not been identified in the Site Decommissioning Plan dated October 11, 1996, as amended December 5, 1996; April 18, 1997; and January 15, 1998;

2. Workers would be entering areas where surface contamination and radiation levels are significantly higher than routinely encountered during previous decommissioning operations;

3. Procedures could result in significantly greater airborne concentrations of radioactive materials than have been present in previous decommissioning operations; or

4. Procedures could result in significantly greater releases of radioactive material to the environment than those associated with previous decommissioning operations.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
SNM-696

Docket or Reference Number
70-734

Amendment No. 87

SAFEGUARDS CONDITIONS

SG-1.0 Currently there are no Material Control and Accounting license conditions. The necessary information has been incorporated into an approved Fundamental Nuclear Material Control Plan dated March 1999.

SECTION 1.0 -- FACILITY ORGANIZATION

Deleted by Amendment 58, August 1999.

SECTION 2.0 -- FACILITY OPERATION

SG-2.1 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SG-2.2 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SG-2.3 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SG-2.4 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SECTION 3.0 -- MEASUREMENTS

SG-3.1 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SG-3.2 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SG-3.3 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SECTION 4.0 -- MEASUREMENT CONTROL

SG-4.1 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SG-4.2 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SG-4.3 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SG-4.4 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SG-4.5 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SG-4.6 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
SNM-696

Docket or Reference Number
70-734

Amendment No. 87

SG-4.7 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SG-4.8 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SECTION 5.0 -- INVENTORY

SG-5.1 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SG-5.2 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SG-5.3 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SECTION 6.0 -- RECORDS AND REPORTS

SG-6.1 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SECTION 7.0 -- INTERNAL CONTROL

SG-7.1 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SECTION 8.0 -- MANAGEMENT

SG-8.1 Deleted by Amendment 37, September 1996. Not applicable under a possession only license.

SECTION 9.0 -- PHYSICAL PROTECTION REQUIREMENTS FOR FORMULA QUANTITIES OF STRATEGIC SPECIAL NUCLEAR MATERIAL

SG-9.1 The licensee shall follow the measures described in the physical protection plan titled, "General Atomics' Fixed Site and Transportation Plan for the Protection of Special Nuclear Material of Low Strategic Significance" dated April 2003, and as it may be further revised in accordance with the provisions of 10 CFR 70.32(e) or 70.34.

SG-9.2 A. The licensee shall, nothwithstanding the provisions of any Commission regulation to the contrary, comply with the requirements described in the Interim Compensatory Measures (ICMs) for Category III Fuel Cycle Facilities enclosed in the letter from Mary T. Adams dated February 11, 2003. The licensee shall immediately start implementation of the ICM requirements and shall complete implementation no late than September 15, 2003.

B. 1. The licensee shall, within twenty (20) days of the date of Amendment 76, notify the Commission, (1) if it is unable to comply with any of the ICM requirements, (2) if compliance with any of the ICM requirements is unnecessary in its specific circumstances, or (3) if implementation of any of the ICM requirements would cause

the licensee to be in violation of the provisions of any Commission regulation or its license. The notification shall provide the licensee's justification for seeking relief from or variation of any specific requirement.

2. If the licensee considers that implementation of any of the ICM requirements would adversely impact safe operation of its facility, the licensee must notify the Commission, within twenty (20) days of the date of Amendment 76, of the adverse safety impact, the basis for its determination that the requirement has an adverse safety impact, and either a proposal for achieving the same objectives specified in the requirement in question, or a schedule for modifying the facilities to address the adverse safety condition. If neither approach is appropriate, the licensee must supplement its response to identify the condition as a requirement with which it cannot comply, with attendant justification as required in Condition B1.

C. 1. The licensee shall, within twenty (20) days of the date of Amendment 76, submit to the Commission, a schedule for achieving compliance with each ICM requirement.

2. The licensee shall report to the Commission when it has achieved full complicance with the ICM requirements.

D. Notwithstanding any provision of the Commission's regulations to the contrary, all measures implemented or actions taken in response to this license condition shall be maintained until the Commission determines otherwise.

SECTION -10.0 -- TEMPORARY OR ONE TIME CONDITIONS

SG-10.1 Deleted by Amendment 31, dated July 1995.

SG-10.2 Deleted by Amendment 31, dated July 1995.

SG-10.3 Deleted by Amendment 31, dated July 1995.