



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

July 3, 2000

Dr. Keith E. Asmussen, Director
Licensing, Safety and Nuclear Compliance
General Atomics
P.O. Box 85608
San Diego, California 92186-9784

SUBJECT: HOT CELL SITE - RELEASE TO UNRESTRICTED USE (TAC NO. L31365)

Dear Dr. Asmussen:

In accordance with your application dated March 10, 2000, and pursuant to Part 70 to Title 10 of the Code of Federal Regulations, Materials License SNM-696 is hereby amended to release the Hot Cell Site to unrestricted use and to delete references to this area from the license.

We have reviewed your March 10, 2000, request to remove the Hot Cell Site to unrestricted use and delete references to this area from the license. Your request was supported with a report entitled, "General Atomics' Final Radiological Survey Report for the Hot Cell Site," dated March 2000. Our review and an on-site inspection performed March 14-15, 2000, (NRC INSPECTION REPORT 70-734/00-01, June 20, 2000) have concluded that there is reasonable assurance that the release of the Hot Cell Site for unrestricted use will not adversely affect public health and safety or the environment.

Accordingly, Safety License Condition S-1 has been revised to include the date of March 10, 2000 (Hot Cell Site).

If, in the future, you desire to use licensed materials and conduct licensed activities at the Hot Cell Site you must apply for and receive an amendment to your license.

All other conditions of this license shall remain the same.

Enclosed are copies of the Materials License SNM-696 and the Safety Evaluation Report, which includes the Categorical Exclusion determination.

Sincerely,

Philip Ting, Chief
Fuel Cycle Licensing Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

Docket 70-734
License SNM-696
Amendment 66
Enclosures: 1. Materials License SNM-696
2. Safety Evaluation Report

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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 66
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. 200 kilograms U-235
B. Uranium	B. Enriched 20 to 100% U-235	B. Less than 5000 gm*
C. U-233	C. Any	C. Less than 2000 gm U-233*
D. Plutonium	D. Encapsulated and/or sealed sources	D. Less than 2000 gm total Pu*
E. Plutonium	E. Bred but unseparated	E. Less than 1000 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*

* 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)

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SUPPLEMENTARY SHEET**

License Number

SNM-696

Docket or Reference Number

70-734Amendment No. **66**

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: July 3, 2000By:  Philip Ting, ChiefFuel Cycle Licensing Branch
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
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70-734Amendment No. **66****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); and March 10, 2000 (Hot Cell Site).
- S-2. Records of all safety-related reports and analyses shall be retained as follows:
- 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.
 - 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 ≥ 3.6 and the H/U ≤ 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.

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- 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.
- 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, Licensing and International Safeguards 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.

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- 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.
- 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, supplemented by letter dated November 6, 1997; and Revision Date 10/98; 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.

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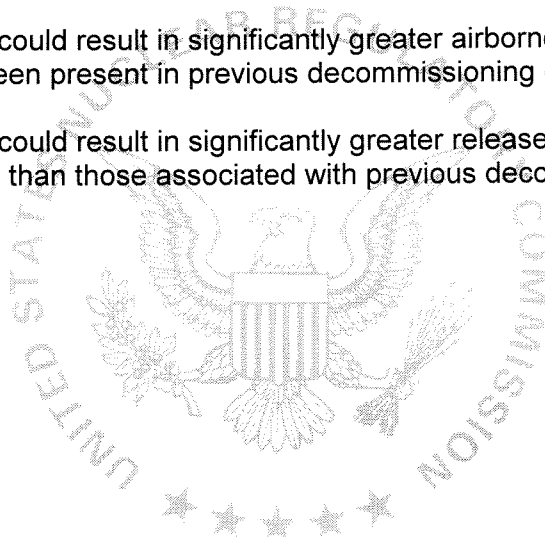
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S-25 The licensee must submit for review and approval to NRC residual contamination and characterization data and planned decommissioning procedures for areas where:

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.



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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.

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.

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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 entitled, "Fixed Site and Transportation Plan for the Protection of Special Nuclear Material of Moderate and Low Strategic Significance," dated May 1989, submitted by letter dated July 20, 1999; and as it may be further revised in accordance with the provisions of 10 CFR 70.32(e).

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.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

DOCKET NO: 70-734

LICENSEE: General Atomics (GA)
San Diego, California

SUBJECT: SAFETY EVALUATION REPORT: HOT CELL SITE - RELEASE TO
UNRESTRICTED USE (TAC NO. L31365)

BACKGROUND

In an application dated March 10, 2000, GA requested that their license be amended to remove authorized activities at the Hot Cell Land Area from their NRC license and to release the area for unrestricted use. GA provided a report titled, "General Atomics' Final Radiological Survey Report for the Hot Cell Site," dated March 2000, to demonstrate that they have met the approved release criteria.

The Hot Cell site includes the area where the former Hot Cell Facility (Building 23) was located, the former hot cell outdoor service yard, and portions of the immediately adjacent area beyond the yard. The Hot Cell building, surrounding structures, and land areas were dismantled and decommissioned in accordance with the "General Atomics Hot Cell Facility Decommissioning Plan", dated November 1995. This Decommissioning Plan was approved by NRC in amendment 35 to SNM- 696, dated May 1, 1996, and was approved by the State of California in license amendment 121 to Radioactive Materials License No. 0145-37, dated February 22, 1996. The release criteria are contained in the "General Atomics' Site Decommissioning Plan," September 1996, (the SDP) approved by NRC in Amendment 45 to SNM-696, April 29, 1998.

In a meeting with GA and the California Department of Health Services (DOHS) Radiologic Health Branch on November 4, 1999, NRC staff discussed the regulatory jurisdiction of the remaining GA facilities to be decommissioned. The regulatory jurisdictions were documented in Table S-1 of the GA Site Decommissioning Plan, approved by NRC in Amendment 45 to GA's license (April 29, 1998), and were confirmed by California DOHS at the meeting. This confirmation is documented in the meeting summary, memorandum to Theodore S. Sherr from Mary Adams and Charles Gaskin, December 13, 1999. Table S-1 identifies that the Hot Cell site is within the regulatory jurisdiction of the NRC.

DISCUSSION

On March 14-15, 2000, an NRC Region IV inspector reviewed the decommissioning activities in progress at the Hot Cell site. The structure had been removed. The underground drains and piping were also removed, and the trenches and pits created during their removal were open. There were several hundred linear feet of trenches from 1-15 feet deep and two pits varying to a depth of 25 feet. The purpose of the inspection was to perform a survey to confirm the licensee's determination that the Hot Cell site met the criteria established in Section 6.2.1, *Release Criteria*, of the SDP for unrestricted release. The final status survey report was reviewed and found to be in agreement with the methodologies contained in NUREG-5849, the

licensee's Hot Cell Facility Decommissioning Plan and SDP, and the requirements of 10 CFR 70.38(j).

Confirmatory surveys for ambient gamma radiation exposure levels and soil samples in the Hot Cell Facility land area were conducted by the inspector to determine the radiological status of the area being considered for release. Confirmatory surveys of ambient exposure rates at various locations along the perimeter and within the former Building 23 Hot Cell Facility area were consistent with licensee measurements. The NRC's confirmatory measurements verified the licensee's determination that the Hot Cell Facility area met the criteria established in Section 6.2.1, *Release Criteria*, of the site decommissioning plan (SDP) for unrestricted release (Section 2).

The results of NRC soil sample confirmatory measurements from the former Building 23 Hot Cell Facility area were in acceptable agreement with licensee results. The analysis of the soil samples taken from the area confirmed that the residual radioactive material present in the soil was less than the criteria established in Table 6-2, *Soil and Concrete/Asphalt Rubble Release Criteria*, of the SDP for unrestricted release (Section 2).

Based upon the NRC review of the Final Status Survey Report and NRC confirmatory measurements, NRC has determined that the Hot Cell site meets the approved criteria for unrestricted release from the NRC license.

ENVIRONMENTAL REVIEW

The staff has determined that the changes to the license are related to decreased operations at the facility resulting from the proposed overall decommissioning of the site. Accordingly, the staff has determined that the criteria in 10 CFR 51.22(c)(11) for categorically excluding an action from an environmental review have been met. Therefore, neither an Environmental Assessment nor Environmental Impact Statement is necessary for this action.

CONCLUSION

The staff has determined that removing the Hot Cell site from GA's NRC license is in accordance with their approved Hot Cell Facility Decommissioning Plan and meets regulatory requirements. The staff concludes that there is reasonable assurance that the proposed action will not adversely impact upon the health and safety of the public or the environment.

The Region IV Principal Inspector has no objection to this proposed action.

Principal Contributor

Mary T. Adams

Madams
7/3/00