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

15C

JUL 3 0 1990

Docket No. 70-25
License No. SNM-21
Amendment No. 6

Rocketdyne Division
Rockwell International Corporation
ATTN: Mr. P. D. Rutherford, Manager
Nuclear Safety and Reliability
Engineering
Mail Code HB07
6633 Canoga Avenue
Canoga Park, California 91303

Gentlemen:

In accordance with your application dated June 14, 1990, and pursuant to Title 10, Code of Federal Regulations, Part 70, Materials License No. SNM-21 is hereby amended to remove the requirement to maintain a Radiological Contingency Plan. Accordingly, Condition 9 is revised and Condition 24 is deleted from the license. The Condition 9 reads as follows:

9. Authorized use: For use in accordance with statements, representations, and conditions contained in Part I, except Chapter 8, of the licensee's application dated August 20, 1982, and supplements dated October 29 and December 17, 1982; March 2, March 7, May 29, and June 12, 1984; September 22, 1987; December 19, 1988; and January 26 and November 2, 1989.

All other conditions of the license shall remain the same. Please note that the request that all requirements in Part I of the license relating to criticality control be deleted is still under review.

Revised License No. SNM-21, incorporating Amendment No. 6, and our Safety Evaluation Report are enclosed.

FOR THE NUCLEAR REGULATORY COMMISSION

Charles J. Haughney

Charles J. Haughney, Chief
Fuel Cycle Safety Branch
Division of Industrial and
Medical Nuclear Safety, NMSS

08203 EC

Enclosures: As stated

A/15

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, 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. Rocketdyne Division Rockwell International Corporation	3. License number	SNM-21 Amendment No. 6
2. 8900 DeSoto Avenue Canoga Park, CA 91304	4. Expiration date	June 30, 1989
	5. Docket or Reference No.	70-25

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 enriched in U-235 isotope	A. Contamination	A. 400 grams U-235*
B. Pu (principally Pu-239)	B. Contamination	B. 400 grams Pu*
C. Pu (principally Pu-239)	C. In-process material	C. 6 grams Pu*

9. Authorized use: For use in accordance with statements, representations, and conditions contained in Part I, except Chapter 8, of the licensee's application dated August 20, 1982, and supplements dated October 29 and December 17, 1982; March 2, March 7, May 29, and June 12, 1984; September 22, 1987; December 19, 1988; and January 26 and November 2, 1989.

10. Authorized place of use: Building 020 and other authorized buildings at the licensee's Santa Susana Field Laboratory in Chatsworth, California, as described in the referenced application and supplements. Notwithstanding the statements in Section 1.2, the Canoga Park facilities and Building 055 at the SSFL site are not authorized as places of use under this license.

11. Notwithstanding Section 1.5(1), Pu shall be handled only for the purpose of decladding, removal of bonding material, examination, repackaging, and the TRUMP-S program described in the letter dated December 22, 1989. Authorization for the TRUMPS-S program shall end October 30, 1990.

12. Notwithstanding the statements in Section 1.7, the manufacture of fuel element assemblies and related activities are not authorized by this license.

13. The minimum qualifications for the Criticality Safeguards Advisor and the Physicist on the Fuels Committee shall be a B.S. degree in one of the physical sciences and a minimum of 2 years' experience in outside-of-reactor criticality safety analyses.

*Enriched uranium and plutonium in combination not to exceed 400 grams.

14. All personnel, prior to unsupervised work with special nuclear materials, shall receive formal training in nuclear criticality and/or radiation safety. The effectiveness of the training program shall be measured by written examination.

15. Copies of nuclear safety analyses, criticality studies, and other reports prepared by the Criticality Safeguards Coordinator or Criticality Safeguards Advisor regarding radiation or nuclear criticality safety shall be maintained for a period of at least 2 years or for 6 months after a project is terminated, whichever is longer.

16. Process designs shall incorporate sufficient factors of safety to require at least two unlikely, independent, and concurrent changes in process conditions before a criticality accident is possible.

17. Notwithstanding the use of alternative methods of calculation specified in Section 4.2.1 of Part I of the license application, only methods of analysis for calculating nuclear criticality safety parameters, satisfactorily demonstrated to the Commission and approved by it, shall be used in the evaluation of nuclear criticality safety.

18. The licensee shall check the director of air flow in the hot cell facility each month. When adverse air flows are detected, corrective action shall be taken and documented.

19. The licensee shall comply with the following regarding in-plant airborne sampling and monitoring.

a. Notwithstanding the statement in Section 3.2.4(1) of the application, the breathing zone air, in work areas where the dispersible form of radioactive material is handled, shall be sampled for airborne radioactive material during the normal operations.

b. The fixed air samplers shall be checked annually and whenever any process or equipment changes are made to verify that the airborne concentration of radioactivity collected at these locations are representative of the air being breathed by workers. In addition, prior to the commencement of operation in an area that has been shutdown for more than 6 months, the location of air samplers shall be checked to verify the representativeness of the air sampling.

20. The licensee's bioassay program for Pu shall comply with the following:

a. Employees working in the area where there is unencapsulated Pu shall submit urine samples at least quarterly for routine plutonium analysis.

b. If an employee has been exposed to greater than 40 MPC-hours of plutonium in any consecutive 7-day period, or if urinalysis shows $\geq$0.2 dpm of Pu per day, then fecal analysis shall be performed to evaluate exposure. If fecal analysis indicates a significant exposure to plutonium, then in-vivo lung counting shall also be performed.

c. If in-vivo lung counting indicates an individual has a MPLB, the employee shall be immediately removed from further exposure.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number
SNM-21 Amendment No. 6

Docket or Reference number
70-25

JUL 30 1990

d. The dose commitment from Am shall also be considered in the above Pu bioassay program.

21. The licensee shall comply with the following regarding the surface contamination:

a. Prior to exiting a restricted area, all individuals must monitor hands, head, personal clothing, and shoes for radiation contamination.

b. The licensee shall not allow an individual whose skin, personal clothing, or shoes are found contaminated above background levels to exit a restricted area without prior approval of the Radiation and Nuclear Safety Unit.

22. The licensee shall conduct leak testing of the encapsulated plutonium in accordance with Annex A, "License Condition for Leak Testing Sealed Plutonium Sources," dated November 1979.

23. Release of equipment and packages from the plant site or to unrestricted areas onsite shall be in accordance with Annex B, "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 August 1987.

24. Deleted.

25. At the end of plant life, the licensee shall decontaminate the facility and site in accordance with the general decommissioning plan submitted in the enclosures to letter dated March 15, 1978, so that these facilities and grounds can be released for unrestricted use. The financial plan, to assure that funds will be available for decommissioning, submitted by letter dated October 26, 1978, is hereby incorporated as a condition of the license.

FOR THE NUCLEAR REGULATORY COMMISSION

Date: July 30, 1990

By: Charles J. Haughney
Charles J. Haughney, Chief
Division of Industrial and
Medical Nuclear Safety
Washington, DC 20555

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

JUL 30 1990

DOCKET NO: 70-25

LICENSEE: Rocketdyne Division
Rockwell International Corporation
Canoga Park, California

SUBJECT: SAFETY EVALUATION REPORT FOR AMENDMENT REQUEST DATED JUNE 14, 1990, RE EXEMPTION FOR RADIOLOGICAL CONTINGENCY PLAN (RCP)

Background

By letter dated June 14, 1990, Rocketdyne requested an exemption from the emergency plan requirements of 10 CFR 70.22(i), the criticality alarm requirements of 10 CFR 70.24, and requirements relating to criticality control in Part I of the license. Rocketdyne also requested exemptions regarding the SNM Control and Accountability Plan, Physical Security Plan, and physical protection of SNM in transit, which will be handled by the Division of Safeguards.

Discussion

To possess enriched uranium or plutonium, each applicant is required by 10 CFR 70.22(i) to submit an emergency plan if "a criticality alarm system is required, uranium hexafluoride in excess of 50 kilograms in a single container or 1,000 kilograms total, or in excess of 2 curies of plutonium in unsealed form or on foils or plated sources." Because of Rocketdyne's possession limit of 400 grams of special nuclear material, it is not subject to the requirements for a criticality alarm system (see discussion below). Additionally, the company does not possess uranium hexafluoride. Rocketdyne states that the Pu contamination is less than 30 mCi. The Region V Principal Inspector agreed that 30 mCi was a reasonable estimate of the remaining Pu contamination. Rocketdyne's possession limit allows the company to have up to 400 grams of special nuclear material in the form of contamination. However, because Rocketdyne is only authorized to conduct activities related to decommissioning and the actual possession limit is well below 2 curies of plutonium, the staff agrees that Rocketdyne does not need to maintain the RCP. Rocketdyne does not need a specific exemption from 10 CFR 70.22(i) because the company has not filed for renewal after the April 7, 1990, effective date of the regulation. However, since Rocketdyne is required by License Condition 24 to maintain its RCP dated July 25, 1988, and revision dated May 19, 1989, this condition should be deleted from the license. Rocketdyne submitted a revised RCP on December 22, 1989, which has not been incorporated into the license. No action will be taken on this revision since it is superseded by this request. Additionally, Chapter 8 of the license application regarding the RCP should be deleted. Therefore, the staff recommends that Condition 9 be revised as follows:

9. Authorized use: For use in accordance with statements, representations, and conditions contained in Part I, except Chapter 8, of the licensee's application dated August 20, 1982, and supplements dated October 29 and December 17, 1982; March 2, March 7, May 29, and June 12, 1984; September 22, 1987; December 19, 1988; and January 26 and November 2, 1989.

Rocketdyne will continue to maintain its Master Emergency Plan, which includes procedures to respond to all industrial accidents.

Rocketdyne also requested an exemption from the criticality alarm requirements of 10 CFR 70.24. Because of Rocketdyne's 400 gram possession limit and the fact that they do not have massive moderators or reflectors, they are not subject to this requirement. Therefore, Rocketdyne does not need a specific exemption.

Rocketdyne also requested that all requirements relating to criticality control that are established in Part I of the license be deleted. This aspect of the request is still under staff review, therefore, no action will be taken at this time. If there are specific requirements Rocketdyne would like the staff to consider in the interim, an amendment request (in the form of revised pages) should be submitted listing the specific requirements to be deleted from the license.

Conclusion/Recommendation

The staff has determined that Rocketdyne does not need to maintain its RCP. Therefore, the staff recommends that License Condition 24 be deleted to remove the requirement for an RCP and Condition 9 be revised to delete Chapter 8 from the license.

The Region V Principal Inspector has no objection to the proposed action.

Merri Horn

Merri Horn
Uranium Fuel Section
Fuel Cycle Safety Branch
Division of Industrial and
Medical Nuclear Safety, NMSS

Approved by: George H Bidinger
George H Bidinger, Section Leader