

Energy Systems Group
8900 De Soto Avenue
Canoga Park, CA 91304
Telephone: (213) 341-1000
TWX: 910-494-1237
Telex: 181017



Rockwell
International

FDR

70-25

May 10, 1979

In reply refer to 79ESG-4754

Mr. George W. McCorkle, Chief
Physical Security Licensing Branch
Division of Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Applicant.....
Check No. <i>07101885</i>
Amount/Fee Category <i>2500.71A</i>
Type of Fee <i>minor slip</i>
Date Check Recd. <i>5/17/79</i>
Received By <i>Ellen</i>

Dear Mr. McCorkle:

Subject: Physical Security of Special Nuclear Material
Docket 70-25

The Energy Systems Group of Rockwell International is currently conducting fuel fabrication activities at the Group Headquarters Facility at 8900 De Soto Avenue, Canoga Park, California, under Special Nuclear Material License SNM-21 with physical security for the special nuclear materials provided as described in AI-74-5, Revision A, and in accord with Part A of Section 9.0 of Materials and Plant Protection Amendment MPP-1 to License SNM-21. Material control and accountability is provided as described in AI-75-15, "Fundamental Material Control for Special Nuclear Material," and AI-74-12, Supplement 1, "Special Nuclear Materials Control Program for Uranium-Aluminum Fabrication Operations," and the associated license conditions in Amendment MPP-1 to License SNM-21.

One of the steps in the fuel fabrication process requires the examination of rolled fuel plates with an x-ray fluoroscope to locate accurately the position of the fuel-bearing material inside the aluminum cladding. This examination is currently being conducted on the fuel plates with an x-ray fluoroscope located in Room 119-33D, as shown in Figure 2.1 of AI-74-5, Revision A. As discussed in my recent telephone conversations with Mr. Jerry Innes of your staff, this x-ray fluoroscope is not providing the necessary location accuracy and resolution on the fuel-bearing material in some of the research reactor fuel plates. This is resulting in a significant perturbation in our fuel fabrication activities with a consequent deterioration in our capability to meet our production schedules.

We have recently located another fluoroscope at the McDonnell Douglas plant in Huntington Beach, California, some 60 miles from our plant here in Canoga Park. This equipment contains an x-ray intensifier which, we believe, will provide the sufficient intensity to give the increased

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resolution and location accuracy necessary for our operation. However, before initiating the plans to obtain such equipment for our facility, we feel that it is necessary to check out the performance of the equipment with some production fuel plates. Therefore, please consider this letter a formal application for an amendment to License SNM-21 to conduct a series of operational performance tests with the Missouri University and Michigan University fuel plates with the x-ray fluoroscope at the McDonnell Douglas plant in Huntington Beach under the security and material control and safeguard conditions described below.

The fuel plates have all been fabricated through Step 8 as described in Section 4.3.5 of AI-74-12, Supplement 1. They are in the form of flat plates, and the Missouri University plates are approximately 26-in. long and vary in width from about 2 in. to 4-1/2 in., while the University of Michigan plates are approximately 25-in. long and 2-3/4-in. wide. Special nuclear material content varies from 19.2 to 45.3 grams of U-235 in the Missouri fuel plates, and the Michigan plates all contain about 8 grams of U-235. Each plate is identified with a serial number.

In this operational checkout activity, only one plate will be taken from the material access area to Huntington Beach at any one time. On those days when the plate is to be checked at McDonnell Douglas, the plate will be selected and packaged inside the material access area for transport to the testing site. The plate will be checked by serial number by the guard at the exit of the fuel fabrication area and will remain under continuous surveillance by two authorized individuals from the Energy Systems Group. At all times while the plate is outside the material access area, the two ESG individuals will work directly with the personnel from McDonnell Douglas during the operational testing program with the uranium-bearing plate. When the testing program is completed, the plate will be returned to Energy Systems Group by the two authorized individuals and will be checked back into the material access area by serial number by a guard at the entry to the protected area. At no time during this operational test will any uranium-bearing fuel plate be stored at McDonnell Douglas or be without surveillance by the authorized individuals from the Energy Systems Group. All ESG personnel who will be involved in handling the fuel plate will be searched upon leaving or entering the material access area with the plate, as described in the approved security plan in AI-74-5, Revision A.

As indicated above, this is to be an interim operation only until we have completed our evaluation of the McDonnell Douglas x-ray equipment for use in a fuel location operation. Since this equipment is presently available for our operational test, we would like to have your approval for this amendment by May 21, 1979, so that we can initiate the testing

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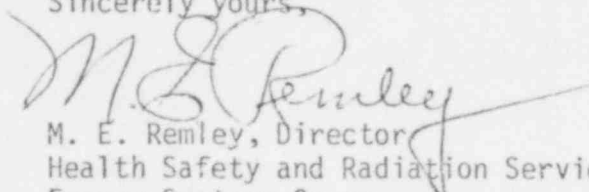
program by that date. We expect the program to be completed within approximately 30 days, but we would like to have the amendment period to extend for at least 60 days to provide for any contingencies or anomalous results in the testing program.

As required in Section 170.31 (1A) of 10 CFR 170, we have determined that this application is for a minor safeguards amendment and, thus, is subject to a fee of \$3,500. Therefore, enclosed is a check for \$3,500 in payment of the required fee.

We appreciate your early review and action on this application to assure our being prepared to initiate the operational testing program at McDonnell Douglas on May 21, 1979.

If you have questions or require further information, please call me at (213) 341-1000, Extension 2238.

Sincerely yours,


M. E. Remley, Director
Health Safety and Radiation Services
Energy Systems Group

bes:4/1-3

Enclosure

cc w/o enclosure: James G. Partlow, Chief
Material Control Licensing Branch

312 359 12996

McConnell

Docket No. 70-25

"SAFEGUARDS AMENDMENTS"

MC # _____

SG # _____

MCL# _____

PSL# _____

William O. Miller
License Fee Management Branch
Office of Administration

MATERIALS SAFEGUARDS AMENDMENT CLASSIFICATION

Applicant Lockwell

License No: SNM-21 Fee Category: 1A

Application Dated: 5-10-79 Received: 5-17-79

Applicant's Fee Classification: minor safeguards

The above application for amendment has been reviewed by the NMSS' Division of Safeguards in accordance with Section 170.31 of Part 170 and is classified as follows:

1. Safeguard amendments to licenses in fee Categories 1A through 1H

(a) Major Safeguards

(b) Minor Safeguards

(c) Safeguards (Categories 1D through 1G only)

(d) Administrative

2. Justification for reclassification: _____

3. The application was filed (a) pursuant to written NRC request and the amendment is being issued for the convenience of the Commission, or (b) Other (State request) _____

Signature: [Handwritten Signature]

Division of Safeguards, NMSS

Date: 5/23/79

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