



70-1151

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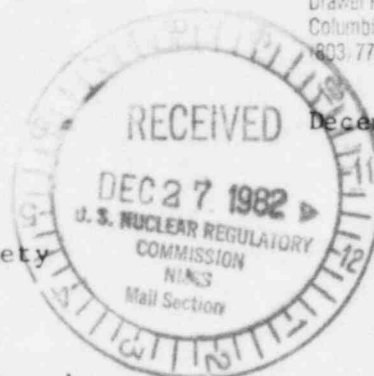
Westinghouse  
Electric Corporation

Nuclear Fuel Division  
Manufacturing Department

Drawer R  
Columbia South Carolina 29250  
(803) 776-2610

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December 17, 1982



U. S. Nuclear Regulatory Commission  
Uranium Fuel Licensing Branch  
Division of Fuel Cycle and Material Safety  
Washington, D. C. 20555

ATTENTION: Mr. W. T. Crow  
Uranium Process Licensing Branch

SUBJECT: Request for Unconditional Release of UF<sub>6</sub> Cylinder Overpacks,  
SNM-1107, Docket 70-1151

Gentlemen:

Westinghouse Electric Corporation hereby submits information and data regarding UF<sub>6</sub> cylinder overpacks which are being prepared for release for unrestricted use in accordance with Annex C of SNM-1107. The overpacks were previously used to transport filled UF<sub>6</sub> cylinders from our UF<sub>6</sub> gas suppliers.

Survey results indicate that surface contamination and radiation levels are well below acceptable levels as defined in Annex C, Table 1 of SNM-1107. Consequently, Westinghouse plans to release the containers for unrestricted use on or after January 17, 1983. Attached is additional information concerning the scope of the surveys and findings.

Furthermore, we request permission to release additional containers in the future in accordance with the criteria listed in the attachment.

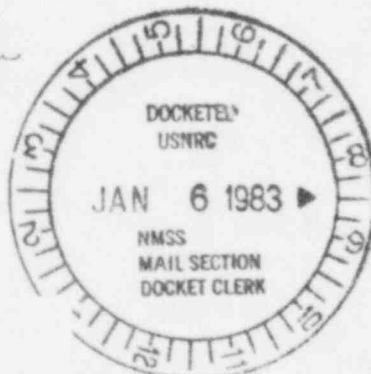
If you have any questions regarding this matter, please write to me or telephone me at (803) 776-2610.

Very truly yours,

WESTINGHOUSE ELECTRIC CORPORATION

*Edward Reich*  
E. K. Reitler  
Fellow Engineer

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SNM-1107, DOCKET 70-1151

UF<sub>6</sub> CYLINDER OVERPACK SURVEILLANCE REPORTIdentification

The equipment consists of protective overpacks which were used during the transportation of UF<sub>6</sub> cylinders.

Decontamination Technique

The overpacks required minimal decontamination since they were not routinely in contact with or subjected to radioactive contamination.

Surveillance

Surveys were performed for beta/gamma radiation and fixed and removable alpha contamination on all surfaces of the overpacks; both inside and outside beta gamma measurements were performed with a calibrated Eberline E-120 ratemeter with a beta gamma end window probe of less than seven milligrams per square centimeter of total absorber, on contact with the overpacks' surfaces. Fixed alpha measurements were performed with a calibrated Eberline Pac 4G with an AC-21 probe on contact with the overpack surfaces. Removable alpha contamination was determined by wiping inside and outside surfaces with Whatman 41 filter, using moderate pressure, and counting these smears in a calibrated proportional counter. Additionally, samples of the packing material between the inner and outer container housings were sampled by core drilling and analyzed in a calibrated proportional counter to determine the presence of radioactive material in this space.

Survey results are shown below.

<u>Measurement</u>	<u>Average</u>	<u>Maximum</u>
Beta-Gamma	0.05 mr/hr	0.05 mr/hr
Fixed Alpha	29 dpm/100 cm <sup>2</sup>	100 dpm/100 cm <sup>2</sup>
Removable Alpha	19 dpm/100 cm <sup>2</sup>	54 dpm/100 cm <sup>2</sup>
Inner packing (Alpha)	12.2 pCi/gram	30 pCi/gm

Measurements were taken on representative areas of the overpacks with emphasis on areas where contamination could accumulate, such as interior bottoms and sides. All areas of the containers were accessible to surveillance with the exception of the space between the inner and outer container surfaces which is filled with a shock absorbing material. This material was sampled and analyzed as previously described.

Surveillance (continued)

It is expected that we will be routinely replacing older cylinder overpacks as the need arises. Consequently, the following values will be used as release criteria without requesting prior NRC approval.

<u>Measurement</u>	<u>Average</u>	<u>Maximum</u>
Beta-Gamma	0.05 mr/hr	0.10 mr/hr
Fixed Alpha	50 dpm/100 cm <sup>2</sup>	200 dpm/100 cm <sup>2</sup>
Removable Alpha	40 dpm/100 cm <sup>2</sup>	100 dpm/100 cm <sup>2</sup>
Inner packing (Alpha)	N/A	30 pCi/gm

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~~② 17~~  
"LICENSE AMENDMENTS"  
③ DW

Docket No. 70-1151

William O. Miller, License Fee Management Branch, ADM

MATERIALS LICENSE AMENDMENT CLASSIFICATION

Applicant: Westinghouse  
License No: SNM-1107 Fee Category: 1B  
Application Dated: 12-17-82 Received: 12-30-82  
Applicant's Classification:                                 

The above application for amendment has been reviewed by NMSS in accordance with §170.31 of Part 170, and is classified as follows:

1. Safety and Environmental Amendments to Licenses in Fee Categories 1A through 1H, 2A, 2B, 2C, and 4A
  - (a)  Major safety and environmental
  - (b)  Minor safety and environmental
  - (c)  Safety and environmental (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 reason): Information Only. No amendment necessary  
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U.S. N.R.C.  
FEE MGMT. BRANCH

Signature W. J. Bean  
Division of Fuel Cycle & Material Safety  
Date 1/4/83