

November 26, 1975

Kerr-McGee Nuclear Corporation
McGee Tower
Oklahoma City, Oklahoma 73102

IE Bulletin No. 75-07
License Nos. SUB-1010,
SUB-986, and
35-12636-C6

Gentlemen:

Enclosed is IE Bulletin No. 75-07, EXOTHERMIC REACTION IN USED
HEPA FILTERS, which requires action by you with regard to your
NRC licensed activities.

Should you have questions regarding this Bulletin or the actions
required of you, please contact this office.

Sincerely,

E. Morris Howard
Director

Enclosure:
IE Bulletin No. 75-07

Approved by GAO, B-180225 (ROC72),
clearance expires 7/31/77. Approval
was given under a blanket clearance
specifically for identified generic
problems.

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PDR FOIA
BARNES85-529 PDR

OFFICE	IE:IV				
SURNAME	HJPas	EMH			
DATE	11/26/75	11/26/75			

Date: November 26, 1975

DESCRIPTION OF CIRCUMSTANCES:

Nuclear Engineering Company, Inc. (NECO), Louisville, Kentucky notified the Kerr-McGee Nuclear Corporation and IE:III on, respectively, June 30, 1975, and July 2, 1975, that they had received a waste shipment at their Beatty, Nevada burial site from the Cimarron Plutonium facility in a Super Tiger shipping container (Certificate No. 6400) on June 25, 1975. When the shipment was opened by NECO on June 26, 1975, they found evidence that an exothermic reaction had taken place inside a DOT Specification 12B fiberboard carton containing a 24" x 24" x 12" acid resistant HEPA filter. The box was thermally hot on receipt and the outside of the box was scorched. The nylon filament tape used to seal the box had melted, fusing the box to another box. Less than 450 c/m of alpha contamination was detected on the box and it was immediately buried.

This filter was identified as one serving a glovebox system in which nitric acid is used to dissolve scrap oxide materials for purification. Nitrogen oxide gases and water vapor were released through the filter. The filter had been bagged out in a 4 mil polyethylene (PE) bag, placed in the original shipping carton, packaged again in another PE bag before being placed in the DOT 12B fiberboard carton. On another occasion a similar filter package had emitted nitrogen oxide fumes while in storage at the Kerr-McGee plutonium plant.

The cause of the reaction is unknown, since most of the constituent materials in the HEPA filter do not readily react with nitric acid. The exothermic reaction may have occurred in extraneous materials placed in the package or in the packaging material itself.

ACTION TO BE TAKEN BY LICENSEES:

The following actions are requested of reprocessing plants, fuel cycle plants and major laboratory licensees:

1. Review your present or planned operations to determine if there are processes that emit corrosive gases, particularly nitrogen oxide, into ventilation systems filtered by HEPA filters.
2. Review your procedures for the handling, packaging, storing, and shipping of materials, particularly cellulose materials or other readily oxidizable substances that have been exposed to nitric acid, nitrogen oxide gases, or other oxidizing agents, to determine if appropriate precautions are being taken to preclude an exothermic reaction.
3. Report to this office, in writing within 30 days of the date of this Bulletin, the results of your review and, if appropriate, the actions you have taken or planned to correct these problems. Records of your evaluations should be maintained for examination during the next routine inspection of your facility.

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November 26, 1975

U. S. Nuclear Regulatory Commission
NRC Public Document Room
1717 H Street, N.W.
Washington, D.C. 20555

Enclosed is correspondence listed below relating to Kerr McGee Nuclear Corporation, License Nos. SUB-986 and 35-12636-06.

Letter dated November 26, 1975, E. Morris Howard to Kerr McGee Nuclear Corporation transmitting IE Bulletin No. 75-07

This correspondence is submitted for use by the public pursuant to arrangements made with you by the Office of Administration, USNRC.

Sincerely,

Glen D. Brown, Chief
Fuel Facility and Material
Safety Branch

cc: NSIC, w/encl.

OFFICE	IE: IV					
SURNAME	HJPaas; jam	GD Brown				
DATE	11/26/75	11/26/75				

January 7, 1976

U. S. Nuclear Regulatory Commission
NRC Public Document Room
1717 H. Street, N.W.
Washington, D.C. 20555

Enclosed is correspondence listed below relating to Kerr McGee Nuclear Corporation, License Nos. 80E-986 and 35-12636-06.

Letter dated December 29, 1975, W. J. Shelley to E. M. Howard regarding IE Bulletin No. 75-07.

This correspondence is submitted for use by the public pursuant to arrangements made with you by the Office of Administration, USNRC.

Sincerely,

Glen D. Brown, Chief
Fuel Facility and Material
Safety Branch

cc: NSIC, w/encl.

IE:TW

GDBrown:jam

1/7/76

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KERR-McGEE NUCLEAR CORPORATION

KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

December 29, 1975

E. Morris Howard, Director
U. S. Nuclear Regulatory Commission
Office of Inspection & Environment
Region 4
611 Ryan Plaza Drive - Suite 1000
Arlington, TX 76012

Dear Mr. Morris,

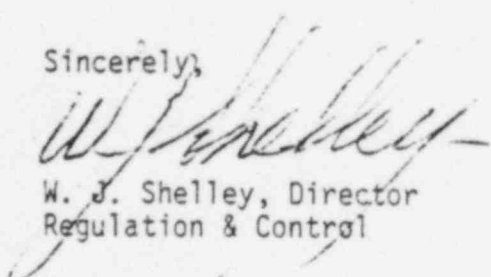
Please refer to your letter of November 26, 1975, requesting that certain action be taken by licensee in regards to the subject HEPA filters.

The actions requested have been taken with the following results:

1. Certain of our current operations release nitrogen-oxides into ventilation systems filtered by HEPA filter.
2. Since this incident, we have instituted a revised operating procedure requiring neutralization of the filter with sodium-hydroxide solution prior to packaging for shipment. A copy of this procedure is attached for your inspection.
3. We have taken the action described in paragraph 2 as a routine precaution to insure that this does not re-occur.

Please let us know if you require additional or more detailed information.

Sincerely,


W. J. Shelley, Director
Regulation & Control

WJS/cb
Enclosure

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