



KERR-McGEE CORPORATION

KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

December 1, 1998

Mr. Stewart Brown
Low-Level Waste & Decommissioning Projects Branch
Division of Waste Management
Office of Nuclear Materials Safety & Safeguards
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Docket No. 70-3073
License No. SNM-1999

Dear Mr. Brown:

Kerr-McGee Corporation (KMC) received your letter dated November 13, 1998 regarding the transfer of two depleted uranium bullets from the Cimarron site to the State of Washington's Department of Health. You requested additional information from KMC because the bullets apparently originated from the Cushing facility.

The two depleted uranium bullets were machined from depleted uranium originally generated at the Cushing site. The depleted uranium was reportedly shipped to New York, where it was blended with molybdenum and shaped into rods. The rods were returned to Cushing and then sent to a machine shop in New Mexico, to be machined into 50-caliber tracer bullets. Finished rounds were shipped to a Frankfort, Kentucky arsenal; off-spec bullets and scrap were returned to Cushing.

As the Cushing license with AEC was being terminated in the 1960's, off-spec bullets and uranium/molybdenum scrap was transferred to Cimarron. Two bullets were kept by Cimarron to be used as check sources for their decommissioning efforts. The remaining off-spec bullets and scrap were buried in Burial Area #1 at Cimarron. Cimarron decommissioning eventually progressed to a point where all of Burial Area #1 was exhumed and shipped to a licensed disposal site. Upon nearing completion of the Cimarron decommissioning efforts the check sources were no longer needed. Cimarron received an expression of interest in the two off-spec DU bullet check sources from the State of Washington Department of Health and upon verifying their license allowed such possession, the two off-spec bullets were transferred to Washington State Dept. of Health with shipment occurring on October 22, 1997.

Personnel at the Cushing and Cimarron sites are not aware of any remaining depleted uranium bullets at either site. There has been speculation that some off-spec bullets may have been removed from the Cushing site as personal souvenirs, but KMC has no evidence or documentation of that and cannot confirm or deny the speculation.

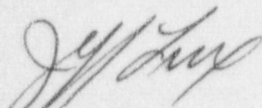
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It is important to note that much of this information is anecdotal. KMC has found no records regarding the uranium bullets at Cushing, but records do exist of the shipment of the two DU bullets to the State of Washington by Cimarron. I attach a copy of the State of Washington license and the shipping records of that transfer.

If you have any questions or comments regarding these bullets, please call me at (405) 270-2694 (OKC) or (918) 225-7753 (Cushing).

Sincerely,



Jeff Lux
Project Manager

Attachments

xc: C. L. Cain, NRC Region IV
Cushing Citizens' Oversight Committee
Earlon Shirley, ODEQ
Darrell Shults, ODEQ

NOTICE OF SHIPMENT
FROM
CIMARRON CORPORATION
A SUBSIDIARY OF KELR-McGEE Corporation
P.O. BOX 315 - CRESCENT, OK 73028

company GARY ROBERTSON, DEPT. OF HEALTH STATE OF WASHINGTON address AIR DUSTRIAL CENTER, BLDG. 5 City OLYMPIA State WASHINGTON Zip 98504-7827	The property described below in apparent good order except as noted (Contents and condition of contents of packages unknown), marked, consigned and destined as indicated below which said carrier (the word carrier being understood throughout this contract as meaning any person or Corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination. If on its own route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Official, Southern, Western and Illinois freight Classifications in effect on the date hereof, if this is a rail or a rail water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment. Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading including those on the back thereof set forth in the classifications or tariff which governs the transportation of this shipment and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns									
MATERIAL DESCRIPTION gross wt. Pounds	Date Of Shipment 10/22/97 Customer Order Number N/A									
number of 1 5 GALLON PAIL NOT DOT REGULATED RADIOACTIVE MATERIAL, EXCEPTED PACKAGE ARTICLES MANUFACTURED FROM NATURAL OR DEPLETED URANIUM OR NATURAL THORIUM. 218 GMS. DEPLETED Gross lb Total 68	Transport ID No. N/A Shipment No. CF-1372 Shipping Method FED-X PICKUP NO.# 79 Phone: 1-800-238-5355									
<table style="width: 100%;"> <tr> <td><input checked="" type="checkbox"/> Dep.Uranium</td> <td><input type="checkbox"/> %U-235</td> <td><input type="checkbox"/> U-238</td> </tr> <tr> <td><input type="checkbox"/> U-234</td> <td><input type="checkbox"/> %U-235</td> <td><input type="checkbox"/> TC "</td> </tr> <tr> <td></td> <td><input type="checkbox"/> %U-235</td> <td><input type="checkbox"/> Other</td> </tr> </table>		<input checked="" type="checkbox"/> Dep.Uranium	<input type="checkbox"/> %U-235	<input type="checkbox"/> U-238	<input type="checkbox"/> U-234	<input type="checkbox"/> %U-235	<input type="checkbox"/> TC "		<input type="checkbox"/> %U-235	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Dep.Uranium	<input type="checkbox"/> %U-235	<input type="checkbox"/> U-238								
<input type="checkbox"/> U-234	<input type="checkbox"/> %U-235	<input type="checkbox"/> TC "								
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STABILITY CLASS UNSTABLE ACTIVITY OF SHIPMENT mCi .07 Mbq 2.59	WASTE FORM CLASS CLASS A PHYSICAL FORM DEPLETED URANIUM METAL RADIOACTIVE LABEL APPLIED EXCEPTED									
FISSILE CLASS TRANSPORT INDEX FISSILE ACCEPTED HAZARD CLASS EXCEPTED	CHEMICAL FORM OXIDES RADIONUCLIDE									
OFF-SITE SMEARABLE CONTAMINATION Shipment < 2200 d/m-100 cm² beta gamma < 220 d/m-100 cm² alpha DATA IDENTIFICATION # 5 GALLON PAIL UN1A2 37A80 Y368 INCASE OF EMERGENCY CALL (405)282-2935	PAIL SURFACE DOSE RATE (< 0.002 mSv) (< 0.2 mrem/hr.) PAIL DOSE RATE @ 6 ft. (< 0.002 mSv) (< 0.2 mrem/hr.) By (Health Physicist) <i>[Signature]</i>									

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transported according to the applicable regulations of the Department of Transportation and NRC.
 *If the shipment moves between two parts by a carrier by water, the law requires that the bill of lading shall state whether it is "carriers' or shippers weight"
 NOTE--Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property hereby specifically stated by the shipper to be not exceeding.

CIMARRON CORPORATION
 BY *[Signature]*
VIRGIL RICHARDS
 By *[Signature]*
M.W. HODO

[Signature]
 DRIVER'S SIGNATURE

DATE **10-22-97**

Radioactive Materials License



CORRECTED COPY 04/15/94

AMENDMENT NO. 6

6. Radioactive Material
(diagram and mass number)

7. Chemical and/or Physical Form

8. Maximum quantity becomes very
possessive of any one thing

A. ANY.

A. 100 mCi (3700 megabecquerels) of any single isotope, not to exceed 500 mCi (18,500 megabecquerels) total.

B. ANY.

B. 10 ^{mCi} ~~per~~ (370 megabecquerels) of any single isotope, not to exceed 100 mCi (3700 megabecquerels) total.

C. ANY.

C. As necessary for uses authorized by License Condition 9.C

/ * \ / * \ / * \ / * \ / * \ / * \ / * \ / * \

CONDITIONS

9. Authorized use.

A. Sealed sources for calibration and reference use; and contamination present on articles, wipes, and environmental samples.

B. Same as Q. A.

C. Any sealed or unsealed radioactive material being safeguarded for the protection of the public health.

State of Washington

Radioactive Materials License

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License Number WN-LO111-1

Amendment No. 6

10. Radioactive materials shall be stored and/or used at Bldg. 5, Airdustrial Center, Olympia, Washington or temporary inspection sites within the boundaries of Washington state.
11. The licensee shall comply with the provisions of Chapter 246-220 WAC, "Radiation Protection -- General Provisions"; Chapter 246-221 WAC, "Radiation Protection Standards"; Chapter 246-222 WAC, "Radiation Protection -- Worker Rights"; Chapter 246-235 WAC, "Radioactive Material Specific Licenses"; Chapter, 246-247 WAC, "Air Emissions"; Chapter 246-249 WAC, "Use of Commercial Disposal Site".
12. The Radiation Safety Officer for this program shall be Terry C. Frazee, Supervisor, Radioactive Materials Section.
13. Radioactive material shall be used by or under the supervision of Terry C. Frazee, Radiation Safety Officer, J.A. Waite, Assistant Radiation Safety officer, or designated Health Physicist of the Office of Radiation Protection.
14. The radioactive materials authorized in this license shall not be used in human beings or in products distributed to the public.
15. The transport of licensed material by the licensee, or the delivery of licensed material to a carrier for transport, shall be in accordance with WAC 246-232-090 "Transportation."
16. The licensee's emergency procedures shall conform to procedures outlined in the Washington State Radiation Emergency Handbook revised November 1991 or subsequent revisions.
17. A.1. Each sealed source containing licensed material shall be tested for leakage and/or contamination at intervals not to exceed six months. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, a sealed source received from another person shall not be put into use until tested.
 2. Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries (3.7 megabecquerels) or less of beta and/or gamma emitting material or 10 microcuries (370 kilobecquerels) or less of alpha emitting material.

State of Washington

Radioactive Materials License

Page 3 of 3 Pages

License Number WDN 10111-1

Amendment No. 6

- B. The test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries (or becquerels) and maintained for inspection by the department.
- C. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed in accordance with department regulations. A report shall be filed within five (5) days of the test with the department describing the equipment involved, the test results, and the corrective action taken.
- D. The licensee is authorized to perform leak test sampling in accordance with their Radioactive Materials License Application. The analysis shall be performed by persons specifically authorized by the department, the U.S. Nuclear Regulatory Commission, an Agreement State, or a Licensing State to perform such services. Alternatively, leak test samples may be collected and/or analyzed by other persons specifically authorized by the department, the U.S. Nuclear Regulatory Commission, an Agreement State, or a Licensing State to perform such services. Licensing State authorization applies to naturally occurring and accelerator produced radioactive material (NARM) only.
18. Except as specifically provided by this license, the licensee shall possess and use radioactive material described in Items 6, 7, and 8 of this license in accordance with statements, representations and procedures contained in the documents listed below. The department's "Rules and Regulations for Radiation Protection" shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

A. Application and attachments dated 6 August 1992,

FOR THE STATE OF WASHINGTON DEPARTMENT OF HEALTH

Date January 28, 1994

pw By Debra McBaygh
Radioactive Materials Licensing