

CORRES. CONTROL
COMING LTR NO.

JAN 99 11:5K
REFERS-CC

00012 RF 92

States Government

Department of Energy

DUE DATE
ACTION

Rocky Flats Field Office

Memorandum

JAN 05 1999

MSD:DAH:01756


Request for Approval to Use the Department of Transportation 6M Container to Ship Scrub Alloy Metal

Michael E. Wangler, Director, Package Certification and Transportation Safety Program

DIST.	1st	2nd
BACON, R.F.		
BENSUSSEN, B.J.		
BOENGLIN, L.A.M.		
BRALSFORD, M.D.		
BURDGE, J.		
CARD, R.G.		
DOSIGROVE, H.M.		
DRAWFORD, A.C.		
DE LONG, V.J.		
DERBY, S.		
DIETERLE, S.E.		
FERRERA, G.W.		
FERRERA, K.P.		
FALTON, J.C.	X	X
GERMAN, A.I.		
GILPIN, H.E.		
HARDING, W.A.		
HAROLD, W.P.		
HEDAM, T.G.		
HILL, J.A.		
LEWIS, M.R.		
MEZ, J.A.		
MIK, J.K.		
MORAN, A.M.		
PHILLIPS, F.J.		
ROLDSON, S.		
RODGERS, A.D.		
RUSOTTO, D.G.		
SHELTON, D.C.		
SNYDER, D.P.		
SPEARS, M.S.		
TOOR, N.R.		
WORHEIS, G.M.	X	X
Wright, K.	X	X
York, K.	X	X
York, K.	X	X
York, K.	X	X

The Rocky Flats Environmental Technology Site (Site) is currently storing approximately 490 kilograms of plutonium-bearing scrub alloy material and plans to begin transferring this material to Savannah River Site (SRS) in June 1999. The Site has determined that scrub alloy material meets the definition of solid plutonium metal alloy, as identified in 10CFR71.63(b)(2), and that the material is consistent with the approved shipping contents for the Department of Transportation 6M shipping container. The attached correspondence, from the Kaiser-Hill Company, L.L.C., (K-H), contains a description of the scrub alloy material and a request that the DOE approve the use of the 6M container for shipment of this material. I am requesting that you review the K-H correspondence and give consideration to approving the 6M container for shipment of scrub alloy material to SRS.

If you have any question or would like additional information, please contact me at (303) 966-4776 or Dave Hicks, of my staff, at (303) 966-3122.




Andrew J. McCormick
Nuclear Facilities Closure Group

Attachment

- cc w/Att:
- P. Bubar, EM-64, HQ
 - B. Smith, EM-64, HQ
 - A. Guevara, EM-64, HQ
 - R. Sena, AL, NMSPO
 - A. Gunter, SRO
 - G. Rudy, SRO
 - J. Anderson, WSRC
 - J. Falton, K-H

COR CONTROL	X	X
ADMIN RECORD		
PAIS/1336		

Reviewed for Addressee
Corres. Control RFP
1/3/99
By 

Cor Ltr. #
DOE ORDER # *None*

Michael S. Wangler
01756

2

bcc w/Att:

D. Hicks, MSD, RHPO

A. Lopez, DMTP, RFFO

L. Wilson, SAIC

~~██████████~~
R. Leonard, K-H

P. Clark, SSOC

K. Ryan, SSOC

T. Hasty, WSRC

CORRES CONTROL
OUTGOING LTR NO

DOE ORDER # None

J8-RF-06077



KAISER-HILL
COMPANY

December 22, 1998

98-RF-06077

David A. Hicks
Nuclear Facilities Closure Group
DOE, RFFO

REQUEST FOR APPROVAL TO USE THE DEPARTMENT OF TRANSPORTATION (DOT) 6M CONTAINER TO SHIP THE SCRUB ALLOY METAL - RHD-024-98

This purpose of this letter is to request approval to use the DOT 6M, 49CFR178.354, shipping container for packaging and shipping the scrub alloy metal buttons currently onsite. Specifically this approval is required pursuant to the DOE Order 460.1A, paragraph 4.a. (4)(c) 1, to wit "Each person who offers plutonium for transportation in excess of 20 Curies per package shall use a packaging approved by the Headquarters Certifying Official or the NRC."

Rocky Flats scrub alloy buttons are approximately 4 inch diameter "pucks" that resulted from processing of salt residues to recover plutonium during the production years. The salt residues were the result of processing to purify plutonium by removing americium and other impurities. The scrub alloy buttons vary in content, depending on the specific process that was used, but generally consist of some combination of aluminum, gallium, magnesium, calcium, or cerium alloyed with plutonium and americium. Aluminum is the most common alloying agent. These scrub alloy buttons meet the definition of solid plutonium metal alloy, as identified in 10CFR71.63(b)(2) and therefore, as indicated in this CFR citation, are exempt from the requirement for double containment.

The packaging configuration is shown in the attached sketch. The scrub alloy buttons are contained inside a 4.25-inch diameter by 4.88-inch tall steel inner can. This inner can has a crimp-sealed lid and is lined inside with a 0.050-inch thick tin alloy radiation shield. This inner can is placed inside a double thickness nylon bag. The nylon bag is then heat-sealed. The bagged inner can is placed inside a 4.5-inch diameter by 6.5-inch tall steel outer can. Then the outer can lid is crimp-sealed. One or two assembled outer cans are placed inside the DOT-2R (49CFR178.360) containment vessel with appropriate impact absorbers and retaining plates. The DOT-2R containment vessel is then packaged inside the DOT 6M shipping container. The DOT-2R containment vessels have been certified to have passed the load and leak tests that were performed to locate bad welds as specified by the Container Weld Advisory Committee.

All shipments will be made in compliance with the requirements of 49CFR173.417, including the limitations of the heat load being less than 10 watts and the plutonium mass being less than 4.5 kilograms per package.

There are approximately 490 kilograms of scrub alloy material to be shipped, with the initial shipment planned for July 1999. Approval for use of the DOT 6M packaging by the Headquarters Certifying Official, consistent with this plan, is hereby requested.

DISTRIBUTION	LTR	RNC
BACON, R.F.		
BENSUSSEN, S.J.		
BORMOLIN, A.M.		
BOYTER, N.C.		
BRAILSFORD, M.D.		
BRANCH, D.B.		
BRYNER, C.J.		
BURGE, L.F.		
CAMILLERI, T.J.		
CARD, R.G.		
CATLETT, D.		
COSEBROUGH, M.M.		
CRAWFORD, A.C.		
CROCKETT, G.		
FERRERA, D.W.		
FERRERA, K.P.		
FULTON, J.C.	X	X
GEIS, J.A.		
HARDING, W.A.		
HARROUN, W.P.		
HEDAHL, T.G.		
HILL, J.A.		
MARTINEZ, L.A.		
PARKER, A.		
PIZZUTO, V.M.		
SNYDER, D.P.		
SPEARS, M.S.		
YARSET, G.		
N.R.		
HEIS, G.M.	X	X
DART, R.H.		
GILMARTIN, J.T.		
LEONARD, R.C.	X	X
RICHEY, L.L.		
ZUREY, F.T.		
MOORE, G.D.		
FLOERKE, J.P.		
WALKER, R.		
ENTERLINE, G.		
LEHEW, J.G.		
RAAZ, D.		
CORRES CONT	X	X
ADMIN RECORD/DBO		
TRAFFIC		
PATS/T130G	X	X
CLASSIFICATION		
UCNI		
UNCLASSIFIED	X	X
CONFIDENTIAL		
SECRET		
AUTHORIZED CLASSIFIER		
SIGNATURE		
Date: 12/23/98		
IN REPLY TO RFP CC NO.:		
CON ITEM STATUS:		
PARTIAL/OPEN		
CLOSED		
LTR APPROVALS:		
ORIG & TYPIST INITIALS		
RHD:pas		
RFP-1325.01 (Rev. 10/96)		

Kaiser-Hill Company, L.L.C.
Courier Address: Rocky Flats Environmental Technology Site, State Hwy. 93 and Cactus, Rocky Flats, CO 80007 • 303.966.7000
Mailing Address: P.O. Box 464, Golden, Colorado 80402-0464

David H. Hicks
December 22, 1998
98-RF-06077
Page 2

Please contact me at (303) 966-4315 if you have any questions or need additional information.



R. H. Dart
SNM Shipping
Kaiser-Hill Company, L.L.C.

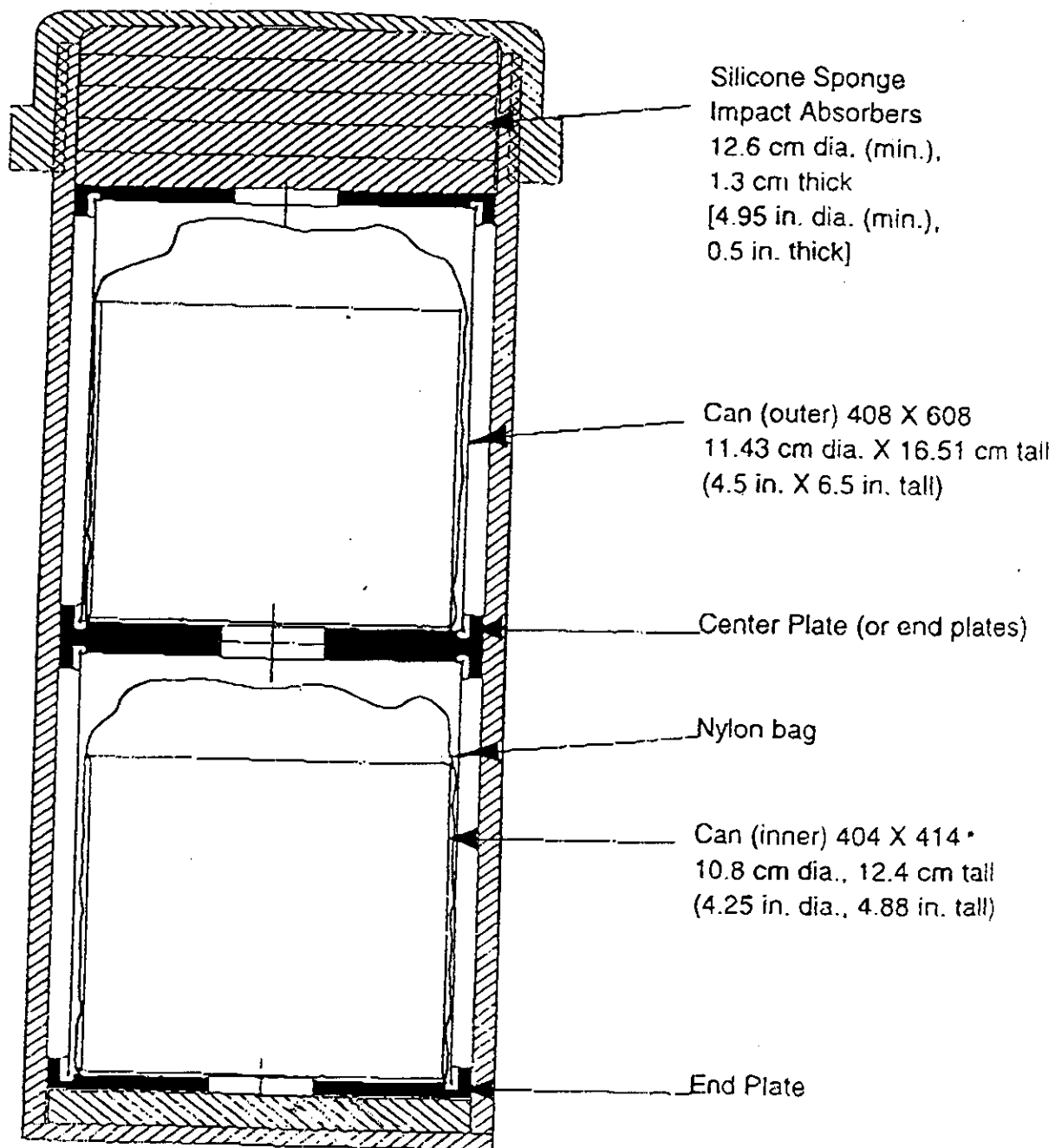
pas

Attachment:
As Stated

Orig. and 1 cc - D. A. Hicks

cc:
Matt McCormick
Larry Wilson

DOT Specification 2R Vessel--Scrub Alloy
 (Per 49 CFR 178.360)



*Inner can is lined with .050" thick internal shielding of tin alloy (92SN-7SB-1-Cu)