

**Department of Energy**  
Savannah River Operations Office  
P.O. Box A  
Aiken, South Carolina 29802

JUL 24 2013

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Tom Clements  
Friends of the Earth  
1112 Florence Street  
Columbia, SC 29201

Dear Mr. Clements:

SUBJECT: Freedom of Information Act (FOIA) Request, Headquarters HQ-2013-01245-F

On June 21, 2013, you submitted a FOIA request to the U.S. Department of Energy Headquarters (DOE-HQ) for "any memos, report, emails or other documents prepared or sent by DOE, especially by the Office of Environmental Management, discussing the cost of disposal of plutonium (Pu) at the Savannah River Site [SRS] in the Waste Isolation Pilot Plant [WIPP]. This would include costs for preparation for disposal at SRS." Your letter further referenced a value of \$100,000 per kilogram of SRS plutonium to dispose at the WIPP. On July 23, 2013, you narrowed the scope of your request for "correspondence that defines and outlines components that make up the \$100,000 per kilogram of Pu to WIPP."

In conjunction with DOE-HQ Office of Environmental Management, National Nuclear Security Administration, and DOE Savannah River Operations Office, the following documents are responsive to your July 23, 2013 narrowed FOIA request.

1. DOE-SR Memo, Patrick McGuire, Assistant Manager for Nuclear Material Stabilization Project to Edgardo C. Deleon, Director, Office of Nuclear Material Disposition (EM-22), HQ, Subject: Proposed Cost for Receipt and Disposition of GAP Plutonium Materials, dated June 12, 2012, with attached: Costs for Receipt and Processing GAP SNM for Disposition to WIPP; and
2. Savannah River Nuclear Solution Letter, Richard M. Sprague, Associate Laboratory Director, Nuclear Materials Programs to Patrick W. McGuire, Assistant Manager for Nuclear Material Stabilization Project; Re: Cost for Processing SNM for WIPP Disposition, dated May 3, 2012

You also asked for a fee waiver. Since there were minimal costs to process your FOIA request, DOE-SR is not addressing your request for a fee waiver.

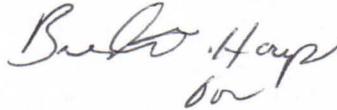
Mr. Tom Clements

2

JUL 24 2013

As Chief Counsel, DOE-SR, I am the authorizing official for documents responsive to your request. If you have any questions, please contact Ms. Pauline Conner at (803) 952-8134. The facsimile number for this office is (803) 952-8271.

Sincerely,

A handwritten signature in cursive script, appearing to read "Lucy M. Knowles".

Lucy M. Knowles  
Authorizing Official

Enclosures:  
As Stated

cc w/o encls:  
Joan Ogbazghi, DOE-HQ  
FOIA Officer, NNSA  
Allen Gunter, DOE-SR  
Patrick McGuire, DOE-SR

United States Government

Department of Energy (DOE)

Savannah River Operations Office (SR)

# Memorandum

DATE:

JUN 12 2012

REPLY TO

ATTN OF: AMNMSP (A. Gunter. (803) 208-3975)

SUBJECT: Proposed Cost for Receipt and Disposition of GAP Plutonium Materials

TO: Mr. Edgardo C. Deleon. Director, Office of Nuclear Material Disposition (EM-22), HQ

Future receipts of Special Nuclear Materials (SNM) under the Office of Global Threat Reduction will require disposition. Office of Environmental Management and SR need a cost basis for these disposition activities. Outlined in the Attachment is a cost basis that uses preparation of SNM for shipment to the Waste Isolation Pilot Plant (WIPP) as the basis. SR recommends using this cost basis to establish the nominal cost to be applied to foreign countries seeking SNM disposition through the Savannah River Site.

If there are any questions please contact me, or have your staff contact Allen Gunter at (803) 208-3975.



Patrick W. McGuire  
Assistant Manager for Nuclear  
Material Stabilization Project

AMNMSP:HAG:rsh

AMNMSP-12-0023

Attachment:

Costs for Receipt and Processing  
GAP SNM for Disposition to WIPP

cc w/atch:

Robert LaGrange, EM-22, HQ  
Randall Kaltreider, EM-22, HQ  
Hitesh Nigam (EM-33), HQ

Attachment: Memorandum, SUBJECT: Proposed Cost  
for Receipt and Disposition of GAP Plutonium Materials,  
dated JUN 12 2012

**Costs for Receipt and Processing GAP Special Nuclear Materials for Disposition to Waste  
Isolation Pilot Plant (WIPP)**

**K-Area**

- Receipts/Shipping: \$10,000 (assumes minimum is 10kgs fissile material)  
(90 hours 1 - First Line Supervisor, 5 - Operations)
- $\$10,000/10\text{kgs} = \$1,000/\text{kg}$  fissile material

**Total K-Area: \$1,000 / kg fissile material**

**H-Area**

- WIPP line annual incremental cost  $\$5,000,000/200\text{kgs} = \$25,000/\text{kg}$  fissile material  
Documented Safety Analysis and criticality analyses and may require different measurement regimes based on foreign obligations
- Maintain facility infrastructure: \$15,000/kg fissile material

**Total H-Area:  $\$25,000 + \$15,000 = \$40,000/\text{kg}$  fissile material**

**Pipe Overpack Containers (POC)**

- Assume loading eight POCs/kg fissile material or ~ 130 grams fissile material/POC
- $\$4,000/\text{POC} \times 8 = \$32,000/\text{kg}$

**Total Overpack: \$32,000/ kg fissile material**

**E-Area**

- WIPP Characterization  $\sim \$10,000,000/(42 \text{ weeks} \times 90 \text{ POCs/week}) = \$2,700/\text{POC}$
- E-Area Handling  $\sim \$2,000,000/3780 \text{ POCs} = \$530/\text{POC}$
- 1kg cost = (eight POCs x 530) +(eight POCs x \$2,700) = \$26,000/kg fissile material

**Total E-Area: \$26,000 / kg fissile material**

**Total Costs:  $\$1,000 + \$40,000 + \$32,000 + \$26,000 = \$99,000 / \text{kg}$  fissile material**



May 3, 2012

SRNL-L6000-2012-00018

Mr. Patrick W. McGuire, Assistant Manager  
Nuclear Material Stabilization Project  
Savannah River Operations Office  
P. O. Box A  
Aiken, SC 29802

Dear Mr. McGuire:

**COST FOR PROCESSING SNM FOR WIPP DISPOSITION**

Future receipts of SNM under the Office of Global Threat Reduction (NA-21) will require disposition. DOE-SR, EM and NA-21 management need a cost basis for disposition activities. Outlined below is a cost basis that uses preparation of SNM for shipment to the Waste Isolation Pilot Plant (WIPP) as the model. The total of \$84K/kg fissile can be used as the basis to establish the nominal cost to be applied to foreign countries seeking SNM disposition through SRS.

**K-Area**

- Receipts/Shipping: ~\$10K (assume minimum receipt is 10kg)  
(90 hrs 1-FLS, 1-RCO, 5-Ops)
- \$10K/10kg = \$1K/kg

**H-Area**

- WIPP line annual incremental cost \$5M/200kg = \$25K/kg fissile  
Documented Safety Analysis (DSA) and criticality analyses may be required if unique materials or packages are involved. Also, different measurement regimes may be required based on foreign obligations.

**Pipe Overpack Containers (POC)**

- Assume loading 8 POCs/kg fissile or ~130g/POC (assumes current procedure loading limits)
- ~\$4,000/POC x 8 = ~\$32,000/kg  
Estimate does not assume higher fissile loading with new drums expected within 2 years which will reduce costs.  
Estimate assumes fissile material loading (not bulk).

**E-Area:**

- WIPP Characterization ~\$10M / (42wks x 90 POCs/wk) = ~\$2,700/POC
- SRNS E-Area handling ~\$2M / 3780 POCs = ~\$530/POC
- 1kg cost = (8 POCs x \$530) + (8 POCs x \$2,700) = ~\$26K/kg fissile  
WIPP characterization costs are currently paid by WIPP.

Subtotal = \$1K + \$25K + \$32K + \$26K = \$84K/kg fissile

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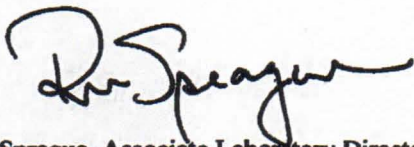
**SAVANNAH RIVER NUCLEAR SOLUTIONS, LLC**

Mr. Patrick W. McGuire, Assistant Manager  
SRNL-L6000-2012-00018  
Page 2 of 2  
May 3, 2012

The parameters for inclusion in this cost basis were provided by Allen Gunter of your staff.

Please call me (5-7269) or Bill Bates (8-3828) if you have any questions.

Sincerely,



Richard M. Sprague, Associate Laboratory Director  
Nuclear Materials Programs

/wfb

c: D. C. Moody, DOE-SR, 730-B  
J. Lovett, Jr., 730-B  
C. N. Smith, 730-B  
K. L. Hooker, 703-46A  
H. A. Gunter, 703-H  
J. P. Ray, 703-H  
D. J. Dearolph, NNSA-SRSO, 246-H  
T. A. Michalske, SRNL, 773-A  
D. A. Wilson, SRNS, 707-60B  
J. F. Dohse, 707-60B  
H. E. Bilson, 730-1B  
J. W. Temple, 730-1B  
D. E. Eyler, 773-A  
P. D. Hunt, 730-1B  
J. C. Grove, 730-4B

A. E. Burris, 773-A  
J. S. Griffin, 773-A  
J. E. Marra, 773-A  
L. C. Clevinger, 730-1B  
W. F. Bates, 703-H  
K. S. Fuller, 703-H  
DOE ECATS (file copy) 730-B