

From: Cynthia.Williams [REDACTED]
Sent: Thursday, October 07, 2010 6:34 PM
To: Dimarzio, John A.
Subject: Fw: Number of additional HLW canisters for SPD SEIS
Cynthia Williams

[REDACTED]

----- Forwarded by Cynthia Williams [REDACTED] on 10/07/2010 06:33 PM -----

From: Kenneth Fuller [REDACTED]
To: Clayton Shedrow [REDACTED]
Cc: Betsy Westover [REDACTED], Brent Blun [REDACTED], Cynthia Williams [REDACTED], Greg Burbage [REDACTED], Michael Chandler [REDACTED], Thomas Cowlan [REDACTED]
Date: 10/07/2010 12:57 PM
Subject: Re: Fw: Number of additional HLW canisters for SPD SEIS

I agree with 6 MT case and 20 or 48 additional canisters based on neutron poison. 2 MT case and 7 or 16 additional canisters sounds correct. 0.6 MT case and 6 additional canisters sounds high based other numbers. Should be 4.8 or 5 canisters at 8 canisters per MT of plutonium dispositioned, but I don't think one (1) canister in the conservative direction will matter in the long run of the thousands DWPF will make. Mike Chandler is in Oak Ridge this week and will be back on Monday. I would wait and let him comment since he is the one who provided me with the numbers to put in the 6 MT case.

From: Clayton Shedrow [REDACTED]
To: Kenneth Fuller [REDACTED], Michael Chandler [REDACTED], Betsy Westover [REDACTED], Greg Burbage [REDACTED]
Cc: Cynthia Williams [REDACTED], Brent Blun [REDACTED]
Date: 10/05/2010 03:51 PM
Subject: Fw: Number of additional HLW canisters for SPD SEIS

Ken, Mike

Could you guys please address this inquiry. If there's someone else I need to ping, please let me know.

Thanks.

C. Barry Shedrow

[REDACTED]

><(((0> ><(((0>`...`...`...`...`... ><(((0>
><(((0> ><(((0>
><(((0>

----- Forwarded by Clayton Shedrow [REDACTED] on 10/05/2010 03:48 PM -----

From: "Dimarzio, John A." [REDACTED]
 To: <Cynthia.Williams [REDACTED]>
 Cc: <sachiko-w.mcalhany@nnsa.srs.gov>, <virginia.kay [REDACTED]>, <clayton.shedrow [REDACTED]>, "Roles, Gary W." [REDACTED]
 "Eichner, John M." [REDACTED], "Gorden, Milton E." [REDACTED]
 Date: 10/05/2010 03:13 PM
 Subject: FW: Number of additional HLW canisters for SPD SEIS

The data call responses did not clearly list the numbers of additional DWPF canisters that would be generated under each alternative. Please review the assumptions we have made (below), and make any necessary corrections.

Sorry for all these requests!!!

...John

From: Roles, Gary W.
Sent: Wednesday, September 29, 2010 10:48 AM
To: Dimarzio, John A.; Eichner, John M.; Taylor, Ellen L.
Cc: Owens, Kirk W.; Crede, Suzanne C.
Subject: Number of additional HLW canisters for SPD SEIS

This is my estimate based on data received to date.

Alternative or Option	Total Number of Canisters	Remarks
All alternatives – dissolution of 0.6 MT of Pu assuming low Pu loading in the final waste form.	6 additional canisters	Assume loading of ~0.9 kg/cubic meter. A 2009 IA (DOE 2009) estimated up to 4 additional canisters to dispose of 0.42 MT of Pu materials. Scaling to 0.6 MT indicates up to 6 additional canisters.
MOX Fuel and WIPP and H-Canyon Alternatives – dissolution of 6 MT of Pu assuming higher Pu loading in the final waste form.	20 additional canisters if gadolinium poisoning is credited and 48 additional canisters if gadolinium poisoning is not credited.	Assume loading of up to ~5.4 kg/cubic meter. Estimate is from a 2010 data call response (see H-Canyon Response-090310, 2010 SPD SEIS Disposition H-Canyon Data Call.pdf).
MOX Fuel and WIPP and H-Canyon Alternatives – dissolution of 2 MT of Pu assuming higher Pu loading in the final waste form.	7 additional canisters if gadolinium poisoning is credited and 16 additional canisters if gadolinium poisoning is not credited.	Assume 1/3 of projections for dissolution of 6 MT of surplus Pu and roundup as needed.
Immobilization Alternative – disposition of 6 MT of surplus Pu by the can-in-canister process.	44 additional canisters.	Assume 95 additional canisters to disposition 13 MT of surplus Pu (2008 draft SPD SEIS). Scale to 6 MT: (6/13) *95 = 43.8 = ~44 additional canisters.

For those situations where we may be dealing with a range of canisters, I suspect that we can assume whatever is conservative depending on the situation.

G.W. Roles | SAIC

Nuclear Engineer | ILPSG

[Redacted]

Science Applications International Corporation

[Redacted]

www.saic.com

Energy | Environment | National Security | Health | Critical Infrastructure

Please consider the environment before printing this email.

[Redacted]