

HLW EIS Web Comments

HLW & FD

EIS PROJECT - AR/PF
Control # DC-17



From: HLWFDEIS Web Site
Sent: Thursday, February 10, 2000 3:05 PM
To: web@jason.com
Cc: web_archive@jason.com
Subject: HLW EIS Web Comment

Auto-Assigned Comment Number: 6

Name: Dr Lee Plansky
Affiliation: INEEL - LLW Program/RWMC
Address1: 165 East 14th Street

Address2:

City, State Zip: Idaho Falls, ID 83404

Telephone: 208-526-2788

Date Entered: {ts '2000-02-10 15:04:50'}

Comment:

- |X.A(8) 1. [Would you consider please to add a table of co-located facilities and support equipment by alternative(s).]
|T-2. 2. [Section 5.2.13.4 has 1/2 of the 2nd Order topic headings missing - eg: product waste..... through process waste.
|Y.A(8) The individual waste types and whether they are product or process waste is not clear.]
|T-3. 3. [NGLW --- need a clear definition early on in each of the volumes Summary ---> appendices AND GLOSSARY. It is not clearly defined for the public reader and is not present in the Glossary.]

\\(3) Thanks

D-23

DOE/EIS-0287

HLW EIS Web Comments

HLW & FD

EIS PROJECT - AR/PF
Control # DC-18



From: HLWFDEIS Web Site
Sent: Friday, February 11, 2000 4:09 PM
To: web@jason.com
Cc: web_archive@jason.com
Subject: HLW EIS Web Comment

Name: Janet Sluszka
Affiliation:
Address1: 3225 Teton Pines Drive
Address2:
City, State Zip: Wilson, WY 83014
Telephone: 307 734-5257
Date Entered: {ts '2000-02-11 16:08:58'}

Comment:

- |P| Please do not rush into making a decision as to how to treat the high-level waste at INEEL. Please consider a number of methods and follow-through with them all to see which method is the safest for people and the environment. Please do not make the same mistake you did with the proposed hazardous and nuclear waste incinerator and lock yourselves into a time frame and contract without taking the time to consider the safest alternatives. There is no reason to rush into treating these wastes if the proper technology is not yet there. Thank you for having the health of people and the health of the environment as your utmost concern.]

- New Information -

Idaho HLW & FD EIS

Document 19, Jan Nissl, Boise, ID
Page 1 of 1

HLW EIS Web Comments		HLW & FD	EIS PROJECT -AR/PF
From:	HLWFDEIS Web Site		Control # DC-19
Sent:	Monday, February 14, 2000 9:12 AM		
To:	web@jason.com		
Cc:	web_archive@jason.com		
Subject:	HLW EIS Web Comment		
<p>Name: Jan Nissl Affiliation: Address1: 1115 E. State Address2: City, State Zip: Boise, Id 83712 Telephone: 208-384-9139 Date Entered: (ts '2000-02-14 09:11:47') (4-1) Comment: (II.6) [Treatment should proceed strictly out of concern for environmental protection.] (Don't use unproven technology. "Separation presents three major problems: (4-2) a. Creates more waste streams to manage II.3 (i) b. Produces greater waste volumes compared to non-separations c. Poses tremendous technical uncertainties. These technologies have never been demonstrated to work on an industrial scale.] I4.3 [Treat the calcine and liquid wastes independently. These wastes have different properties and therefore require different approaches. This was also recommended in a recent report from the National Academy of Sciences.] I4.4 [Coordinate treatment so as to address all forms of contamination such as groundwater, soil, facilities and the High-level V11.B(i)waste.] thank you</p>			



Document 20, Donald W. Rhodes, Idaho Falls, ID
Page 1 of 2

		HLW & FD	EIS PROJECT -AR/PF
		Control # DC-20	
		Idaho Falls, Idaho February 10, 2000	
		<p>Mr. Thomas L. Wichmann U.S. Dept. of Energy Idaho Falls, Idaho 83401</p> <p>Dear Mr. Wichmann:</p> <p>I am sending you my comments on the High Level Waste Treatment options that appeared in the Post Register recently. My comments are of a technical nature based on my many years experience at the Chemical Processing Plant, where I was in charge of developing the chemistry for the calcination process for many years as well as other related waste treatment processes. These comments are not presented in any logical sequence, but are given as they occur to me while preparing this letter.</p> <p>20-1 (I) 1. Dissolving the calcine seems to me to border on the ridiculous. Many millions of dollars and thousands of man hours were spent converting the high level waste to the present granular form. I believe that both Hanford and Savannah River would be very happy to have their high level waste in such an innocuous form. In actual practice, dissolving the calcine is not an easy task. Even the calcine from the aluminum nitrate waste would require some sort of fusion process to dissolve the alpha alumina that is small in total amount, but is distributed throughout the calcine. Extracting the radionuclides from the liquid after dissolution is not a simple process. Many attempts were made to do this before the waste was calcined, with little success. The end result was a number of wastes, large in volume and containing different levels of radionuclides that would require further treatment for disposal.</p> <p>20-2 (II.D.2.c.(3)) 2. Although a glass prepared from the calcine is probably a desirable product, converting the calcine to a glass is quite difficult. The process requires very high temperatures, and is dependent on the chemical composition of the calcine. The CPP has four different types of calcine: (1) calcine from calcination of aluminum nitrate waste, (2) calcine from the calcination of ammonium nitrate waste, (3) calcine from the calcination of zirconium fluoride waste, and (4) some calcine from the calcination of intermediate or second cycle waste. I don't believe that records can clearly separate these wastes as to location in the bins. Each of these wastes would probably require some modification for any solidification process that was used. In terms of the contained radionuclides in the waste, the Ru-106, Ce-144, and Zr-Nb-95 would probably be largely decayed. The Sr-90 would still be there, but would probably not cause a migration problem during the glassification process. The Cs-137, on the other hand, would largely be released and have to be collected during the glassification process. In fact, migration of Cs-137 has been occurring during storage in the bins because of the heat generated by the decay of fission products. In addition to these problems, the energy requirements for glasification will be very high, and the materials of construction that will be needed for the equipment to do the glassification will be very expensive.</p> <p>20-3 (II.D.4.(1)) 3. There is another potential process to immobilize and protect the calcine, that was not included in the options, that I believe could be used. It would be much less costly than any of the other</p>	

options presented, and provide a high level of safety during storage. This process consists of imbedding the calcine in a metal matrix which is itself contained within a metal cylinder. The metal matrix that I suggest is aluminum. This was done on a laboratory scale as early as 1969, and was reported in IN-1322. The author is myself. The laboratory study was done with nonradioactive calcine. A stainless tube was filled with granular calcine. Molten aluminum was then drawn up through the calcine using a vacuum, and an inert atmosphere to prevent aluminum oxide from forming. The metal is allowed to extend beyond the calcine at both ends of the tube, thus forming a sealed system. In order for the radionuclides to be leached from the calcine, the tube would have to be penetrated by corrosion. Even then, the leaching would be very slow because of the aluminum matrix that protects the calcine particles. The tubing containing the calcine could be any thickness desired to provide the desired long-term protection. If really, really long term protection were desired, the tube containing the calcine could be placed within a second stainless steel or ceramic cylinder and a second pouring of metal could be made to seal the tube containing the calcine within the secondary container. Long term stability could easily be provided by the proper choice of containers. Some of the advantages of this process over the other proposed processes are as follows:

1. This process can be done at relatively low temperatures (aluminum m.p. 650 degrees C), compared to a glassification process.
2. The energy requirements are low compared to a glassification process.
3. Migration of Cs-137 would be negligible at the low temperatures required to melt aluminum.
4. The cost of materials would be relatively low, because ordinary stainless steel and/or ceramic tubing could be used.
5. Argon, which is reasonable in cost, could be used to provide the inert atmosphere.
6. Leaching of radionuclides could be zero for as long as desired by choosing the right containment materials.
7. Handling the stainless steel or ceramics tubes could be done with conventional equipment.
8. The tubes containing the calcine could be transported and stored easily.
9. The aluminum metal and steel container would reduce the external radiation significantly.
10. The process is basically not affected by the chemical composition of the calcine.
11. End caps can be welded on the ends of the tube, thus making it a totally sealed system.
12. The ss tubing would totally shield out the beta radiation, and attenuate somewhat the gamma.
13. The metal matrix provides good heat transfer for any decay heat.

If you have any questions or if I can be of any help, I can be reached at 652 Brentwood Circle, Idaho Falls, Idaho 83402, phone, 522-8673.

Very truly yours,

D. W. Rhodes

D. W. Rhodes

D-25

DOE/EIS-0287



HLW & FD
Idaho High-level Waste and Facilities Disposition
Draft Environmental Impact Statement
U.S. Department of Energy Idaho Operations Office

EIS PROJECT -AR/PF
Control # DC-21

Written Comment Form
Must be postmarked or dated by March 20, 2000

- I don't know enough about the issues discussed at this meeting, but this seems like a complicated ordeal. All I know is
21-1
111. E(3) that [I prefer storing the waste in the safest possible way
live not harmful to the public, workers, or environment), or to move
the waste elsewhere.] [It don't think cost should matter. Feeling
21-3
X(4) safe doesn't have a dollar value]
- 21-4
11X.B(3) [The high schools in the area should have been
notified, because the Times News cannot be counted on as
a source of information - this meeting was reported to
be about nuclear reactors. Basically, the next generation
needs to understand these issues.]
- 21-5
11X.C(3) [The registration staff was not only helpful, but friendly -
a good change of pace in this area! Most public
hearings have no staff at all, or are there only to get
people to pick up informative papers.]

Written comment forms may be faxed to:

Thomas L. Wichmann
EIS Document Manager
208-526-1184

Written comment forms may be mailed to:

Thomas L. Wichmann
EIS Document Manager
850 Energy Drive, MS 1108
Idaho Falls, Idaho 83401-1563

Or send comments via the internet at: <http://www.jason.com/hlwfeis>

Document 22, Char Roth, Ketchum, ID
Page 1 of 1

22-1
II A(2)

EIS PROJECT -ARPF
Control # DC-22 Feb. 13, 2000

Dear Mr. Wichmann, HLW & FD Box 293
Ketchum, Id.

I am opposed to the draft plan for treating & disposing of radioactive waste at sites throughout the west, including the INEEL in Idaho Falls

I am concerned about the safety of workers who could be exposed to the toxic waste as well as the possible contamination of the Snake River Plain Aquifer.

Impacts to Idaho depend on which waste processing facility disposition alternatives DOE selects.

The Advanced Mixed Waste Treatment Facility has not been proven to protect our Snake environment and human health.

Please consider the sanctity of all living things when determining disposal & treatment of poisons. Char Roth

22-2
VII(B)(4)

22-3
VIII.B(4)

Document 23, Department of Health & Human Services (Kenneth W. Holt), Atlanta, GA
Page 1 of 21

23-1
IX.3(2)

EIS PROJECT -ARPF
Control # DC-23 HLW & FD
Public Health Service

DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Disease Control and Prevention (CDC)
Atlanta GA 30341-3724
February 7, 2000

RECEIVED
FEB 16 2000

Thomas L. Wichmann, Document Manager
U.S. Department of Energy, Idaho Operations Office
850 Energy Drive, MS 1108
Idaho Falls, Idaho 83401-1563
Attention: Public Comment: Idaho HLW & FD EIS

Dear Mr. Wichmann:

We have completed our review of the Draft Environmental Impact Statement (DEIS) for Idaho High-Level Waste and Facilities Disposition. We are responding on behalf of the U.S. Public Health Service, Department of Health and Human Services (DHHS). This letter serves as a response to your letters of request sent to Dr. Jeffery Koplan, Director, Centers for Disease Control and Prevention (CDC), to Mr. Richard Green, Environment and Safety Officer, (DHHS), and to Mr. Kenneth W. Holt, National Center for Environmental Health, CDC. [We request that future correspondence related to the National Environmental Policy Act (NEPA), specifically requests for review of environmental impact statements, be sent only to Mr. Holt for coordination at the following address:

Kenneth W. Holt, MSEH
Centers for Disease Control & Prevention
National Center for Environmental Health
Emergency & Environmental Health Services Division (F16)
4770 Buford Hwy. NE
Atlanta, GA 30341-3724]

23-2
VIII.e(1)

Technical assistance for this review was provided by Mr. Charles M. Wood, Radiation Studies Branch, Division of Environmental Hazards and Health Effects, National Center for Environmental Health, CDC. Please consider the following comment provided by Mr. Wood: "The Defense Nuclear Facilities Safety Board audited the Department of Energy program for HEPA filters and cited several serious deficiencies. I have attached a copy of this audit for your information. One of the more serious deficiencies is that DOE has shut down its facility for quality assurance testing of new filters. All the machinery is now at Lawrence Livermore National Laboratory, but there is no funding to assemble the equipment and put it back into operation. The proposed facilities in the DEIS will depend on HEPA filters to meet emissions standards. For new facilities DOE should address the deficiencies cited in the DNFSB audit. How do they propose to do that?"

- New Information -