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Subject:

WEAPONS-USABLE MAT'L DPEIS

COMMENTS ON STORAGE AND DISPOSITION OF WEAPONS-USABLE FISSILE MATERIALS DRAFT DPEIS- 21/96-04GF

This comment document (#21/96-04GF) is the companion document referred to in Comment 13 of the Coalition 21 comment document (#21/96-03RK). The comments herein are based on a limited review; they should be considered symptomatic of more pervasive shortcomings.

GENERAL COMMENTS:

A. The Summary does not represent a thoughtful summary of the entire PEIS. It is overburdend with marginally useful details about environmental impact at the expense of better description of the alternatives and of the assumptions related to the various candidate sites (cf specific comments S-4, S-12a&b, S-18b, S-22).

B. The environmental information in the Summary is not only too detailed; it is unnecessarily repetitive leading to internal inconsistencies (comments S-17, S-18a, S-19, S-20a, S-21, S-23b, S-37b, S-46, S-59, S-122). 1/09.00.08

C. Meaningful comparisons that would allow decisions to be made on environmental factors are often lacking; some comparisons that are included are meaningless.. The only comparisons that are really clear are the obvious ones, i. e. alternatives using existing facilities (ANL-W Electrometallurgical or Existing LWR) have less impact than comparable alternatives involving new facilities (comments S-26b, S-28; S-47a, b&d; S-48a, b&c; S-49b, S-53).

SPECIFIC COMMENTS:

These comments are keyed to the page number of the Summary. Multiple comments on a page are identified by a, b etc. Location on the page is keyed to the paragraph; a partial paragraph at the top of the page is considered the 1st paragraph.

S-3: By its shading, Figure S-1 calls attention only to the one material category not 2/16.00.00

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09 00 08 Comment Number 1

Based on comments received, the Summary of the Draft PEIS was revised. All revisions made appear in the Summary of the Final PEIS.

16 00 00 Comment Number 2

The shading in Figure S–1 is designed for clarity and readability. The figure itself is designed only to show the relationship between the various types of fissile material categories. The figure has been modified for the Final PEIS and Summary.

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covered by either PEIS. It should be used as the basis for text explaining what is meant by each block on the figure.	2/16.00.00 cont.
S-4, 1st para.: Here would be the place to explain that the environmental analysis is based on 50t of Pu and to justify selection of that value.	3/01.00.00
S-5, last para.: Figure S-2 appears five pages after its first mention; too far back.	
S-7(a): 1st para.: The concept of grouping the alternatives into categories is good but is not carried through consistently (see S-37a).	
S-7b: The text after the three boxes does not relate to the last previous subheading on page S-6.	
S-12a: Better coordination between Figure S-2 and Tables S-1, S-2 and S-3 is necessary. Table S-1 does provide appropriate additional detail on Upgrade. Tables S-2 and S-3 should show where at each site the new facilities would be built. Accompanying text should justify these selections.	4/16.00.00
S-12b: The significance of the subalternative for Consolidation and Collocation Alternatives is not clear, since this subalternative is not further identified in subsequent bar graphs (Figures S-4 etc.) or accompanying text.	
S-17: The difference in emphasis (if any) between the section starting on this page and going to page S-36 and the section starting on page S-47 is not clear. The latter section, particularly since it explains the various figures, is much better. The former section seems to give unnecessary and duplicative detail, that would be better captured in a couple of carefully thought-out charts.	1/09.00.08 cont.
S-18a, 7th para: Air quality discussion not adequately related to corresponding text on page S-72. Also should make it clear that the identified sites are the only ones to which this alternative applies.	5/09.03.08
S-18b, 7th para: Comment on cultural/paleontological resources would not apply if the location at INEL were inside an existing fenced area which has been previously disturbed. From a cost and future environmental cleanup standpoint, such a location would surely be selected. This comment applies repeatedly throughout this section.	6/09.07.03
S-19, 3rd para: Page S-91 shows the impact on local road to be at Pantex not at INEL.	7/09.08.08
S-20a, 2nd para: Text on page S-88 indicates an endangered-species impact at Hanford as well.	8/09.06.01
S-20b, 2nd para. Would there be this adverse impact on waste management at INEL if the facility were built inside an existing fenced area with an established infrastructure.	9/09.11.03
S-21: Attachment A does not address Phaseout.	4/16.00.00 cont.
S-22, 5th para: Explain earlier which forms of Pu do not lend themselves to MOX fuel fabrication. Relate to 50/50 split on page S-50 (combination of alternatives) and justify selection of that split.	10/06.01.08
S-23a: Provide distinctive shadings for INEL and NTS bargraphs. Leaving it blank (as	1/09.00.08 cont.

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01 00 00 **Comment Number 3**

Comment noted. In preparing the PEIS, DOE assumed the disposition of approximately 50 t (55 tons) of Pu. Currently, DOE's inventory of Pu for disposition consists of 38.2 t (42.1 tons) of material declared surplus by the President and identified in the Secretary of Energy's Openness Initiative in early 1996, and an additional 14.5 t (15.95 tons) of reactor-grade and fuel-grade Pu that is excess to U.S. defense needs, but which has not yet been declared surplus by the President. The PEIS identifies annual impacts based on throughput requirements identified for each technology. Therefore, if amounts greater than 50 t (55 tons) are eventually declared surplus, annual impacts would be the same but would occur over a longer period of time.

16 00 00 **Comment Number 4**

Comment noted. Based on comments received, the Summary has been revised for the Final PEIS.

09 03 08 **Comment Number 5**

In response to the comment, text was added to the Upgrade Alternative section of the Summary to clarify that the alternative does not apply to NTS, RFETS, or LANL. Text was also added to the air quality discussion of the Upgrade Alternative section in the Summary to clarify that all sites are expected to comply with the ambient air quality standards and guidelines.

09 07 03 **Comment Number 6**

The commentor is correct that construction on previously disturbed land would probably not affect resources that are potentially eligible for placement on the National Register of Historic Places (NRHP). However, other cultural resources could be affected by new ground disturbance. The Summary of the Final PEIS has been revised (Sections S.5 and S.8) to provide a better description of the approach to the environmental impact analysis and the comparison of alternatives.

for NTS) suggests less impact than others; filling it in solid (as for INEL) suggest more impact. 1/09.00.08 cont.

S-23b, Figure S-5: Explain why RFETS material causes a much greater employment impact at Pantex than at other facilities; and why employment impact at ORR is more without RFETS material than with it. How many other such discrepancies exist that I have not identified? 11/09.08.08

S-26a: Change Upgrade bargraphs from solid color to shading. 1/09.00.08 cont.

S-26b: Liquid transuranic waste is listed as a key long-term impact on page S-22. Less than one 55 gal. drum per year (and the same for all sites) does not seem to warrant a separate Figure S-11 in the Summary. INEL is dealing with about 130,000 cu meters of TRU waste. 12/09.11.08

S-28: Decline of local road service is not mentioned in corresponding text on page S-140. The whole subject of service decline seems to be overblown for the INEL. A site that (a) has lost 2600 jobs over the last few years, (b) has recently opened an overpass/merge at its main entrance junction, (c) whose main access road was once at 70mph and has just been raised to 65mph and (d) most of whose employees ride buses, is not likely to have a new local traffic problem. 13/09.08.08

S-37a: The top three bargraph legends on Figures S-14 to S-31 should have the word "Category" instead of "Alternative" associated with them. For the fourth legend Facility should be plural. 4/16.00.00 cont.

S-37b: The LWR Category values in both Figures S-14 and S-15 are different from the corresponding Figures in Section 2.5.2, i.e. -1 and -2. 14/06.00.08

S-46, 5th para: The rank order of cumulative impacts differs from the text in the previous two paragraphs. Doesn't any discussion of cumulative impacts have to include the effects of programs listed in para. 2? If so, what is the distinction between the listings in para. 5 and the statement in para 4 that INEL is among the least vulnerable? 15/09.00.08

S-47a, 2nd para: What is the distinction between "would be vulnerable", "could be vulnerable" (used in other paragraphs), and "could be susceptible"?

S-47b, 4th para: What are the "key discriminators"? A number of environmental impacts more important than visual resources are not represented graphically.

S47c, 7th para: The text for the Comparison of Alternatives section that starts on this page appears to be verbatim from Section 2.5 of Volume I. With the exception of Figures S-21 to S-25, the figures are the same, but in this summary the references to the individual figures have been removed and put far further front, away from the explanatory text. Figure S-4 should be referenced at the end of this paragraph and other figures should be referenced in subsequent paragaphs. 1/09.00.08 cont.

S-47d, 8th para: Figure S-5 should be referenced her. in line 5. For a true comparison of alternatives, the bar graphs (and accompanying text) for Upgrade with RFETS 16/02.04.08

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09 08 08 Comment Number 7

The Summary table in the Draft PEIS was incorrect. Construction of the consolidated facility could cause a decrease in level of service at both Pantex and INEL. The Final PEIS reflects the correction.

09 06 01 Comment Number 8

Endangered species at Hanford may be impacted by implementation of this alternative. The text was revised to reflect potential impacts.

09 11 03 Comment Number 9

Language regarding adverse impacts has been modified in the PEIS based on comments received. The Final PEIS provides the necessary information to describe the impacts for the resources analyzed. The Summary of the Final PEIS has been revised (Sections S.5 and S.8) to provide a better description of the approach to the environmental impact analysis and the comparison of alternatives.

06 01 08 Comment Number 10

Some of the Pu material for disposition is relatively pure (such as metal in weapons pits) and requires little purification to be usable in MOX fuel. However, some Pu material is mixed with contaminants (such as Pu in halide salts) and requires a considerable amount of purification before it can be used in MOX fuel. For the purpose of analysis, approximately 70 percent of the Pu material does not require extensive purification, and, thus, lends itself for use as MOX fuel. The Final PEIS discusses the 70-percent split of materials in Sections 1.6 and 4.6.

09 08 08 Comment Number 11

The number of workers required to operate the Pantex facility with RFETS material would be the same as without the RFETS material (a total of 90 workers would be used in both cases). The numbers used in the Draft PEIS have been updated, and the new numbers and analyses were incorporated into Section 4.2.4.8 of the Final PEIS.

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material should show the total employment impact on all six sites (the one that accepts the RFETS material plus the other five that do not). In other words, is the total employment impact greater if Pantex accepts the RFETS material than if ORR does?	16/02.04.08 cont.
S-48a, 4th para: Fatality values reported to the third significant figure are not defensible. Suggest using approximations that say they are (a) likely to be essentially zero for the 0.077 calculated value and (b) zero to one or two for the higher values. This approach worked best in the INEL EIS.	17/09.09.08
S-48b: What purpose does this comparison for the Upgrade alternative serve the decision maker? Does he have the option to upgrade some of the facilities and not others? If so, that option should be described. The reader and the decision maker will also have difficulty verifying the "least affected "claims because the corresponding Figures (S-9 to S-13) show only the highest impact of each option. In other words the figures do not show the NTS P-tunnel option under Collocation. Finally, does this generalized comparison lump apples and oranges (i. e. positive and negative impacts, and equating land use in some fashion with waste generated)?	18/02.00.08
S-48c, para 7&8 and S-49a, para 2,4,5 etc: The most important comparisons to be shown are between the Existing LWR and the other Disposition Categories because this is the choice most likely to confront the decision maker. Many of the comparisons that show the Evolutionary LWR to have the highest impact of any alternative are only marginally useful and detract from a clear and succinct comparison of likely alternatives.	19/01.00.00
S-49a, 5th para: This paragraph should be expanded to include the parameters in Figures S-21 to S-25 and should reference all Figures from S-19 to S-31.	1/09.00.08 cont.
S-49b, 6th para: Comment S-48a applies here as well.	17/09.09.08 cont.
S-53: Consistent with the previous comment, Figure S-35 is a meaningless comparison. The note shown on the figure should appear in the text and the Figure should be eliminated.	1/09.00.08 cont.
S-59 and S-122: Attachments A and B should be eliminated; they appear in Section 2.5 and are much too detailed, repetitive, and often conflicting to be in a Summary.	
S-66: Dividing 220 person-rem by 30 millirem suggests that 7300 site workers would be affected by No Action on a long-term INEL storage facility that for most workers would be at least several miles away If the facility were upgraded (page S-77), the average dose would increase significantly but only 64 workers would be affected. Is this reasonable?	20/09.09.08
S-82: First entry under ORR: "does" not "dose"	
S-141: First two columns, 2nd entry: "then" not "then"	21/16.00.00
S-152 & S-153: Most of the numerical values under Waste Management are annual rates and should be so indicated.	22/09.11.08

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The storage options for ORR involve the storage of HEU not Pu. Hence, storage of RFETS material is not among the Proposed Alternatives for ORR.

09 11 08 Comment Number 12

Based on comments received, the Summary was revised. All revisions made are in the Summary of the Final PEIS. Specific comments on the amounts of waste being generated were addressed accordingly.

09 08 08 Comment Number 13

The level of service on some of the local roads at INEL would likely be reduced during construction and/or operation of several of the storage and disposition alternatives. Similar impacts would be expected at other DOE sites. For the PEIS, the local transportation impacts for each of the sites were modeled using the latest available traffic estimates and the number of additional workers expected to use roads into each site. The revisions made in the Final PEIS are also reflected in the Summary.

06 00 08 Comment Number 14

Based on comments received, the Summary of the Final PEIS has been revised and Figures S–14 through S–31 have been deleted because of the confusion they caused; incorrect values were mistakenly presented for some of the LWR alternatives shown in the comparison bar charts for operational land use and maximum direct employment. Sections S.5 and S.8 provide a narrative description of the approach to the environmental impact analysis and the comparison of alternatives.

09 00 08 Comment Number 15

The Department of Energy did not intend to give the perception that the sites were ranked. Specifics on how other DOE programs could affect the cumulative impacts associated with the proposed storage and disposition alternatives is addressed in Section 4.7 of the Final PEIS. The cumulative impact discussion presented in the Summary has been revised to better reflect the analysis in the Final PEIS.

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Other: ROI for INEL is five counties in this PEIS, six counties in INEL WM EIS, and seven counties in WM PEIS. Numerical differences are small, but what a waste of effort not to have a single consistant ROI for INEL! | 23/09.08.03

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02 04 08 **Comment Number 16**

Typically, EISs only assess employment impacts at the local and regional levels for a given action. The Draft PEIS and Summary presented projected changes in employment that could occur at each DOE site from storage upgrade and other storage alternatives. This information provides the decisionmaker with the ability to compare a range of alternative storage actions at each of the individual DOE sites. Based on comments received, the Draft PEIS Summary was revised. Revisions made in the Final PEIS are also reflected in the Summary.

09 09 08 **Comment Number 17**

In order to provide information to the public and decisionmakers, the human health risks and latent fatal cancers were presented in the Draft PEIS even though they are very small numbers. To aid public understanding of the risk numbers, an explanation of how to interpret these risk numbers is also included in Section M.5. Due to the inherent uncertainties associated with risk assessment, the parameters related to human health risk assessment should be kept to two significant digits. Risk numbers more than two significant digits were modified in Chapter 4 of the Final PEIS. Presenting more significant digits does not affect the decisionmaking process, but may prevent the artificial grouping of numbers that may disguise significant discriminators.

02 00 08 **Comment Number 18**

The Preferred Alternative included in the Final PEIS is a combination of storage alternatives. These are covered by the environmental analyses included in the Final PEIS. The impacts shown in the Summary do not lump "apples and oranges" or positive and negative effects on land use with waste.

01 00 00 Comment Number 19

The Department of Energy did not intend to give the perception that the sites were ranked. The Final PEIS provides the necessary information to describe the impacts for the resources analyzed. The comparison of alternatives bar charts were removed, and the comparisons are now addressed in the text. It is up to the decisionmaker to determine which impacts are discriminators among sites.

09 09 08 Comment Number 20

The radiation dose for workers for the No Action Alternative was estimated for the total workforce on site. For the proposed storage alternatives other than No Action, the dose for the workers was analyzed for workers involved only in the proposed new actions. The radiation dose from No Action is the baseline for the dose of the other Proposed Actions. The calculated dose for each Proposed Alternative is presented as the incremental dose over the No Action Alternative.

16 00 00 Comment Number 21

The commentor is correct, and appropriate changes were made to the text.

09 11 08 Comment Number 22

Impacts reported in Sections 4.2 and 4.3 tables of the PEIS are clearly marked for annual values, or total lifetime of each campaign, for each of the storage and disposition alternatives. Impacts reported in Sections 2.5, 4.6, and the Summary of the PEIS are also clearly marked for annual values or for the life of each alternative.

09 08 03 Comment Number 23

The PEIS defines the region of influence (ROI) as those counties where approximately 90 percent of current DOE and/or contractor employees reside. This definition was applied consistently across all of the sites evaluated in the PEIS. The other documents used slightly different criteria, which accounts for the differences in ROI counties identified in respective documents.