



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10 HANFORD PROJECT OFFICE  
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0060465

September 25, 2003

Mr. Paul J. Valcich  
U.S. Department of Energy  
PO Box 550, A6-39  
Richland, WA 99352

RECEIVED  
SEP 30 2003  
EDMC

Re: Steamlined Engineering Evaluation/Cost Analysis

Dear Mr. Valcich:

The U.S. Environmental Protection Agency (EPA) has reviewed the preliminary draft document DOE/RL-2000-06, Rev. 0 (including Appendix A covering the specifics for the 224-B facility) entitled, "Engineering Evaluation/Cost Analysis for Central Plateau Streamlined Decommissioning Profile Facilities." Our comments on this document, which include issues raised by the Washington State Department of Ecology, are enclosed.

We recognize that recent discussions have led to changes in the proposed approach of a streamlined or presumptive engineering evaluation/cost analysis (EE/CA), including the decision to have a stand-alone EE/CA for 224-B. However, for consistency in documentation within the administrative record, we officially transmit our comments on the aforementioned draft document.

The EPA looks forward to working with the U.S. Department of Energy to forward the cause of decontamination and demolition of 200 Area facilities. If you have any questions, please call me at 509 376-8665.

Sincerely,

Craig Cameron  
200 Area Project Manager

Enclosure

cc: Theresa Bergman, FHI  
Rick Bond, Ecology  
Greta Davis, Ecology  
Administrative Record: 224-B Plutonium Concentration Facility

EPA COMMENTS ON ENGINEERING EVALUATION COST ANALYSIS  
FOR CENTRAL PLATEAU STREAMLINED DECOMMISSION PROFILE  
FACILITIES DRAFT (DOE/RL-2000-06, REVISION 0, DRAFT)

#	Section; page	Comment Type/Comment
		<i>General</i>
G-1		<p>It is understood that there are hundreds of buildings and we are not going to have hundreds of EE/CAs or Action Memos. However, the Streamlined Decommissioning Profile criteria are way too broad. You will end up having buildings like 224-B and 224-T with criticality concerns and a nuclear safety authorization basis covering them to no-never-mind buildings and everything in between. There needs to be more than one bin for these to be sorted into using more specific criteria. Each streamlined (should really call it "presumptive" rather than streamlined) EE/CA needs to describe the other(s) so that the regulators and the public can put the removal actions into perspective (especially with regard to cumulative impacts). There needs to be a process of discovery whereby new information can lead to switching a building to a different presumptive removal alternative if warranted. We wish to discuss ideas to approach the issues at an upcoming meeting.</p>
G-2		<p>The public involvement aspect of the plug-in approach in this plan is not acceptable. The public gets to comment the first time round, but after that, they have to go to the Administrative Record to view what buildings have been added since. Also, with the new rules on Official Use Only documents, the 224-B (Appendix A) information will only be available for viewing by the public in the DOE Reading Room at WSU Tri-Cities.</p>
G-3		<p>The idea that leaving the slab is more conducive to the future remediation is based on the assumption that the future remediation will involve capping. It is just as easy to argue that removing the entire foundation and 1 meter of soil is more conducive to remove, treat, dispose for the piping and contaminated soils beneath and around the building. There would be the added benefit of having workers with first-hand knowledge of the facility there to finish the below-grade structures rather than waiting years for a new crew who may not know how to deal with possibly TRU-containing pipes.</p> <p>Another example would be for a mildly contaminated building that is isolated and it is believed that there is a good chance that with a little extra effort, the entire area can be cleaned up and removed as a waste site.</p>
G-4		<p>The draft of the 224-B EE/CA developed by Bechtel Hanford Incorporated in 2000 (just before the Tri-Parties agreed that D &amp; D of the facility was not as big a priority as concentrating on the river</p>

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		<p>corridor cleanup) has their most intrusive alternative described as “Decontamination and Demolition (Including Building Foundation and Extending into Underlying Soil/Structures a Minimum of 1 M Below Surface).” The new EE/CA has the alternative read, “Decontamination and Decommissioning (Including Building Foundation and Underlying Soils/Structures to One Meter Below Surface).” Demolition would be more descriptive. Decommissioning doesn’t have to mean removal. Need to revert back to original title.</p> <p>Also, EPA will require that an alternative be evaluated where the 1 meter zone would be like a skin around the entire below surface structure (foundation/basement) so that it is totally removed, not just 1 meter below grade. This supports evaluation of the widest range of alternatives.</p>
G-5		<p>If this streamlined EE/CA is going to have 224-T as an appendix, it needs to reflect that Ecology can be the lead regulator on some of the facilities. It would also have to take into account the TSD portions of the facility. Would their closure be documented in a CERCLA document and then referenced in the Site-Wide Permit? Would the structure of the building include all connected piping?</p>
G-6	Appendix A	<p>The 224-B specific appendix indicates that the fact that the facility meets the SDP criteria was the reason for selecting the preferred alternative. The SDP criteria are too wide open to be used as a major deciding factor in whether a certain removal action alternative should be applied to a particular facility. It is good that you are using CERCLA criteria to help select from the alternatives. However, you fail to indicate this in the appendix.</p>
G-7		<p>The detailed work plan for FY00-02 (first time around for 224-B) assumed no craft bumping in the cost estimates. The present contractor at 233-S has had major issues with maintaining experienced D &amp; D workers (especially with experience working in highly alpha-emitter contaminated environments). How confident is DOE that the workers will be able to transition in a timely and substantial way from PFP and the reactor ISS projects to the D &amp; D of 224-B, or other central plateau facilities?</p>
G-8		<p>Don’t allow the entire Appendix A to be For Official Use Only. Just split out the offending tables and diagrams, leaving costs and other specifics necessary for the public to comment on. Also, since you are removing the materials and securing the building during D &amp; D, why can’t the inventory information remain so the public can see why the building needs to be removed and what the scope of the project is? It isn’t like anyone can get a hold of anything at the site after it has been sent to WIPP or wherever.</p>
G-9		<p>Does the Defense Nuclear Facilities Safety Board have a role in</p>

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		the D & D of 224-B and other similar facilities?
G-10		Are you planning to append the Action Memo and the EE/CA each time a building meets the criteria and is plugged in?
G-11	Appendix A	The costs for these alternatives seem ridiculously expensive. The D & D of the 224-B building is not that different from the 224-U building in scope, yet the costs are about four times higher for demolition for 224-B than 224-U (as seen in the U-Plant Canyon Disposition Initiative FS and PP documents). According to an e-mail from Julie Robertson of Fluor Hanford dated, 9/4/2003, Fluor has developed revised figures for 224-B that are much less expensive. Why weren't these values included in this draft for review? The new estimates need to be in the revised document.
G-12		An EE/CA and AM that cover several buildings under one removal action will have costs that are additive. You will most certainly go over the \$75 million trigger for the EPA National Remedy Review Board that applies to DOE radiological sites. You will have to factor time in for this review. There is a review in November and one in the January/February time frame. The streamlined EE/CA document you have presented does not have enough detail and would not be well received. While the Board does not have veto power, it would be better to work to make whatever goes in front of them a supportable document.
<i>Specific</i>		
1	1.0; 1-1, last sentence	The document in parenthesis is not in the references section.
2	1.1; 1-1, second sentence	Please delete "selection and cost."
3	1.1; 1-1, third sentence	Don't see how you can issue a standard or generic Action Memo, there needs to be an Action Memo (AM) that is specific to a facility or group of facilities that are selected ahead of time so that there can be proper public involvement.
4	1.1; 1-1, last sentence	How can the public comment on ahead of time? Should write a fifth point in the paragraph that states that an AM for each central plateau facility, or group of facilities, will be issued following an opportunity for public comment.
5	1.2; 1-1, third sentence	Please replace "an increased potential for" with the statutory language... "a substantial threat of."
6	1.3.2; 1-2	<p>Please rewrite the bullets as follows:</p> <ul style="list-style-type: none"> <li>• Allow the lead agency to take <i>any appropriate</i> removal action to respond to releases or substantial threats of releases to the environment that pose a threat to public health or welfare or the environment;</li> <li>• Require the lead agency, as appropriate, to begin taking actions as soon as possible to respond to releases or substantial threats of release;</li> </ul>

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		The third and fourth bullets are misleading and not necessary. You are reading more into 40 CFR 300.415 than there is. Please delete them.
7	1.3.3; 1-2, first sentence	After "Policy" add "and the HFFACO." You may want to explain that you are referring to the TPA.
8	1.3.3; 1-2, first sentence	Should be more specific than decommissioning. Your preferred remedy involves demolition under a removal action.
9	1.3.3; 1-2, second sentence	Concurrence is not just to be sought; it is a requirement of the TPA. Need to add an "s" to "AM" since one AM will not cover all of the various types of buildings. There are no plug-in AMs. You will have to batch the buildings if you want more than one to an AM.
10	1.3.3; 1-2, second sentence	Please replace "including" with "and."
11	1.3.3; 1-2, second sentence	How about work plans? See TPA Action Plan section 11.6...work plans are required to be approved by EPA, including ERA work plans. Please revise the text accordingly.
12	1.3.4; 1-3	Who writes the responses to comment?
13	1.3.4; 1-3	What is the process for discovery that would lead to rejecting a facility from the SDP or the selected alternative once you start sampling? What is the decision logic about where the facility might end up if it turns out to require a different approach? How does the public or the regulators comment on this if it is not in the document? This discovery could be made during early sampling, or it could be during sampling as you employ the selected alternative. This comment will be more pertinent when you narrow the SDP to a reasonable range of characteristics.
14	1.3.4; 1-3, last paragraph	Again, the State Department of Ecology (Ecology) will have a much larger role as the lead regulator if 224-T is plugged into this streamlined EE/CA as planned. It is likely that the RCRA/CERCLA integration discussion will be required to have a great deal more detail for this document to be acceptable to Ecology. You are not going to get Ecology's concurrence before public comment?
15	1.3.4; 1-3, last paragraph, second to the last sentence	Please delete "documentation in the AR" and replace with "issuance of the AM."
16	1.4; 1-3, and section 1.6	This scope is wholly inadequate and biased toward Alternative 3. You don't know enough about the below grade structures to discount their risks. Also, you cannot presume the future remedial actions to be capping. While we don't expect the removal action to chase plumes all over, we should not rule out the benefits of removing the below grade structures and associated hazards.
17	1.5; 1-4, fourth paragraph	How few facilities with above grade structures would not meet the SDP?

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18	1.5; 1-4, last paragraph	Again, the public will have to keep taking a peak at the EE/CA to see what has been added prior to any chance to comment on the additions.
19	1.5; 1-4, last paragraph, fourth sentence	Please delete this sentence. The plug-in approach is not acceptable. However, we can work out another way to efficiently make use of EE/CAs and AMs.
20	1.5.1; 1-4, second sentence	Risk to workers within a facility is not a basis for CERCLA action. Please replace the last part of the sentence beginning with "by the presence..." with the following, "if there is a release or a substantial threat of a release of a hazardous substance to the environment that poses a threat to the public health, welfare or the environment."
21	1.5.2; 1-5, first paragraph, second sentence	Please insert "and type" after "presence."
22	1.5.2; 1-5	The SDP is too wide open. For example, these same criteria could apply to a mobile office building that has no business taking up valuable ERDF space.
23	1.5.2; 1-5, fifth bullet	Are you saying that a facility containing waste consisting primarily of debris with some miscellaneous liquid and solid waste streams is going to pose a substantial threat of a release into the environment?
24	1.5.2; 1-5, last bullet	While there are no past practice milestones for the majority of these facilities, EPA is contemplating adding a new milestone series to cover such facilities.
25	1.5.3; 1-5	How can you apply a standard removal action to facilities that you do not have enough characterization information about (especially in the lower structures and piping)? How can you do so without a contingency for discoveries that obviate the alternative selected?
26	1.5.3; 1-5, second sentence	Please delete this sentence.
27	1.5.3; 1-5, third sentence	Please replace "applied" with "available."
28	1.6; 1-6	Again, we haven't decided what constitutes the subsurface contamination that is to be left for the soil operable unit remediation folks.
29	1.6.1; 1-6, third to the last sentence	This sentence is written such that it has a double meaning. Does it mean that there little TRU will be removed before the removal action or does it mean that there is very little TRU to remove period? Considering that 224-B has an authorization basis and criticality concerns, I would say the latter is not likely to be true. The TRU waste would require a certain level of characterization through non-destructive assay (NDA) to make sure the TRU and LLW go to the right disposal facilities. Has this been factored into the work scope and costs for 224-B?

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		You could clear up the sentence if you add "need be" after "inventory" and delete the second "is."
30	1.6.2; 1-6	See earlier comments on facilitation of future remedial actions.
31	1.6.2; 1-6, fourth sentence	Please replace "this" with "the standard."
32	1.6.3; 1-7	The facilities like 224-B, with the exception of 233-S, are very large and separated by many meters from their respective canyon buildings. The proposed cap for U-Plant has a water infiltration barrier portion that covers only the building and a few waste sites up against the side of the U-Plant. This barrier does not protect these large ancillary facilities from water infiltration. It only offers some protection against intrusion and exposure to direct radiation. So protection from the caps that may come out of the CDI program does not support an argument to leave facilities that might be plugged into this EE/CA as slab-on-grade.
33	1.6.3; 1-7	If additional capping occurred (such as lobes attached to the larger U-Plant cap) to provide water infiltration barriers, where would the material come from and how would run-on and run-off be dealt with? While these questions may be out of the scope of this streamlined EE/CA, you are making assumptions and arguments based on larger issues that affect the selection of future remedial actions.
34	1.6.3; 1-7, seventh sentence	In the sentence beginning, "Alternatives for facility..." add "evaluated in this EE/CA" after "Alternatives."
35	2.0; 2-1	Please add the Future Site Uses Work Group and the Exposure Scenario Taskforce as other sources of guidance on land use.
36	2.0; 2-1, second sentence	Inactive irradiated-fuel reprocessing facilities are not a land use. Even waste management is only a portion of a land use. The recent DOE/regulator/trustee workshop (Exposure Scenario Taskforce) on land use and recent Hanford Advisory Board advice do not point toward limiting land use to Hanford-related waste management activities. Other industrial activities also can play a role and the fewer caps; the more room there will be for such reuse.
37	2.1.2; 2-1	What about radioactive bunnies (or other critters that get into buildings and contamination)? You should refer to the Central Plateau Ecological Evaluation when it becomes finalized.
38	2.1.3; 2-3	If removal action lends itself more to capping, then questions about source areas and potential impacts are truly more significant. It is difficult for the public to understand impacts when cleanup is piecemealed.
39	2.2; 2-3	Please delete "selected for removal action under this EE/CA."
40	2.3; 2-3	TRU and TRU-mixed waste will likely result from activities at 224-B. Also, nitric acid and nitric acid TRU are also distinct

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		possibilities based on lessons learned on the 233-S D & D project.
41	2.4; 2-4	It is all right to talk about worker risks, but you need to demonstrate external risks to justify a removal action. There must be a substantial threat of release to the environment that warrants action to protect human health and the environment. For 224-B, you may be able to support your case through use of information developed through hazard analyses necessary to conduct work under the nuclear safety authorization basis. You may also want to explain more about the consequences of a lack of robust ventilation.
42	2.4; 2-4, last paragraph, first sentence	Please stay consistent and use "radionuclide" to describe the contamination.
43	2.4; 2-4	What about subsurface risks and characterization? The amount of piping under these facilities and the distance from the potential capping remedy proposed for their canyon buildings strongly favors some kind of sampling to confirm if it's safe enough to leave slab (especially in light of uncertainties about future remediation and funding).
44	3.0; 3-1, last bullet	Would prefer that you use the language from the statute. See 300.415 (e) – To the extent practicable, contribute to the efficient performance of any anticipated long-term remedial action with respect to the release concerned. Also see 300.415 (g) – ensure an orderly transition from removal to remedial response actions.
45	4.0; 4-1, first sentence	Please add "and otherwise meet RAOs" onto the end of the sentence.
46	4.0; 4-1, third paragraph	What do you mean by "media"? Why wouldn't the material, soils, or "media" removed for recycle be subject to CERCLA and the CERCLA offsite rule? EPA has a responsibility to ensure that EPA is not creating a future CERCLA site wherever recycled material from a CERCLA cleanup is sent.
47	4.0; 4-1, last paragraph on page	Do we need to have them add the latest ROD Amendment for ERDF?
48	4.0; 4-1, last paragraph	It should be noted, that even if you are allowed to remove waste before the removal action, it will not be covered under CERCLA and cannot go to ERDF.
49	4.0; 4-2, second paragraph	Where and when will the types of treatment be determined and documented? In a work plan? In the AM? What document will the approved treatment plan be in? Please specify.
50	4.0; 4-2, last bullet	This is dependent on the effectiveness of solidification on the mix of constituents.
51	4.0; 4-2, last two sentences on page	Combine these sentences. You may want to indicate that the TRU waste might be properly packaged at the D & D site and not need to be packaged or repackaged at WRAP before being sent to WIPP. All waste shipping and disposal and D & D activities will

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		have to be scheduled in a primary document covering waste management that is approved by the lead regulator. We expect to have something at least as good as the 233-S RAR language about TRU shipment to WIPP.
52	4.0; 4-3, first sentence	EPA does not consider them to be one single site. We will still use our offsite determination authority.
53	4.0; 4-3, third sentence	By "non-CERCLA" do you mean RCRA? Are you certain the State is okay with managing waste under only substantive requirements once the wastes are at these permitted facilities?
54	4.0; 4-3, fourth sentence	Again, "onsite" is not all of the facilities at Hanford.
55	4.0; 4-3, last sentence	What do you mean when you say "if necessary"?
56	4.1; 4-3, fifth sentence	The sentence beginning with "Barring..." is at odds with the need for a substantial threat of release to the environment. Please replace "assumed" with "expected."
57	Footnote at bottom of 4-3	You do not explain how the criteria are met to treat them as one single site.
58	4.2; 4-3 to 4-5	Please make sure you indicate that there would be some waste generated during the S & M activities covered by this alternative so that you support the part of your statement in section 5.1.4, page 5-13, that provides that Alternatives Two through Four generate waste.
59	4.2; 4-4; first sentence	After "2043" please add, "for final facility decommissioning." You should clarify what the long-range plan is for.
60	4.2; 4-4, third paragraph, third sentence	What about potential seismic impacts?
61	4.2; 4-4, fourth paragraph, last sentence	Please add "risk of" after "increased." Again, you need to indicate a threat of release to the environment.
62	4.2; 4-5	Costs – categories – range, The review of costs is still tough from public involvement standpoint because the public doesn't get a chance to comment on ahead of time on plugged in facilities. The costs would need to be in the AM, not sure you could get away with appending it without more chances for the public to comment. It may be possible to cover the ranges of costs for categories of buildings in the AM, but this still may be pushing it.
63	4.2; 4-5	Need to have surveillance and maintenance costs for the time period (or annual costs) of stabilization anticipated before the implementation of a remedial action. These would likely be different based on the choices of removal and remedial actions, but at least the fact that there will be some costs needs to be addressed.
64	4.3; 4-5, bullets	Why aren't there bullets for the activities under the other alternatives? Looks like your analyses are biased toward the

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		answer you want. Please explain for the reader with some follow on text how the first and third bullets relate. It looks like stabilizing contamination is at odds with removing hazardous substances.
65	4.3, 4-6, third paragraph, last sentence	Please specify what types of things may be done to stabilize the facility footprint.
66	4.3; 4-6	Don't forget that for both Alternatives 3 and 4, you may run into NDA or criticality issues, or authorization basis red tape. You will not be able to use cutting torches until 224-B is downgraded to radiological. There are also going to be risks of emissions during demolition because you will not be able to decontaminate or fix enough.
67	4.4; 4-7	Again, the 1-meter below requirement needs to stipulate that it would be below the foundation or structure, not the ground surface. If this is not the concept then clarify and justify.
68	4.4; 4-7, first sentence	Please insert "and removal" after "demolition."
69	4.4; 4-7, last paragraph	Would the soils that might be removed for shoring purposes be designated and sent to ERDF or put back in the hole?
70	4.4; 4-7, last sentence	Alternative Four could easily be considered more protective since you are removing more contamination and safely disposing of it in ERDF.
71	5.0; 5-1, first sentence	Please delete "CERCLA requires that" and capitalize "non-time-critical" to start the sentence. This is not an explicit CERCLA requirement. Also replace "be" with "are."
72	5.1.1; 5-2, second to last sentence	It is not appropriate to assume that the amount of subsurface contamination is small. What does small mean, anyway? You have no characterization data to make such conclusions.
73	5.1.2; 5-2, first paragraph	Please note in the text that remedial actions must comply with ARAR requirements in accordance with Section 121 (d) of CERCLA.
74	5.1.2; 5-2, last sentence	Sentence beginning with "Furthermore, ..." needs to have "CERCLA" added after "onsite."
75	5.1.2; 5-3, first paragraph	Please delete the last two sentences. The statement in the first sentence is not true. It is only true to the extent practicable.
76	5.1.2; 5-3, second paragraph, first sentence	Delete "potential."
77	5.1.2; 5-3, second paragraph, second sentence	Please delete "In certain situations" and replace with "As appropriate."
78	5.1.2; 5-3, second paragraph, third sentence	Delete the word "proposed."

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79	5.1.2.1; 5-3, first paragraph	Do you spell out ACM somewhere earlier? Does it stand for asbestos contaminated material?
80	5.1.2.1; 5-3, second paragraph, third sentence	Delete "proposed as." The statement in the next paragraph, third sentence, about how the standards "would apply" is an example of a better approach.
81	5.1.2.1; 5-4, third paragraph, first sentence	Please add "that meets ERDF acceptance criteria" after "LLW."
82	5.1.2.1; 5-4, fourth paragraph, first sentence	Please add "and ERDF acceptance criteria" after "restrictions."
83	5.1.2.1; 5-4, fifth paragraph, first sentence	Please replace "disposal" with "treatment."
84	5.1.2.1; 5-4, fifth paragraph, second sentence	Please rewrite as the following: "ETF is a RCRA-permitted facility that is authorized to treat aqueous waste streams generated at the Hanford Site following treatment at ETF, the waste would be disposed of at a designated state-approved land disposal facility in accordance with all applicable requirements." Please note that if it is listed dangerous waste, it must be delisted or it can't go to SALDS.
85	5.1.2.1; 5-4	See earlier comments about bypassing WRAP if packaging and certification done properly. Also see comment about single site and offsite determinations.
86	5.1.2.1; 5-4, last paragraph	Again, you don't explain how you meet the criteria.
87	5.1.2.2; 5-5	Need to indicate that EPA will have to approve the air monitoring plan and revisions.
88	5.1.2.3; 5-5, second paragraph, second sentence	Don't you mean "site-specific health and safety plan?"
89	Table 5-1; 5-6	For the entry containing Dangerous/Mixed Waste Management, how about listing sections dealing with storage or treatment requirements?
90	Table 5-1; 5-7	What do you mean by final status?
91	Table 5-1; 5-9	In the Emissions of Hazardous Air Pollutants entry, third paragraph of the Requirements column, please delete the "are" between "that" and "would."
92	Table 5-1; 5-10	Please clarify the rationale for the Controls for New Sources of Toxic Air Pollutants (how the treatment technology part is involved).
93	Table 5-1	Let's discuss similarities and differences with the ARARs from 233-S.
94	5.1.3; 5-11, first paragraph	Please replace "an" with "a" and delete "unacceptable." There is a statutory preference for permanence. However, the statute doesn't

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		Speak in terms of acceptable or unacceptable risk.
95	5.1.3; 5-12, second paragraph, second sentence	Please add "more" in front of "permanent."
96	5.1.3; 5-12, second paragraph, fourth sentence	How will you verify the conceptual model that there is a "small" quantity of contaminants below the surface compared to above?
97	5.1.3; 5-12, second paragraph, fifth sentence	Please add "for the structure" onto the end of this sentence. You still have waste in the subsurface and waste removed will have to be managed elsewhere.
98	5.1.4; 5-12, first paragraph, first sentence	Please replace the "a" in front of "removal" with a "the." Also, please add "alternatives" onto the end of the sentence.
99	5.1.4; 5-12, second paragraph, first sentence	Where is the basis for the 10% figure for waste requiring treatment to meet various waste acceptance criteria?
100	5.2; 5-13, third paragraph, second sentence	If 233-S is any indication, you may be underestimating the difficulty of finding workers with experience in facilities highly contaminated with alpha-emitting radionuclides. This is especially true for workers with D & D experience. PFP workers will not be available for a few years, as they need to D & D that facility.
101	5.2; 5-14, second to last sentence in section	EPA does not necessarily agree with this conclusion. Your conclusion is dependent on a capping remedy and we may not support the selection of capping as the remedy. It could be said that removing the entire foundation would be more conducive to remove, treat and dispose.
102	5.4; 5-14, second paragraph, first sentence	Should add "or disposal" between "waste treatment" and "facilities."
103	5.4; 5-14, second paragraph	How can you assess cumulative impacts properly if you do not know how many buildings will eventually plug-in? Especially if you have to narrow the selection criteria and have several plug-in bins.
104	5.4; 5-15	Don't forget the larger picture. If you choose slab-on-grade, this lends itself better to a capping remedy (otherwise, why stop at slab-on-grade). Caps will require resources, too.
105	5.4; 5-15, last sentence	The excavation would be deeper if the foundation went deeper and this alternative really involves removing the whole foundation. If it does not, an alternative 5 should be created to look at taking out the whole foundation. It doesn't make much sense to stop at 1 meter below ground surface. It makes more sense to stop at 1 meter below the foundation (varying based on how deep the foundation goes).
106	6.0; 6-1	Of course there is little added benefit to only going 1 meter below the surface compared with slab-on-grade. The comparison you

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		should be making is with removing the entire underground structure and 1 meter below that. You should include such an alternative or expand Alternative 4 to include this entire scope.
107	6.0; 6-1, last sentence in section	What kind of public participation is "appropriate"?
108	A.1.5.2; A-4, first paragraph	Don't you mean for the last "characteristics" to be "criteria"?
109	A.1.5.2; indented subsection	Somewhere you need to indicate where the nearest public receptor would be.
110	A.1.5.2; A-11, first paragraph	Should also refer to the Central Plateau Ecological Evaluation as a source of ecological resource information. The current 200 Area Ecological Data Quality Objectives work may eventually affect the way removal actions are performed.
111	A.1.5.2; A-11, last paragraph	Please realize that there may be nitric acid and it may be mixed with TRU, as was the case with the 233-S facility.
112	Table A1-1; A-12	What data is this radionuclide ratio supported by?
113	Table A1-1; A-12	The text below this table indicates that the uncertainty is up to 1.5 times the original reported values. Does this table report the original values or does it reflect the higher end to be more conservative? Which values will be used for calculating potential to emit, worker safety, or waste stream planning?
114	A.1.5.2; A-12	Where is the mention of nitric acid?
115	A.1.5.2; A-13, last paragraph, second sentence	Media removed for recycle from a CERCLA removal action would be subject to CERCLA authority. If you removed the material before the action using your AEA authority, that would be different.
116	A.1.5.2; A-14, second paragraph	Waste may also be distinguished operationally by whether or not it is "soft waste" such as step off pad waste like PPE. You may want to consider whether or not it is advantageous to indicate this level of detail.
117	A.1.5.2; A-14, second paragraph, last sentence	Should add monitoring to list of activities at ERDF just to be thorough.
118	A.1.5.2; A-14, first bullet	This is true as long as the mercury isn't hopelessly mixed into a matrix.
119	A.1.5.2; A-14, last bullet	This is dependent on the effectiveness of the solidifying agent on the mix of constituents inside the aqueous solution. However, it has been successfully done on solutions coming from 233-S.
120	A.1.5.2; A-15, first sentence continued from previous page	Need to add that these wastes being stored at CWC will be treated when a treatment is available and then disposed of.
121	A.1.5.2; A-15, second paragraph, first sentence	Need to add the same language used in the 233-S RAR about TRU being shipped to WIPP at least by the time cleanup is to be done in the 200 Areas.
122	A.1.5.2; A-15,	EPA does not agree with this. We have the authority to continue to

#	Section; page	Comment Type/Comment
	second paragraph, second sentence	make offsite determinations and keep tighter control of waste management issues and we will do so. These facilities will not be considered one single site for the purposes of any CERCLA cleanup. Only certain sites (like ERDF) will meet this as approved by EPA and written into the Action Memo.
123	A.1.5.2; A-15, third indented paragraph	While the 224-B facility is not a key facility, similar facilities may be rolled up into a new milestone series in the future. The 224-T facility would be subject to TSD provisions in the TPA and, of course, State regulations.
124	A.1.5.2; A-16, first indented paragraph	Need to explain for the public why the facility qualifies for decommissioning according to the policy.
125	A.1.5.3; A-16, last sentence	How about filling Cell C with grout if you really are leaning towards a capping remedy?
126	A.4.1.1; A-17	Even though it seems obvious, you should add some more to this by explaining why the costs would be negligible for the public's benefit.
127	Table A4-1; A-17	Are these in year 2000 dollars?
128	Tables A4-3 and 4	The estimated volumes of each waste stream should be included, probably in parentheses after the waste stream in the "Waste Disposal" cell of the tables.
129	A.5?	Where is it?
130	A.6.0; A-19, last sentence	Is 200-BP-6 the right operable unit? This sounds like one of the operable units from the old geographic scheme (before the operable units were consolidated to 23 process-based units).
131	A.6.0; A-19, last sentence	Alternative 4 does not preclude any remedial actions, either. You need to indicate this, even if it is in the discussion of Alternative 4. You have decided what you are going to do (Alternative 3) and are writing everything around that, rather than taking a decent look at the situation for each type of facility.
<i>Typo</i>		
T-1	2.4; 2-4, last paragraph, first sentence	Missing a period.
T-2	1.5; 1-4, first paragraph, last sentence	Change "these" to "this."
T-3	A.1.5.2; A-14, second paragraph, fourth sentence	Looks like there is an extra space or two between "operation" and "was."
T-4	5.1.2; 5-2, third sentence	Have an extra period.