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PROJECT DOCUMENT REVIEW RECORD

DOCUMENT TITLE/DESCRIPTION: *Waste Area Group 5 Remedial Design/Remedial Action Work Plan, Phase II*

DATE: March 25, 2003 . **REVIEWER:** State of Idaho Department of Environmental Quality

ITEM NUMBER	SECTION NUMBER	PAGE NUMBER	COMMENT	RESOLUTION
			General Comments	
1	General		There are several sections in the document that mention areas of exposed basalt in the excavation areas. The work plan should propose the method that will be utilized to remove the contamination in those areas. For example, exposed basalt areas could be scraped with heavy earthmoving equipment to remove surface contamination above remediation goals. The areas will then be field checked and if contamination remains above remediation goals, the use of brushes, brooms, and HEPA vacuums may be employed to remove the contamination. If contamination remains after all removal efforts have failed, the area should be considered for Institutional Controls (ICs).	Discussion pertaining to alternate methods of removing contamination has been added to Section 5.4. In addition, verbage in Section 5.15 has been revised to reflect the implementation of institutional controls if all methods of remediation fail to remove contamination to levels below the remediation goals.
2	General		Please check the drawings in the document for locations of lay-down and stockpile areas in regard to the prevailing wind direction (see specific Comment Number 18).	The laydown/stockpiles areas have been reviewed. To note, excavated soils will not be stockpiled. Text has been corrected to reflect this. The laydown area delineated for ARA-23 was placed in an area outside of the prevalent winds as can be verified by comparison of the contaminant plume versus the proposed laydown area. Care will be taken in selecting these areas to minimize the chance of contamination from contamination that becomes aireborne during the remedial action.
3	General		It would be beneficial if Appendix J included a summary as to the effect of the calculated air emissions. Information regarding a "no level for concern" determination, or what the concern may be, should be included.	Emissions of arsenic (ARA-01) and chromium (ARA-12, added) are compared with State of Idaho Emissions Limits. For chromium at ARA-12, which exceeded the EL, a concentration was modeled to the INEEL boundary, and is below the Acceptable Ambient Concentration for a Carcinogen (AACC). For radiological releases, the doses to a maximally exposed individual at the INEEL boundary were calculated for ARA-12 and

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				ARA-23. The doses, now shown in Table J-4 and J-6, are far below the NESHAP 10 mrem limit, which is cited in the 4th paragraph of Appendix J.
			Specific Comments	
1	1.1	1-3	Eleventh Bullet: The title of Appendix I is Safety Category Designation and Record, as well as the document in the appendix. Please correct the bullet.	The bullet has been corrected.
2	1.1	1-3	Statement Following Seventeenth Bullet: Since DEQ had received the Quality Assurance Project Plan (2002) and the Operations and Maintenance Plan (2000) earlier and separately from the remainder of the documentation, it is recommended the sentence be reworded to state: "In addition, five separate documents are associated with the Work Plan."	The sentence has been reworded.
3	1.2	1-6	Figure 1-2: The photograph of the Auxiliary Reactor Area 01 (Chemical Evaporation Pond) and the drawing have north arrows that do not seem to match in orientation. Please clarify, if not correct.	The drawing has been replaced by a more up-to-date drawing doing away with the photograph which was confusing.
4	1.2	1-7	Figure 1-3: The drawing does not contain any legend description for the elliptical gray area (highest concentration?) within the "simulated source area." Please provide.	The drawing has been replaced by a more up-to-date drawing doing away with the photograph which was confusing.
5	1.2.3	1-8	First Sentence: The description states that ARA-23 is a 240-acre, windblown contamination area with 42-acres contaminated above risk-based concentrations. Figure 1-4 shows a contamination area at least half the size of ARA-23. Please provide more detail in the figure if ARA-23 is much larger than the figure represents. Figure 1-4 also does not state if this is only above the risk-based concentrations, or if it is the total plume from the windblown contamination.	The drawing has been replaced by a more up-to-date drawing doing away with the photograph. Refer to the text and Appendix F for discussions pertaining to the extent of contamination.
6	1.3.1	1-8	First Paragraph, Fifth Sentence: PBF-16 needs to be evaluated by the agencies as to whether ICs are necessary. Based on the sampling and analysis performed in 2000, DEQ concurs that the site status should	A statement has been added that the site will be evaluated for institutional controls in the final

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			be no further action. According to guidance, "no further action" implies the use of ICs, while a "no action" determination denotes that the site is immediately available for unrestricted use, and ICs are not required. It is recommended that the site be evaluated for risk, with the most recent sampling and analysis results. Although mercury and lead are below remediation goals, some locations are above background concentrations, and ICs may be necessary unless the site can be released for unrestricted use. An extreme scenario could include the construction of a childcare center with an infant ingesting soil from the area of highest COC concentrations.	remedial action report for WAG 5.
7	1.2	1-9	Figure 1-4: The drawing within this figure does not possess a "north" arrow. Please provide an arrow. Explain the dashed line on the photograph, or remove.	The figure has been replaced.
8	1.2	1-10	Figure 1-5: Please illustrate the relative position of the drawing to the photograph, as it does not appear that PBF-16 is represented in the photo.	The drawing has been replaced with a picture showing the location of the pond relative to the facility.
9	1.3.2.1	1-11	Please provide an explanation within this section regarding the disposition of 21 drums that were contained within the CERCLA Waste Storage Unit in Revision 0.	The text pertaining to the 21 drums was placed back in the document.
10	1.3.2.2	1-12	End of Paragraph: The last three sentences appear to have been written prior to the current groundwater sampling effort. Samples have been collected since the ROD, and are being collected annually, at least until the 5-year Review.	The text has been reworded to reflect the current status of the groundwater sampling effort.
11	2.2.2	2-2	Fifth Bullet, Last Sentence: Recommend that the sentence is reworded to state that ICs will not be required after remediation if all contaminated media are removed, or if contaminant concentrations allow unrestricted use of the site. ICs that are put into place will be maintained until discontinued, based on the results of a 5-year Review.	The bullet has been reworded as suggested.
12	2.2.2	2-3	Last Paragraph, Last Sentence: ICs may still be required if all soil is removed down to basalt and contamination remains that may not allow for unrestricted site use. Please correct the statement. It is suggested that the wording in the previous comment be utilized.	The sentence has been reworded to match the text in the bullet.

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13	2.2.2	2-3	First Paragraph, Second Sentence: Realizing that a number of in-situ, real time measurement techniques are available for deployment in the area of excavation, there is a concern that utilization of the GPRS in any area that has been excavated of contaminated soils is questionable. To elaborate, the GPRS, mounted on the four-wheel drive vehicle, is of extreme value for the detection and delineation of large areas, such as those encountered within ARA-23. However, once the first layers of soils are removed (three inches in some areas, six in others), the use of the GPRS unit may be analogous to "a bull in a china shop." With the project goal of waste minimization in mind, a host of potential "dragout" issues seem plausible, from tire dragout of impacted soils into (now-clean) areas to the fugitive dusting generated by such a vehicle. Water spraying of the area, to be traversed by this unit, may exacerbate the tire dragout potential while reducing the fugitive dust generation. Please provide more detail regarding the use of the GPRS, following the initial excavation, so that cross contamination issues can be minimized.	A discussion has been added to section 2.2.2 pertaining to the use of the GPRS and the approach used to mitigate the spread of contamination.
14	2.2.2	2-3	Second Paragraph, Third Sentence: The text outlined within Section 5.3.5 provides a discretionary evaluation, by the RCTs, of the effectiveness of the fugitive dust control efforts. This approach is questionable; a discretionary evaluation by one RCT may be very different from another's. It is suggested that an air-monitoring program be implemented as part of the soil excavation effort for each of the areas. Windblown dispersion of contaminants, as investigations have shown, has been a leading cause of present-day remedial actions over this large area.	Air-monitoring will be implemented in accordance with the HASP as directed by INEEL resident procedures. While windblown contamination is the cause, it is primarily attributed to the single event. Subsequent activities in the area have had a negligible effect on additional spread of windblown contamination as evidenced by the comparison of the 2002 GPRS survey results with results from surveys performed in previous years. A requirement for sequencing of soils in an effort to mitigate the spread of contamination has been added to Section 5.4. To note, through several years of activities at ARA, including the D&D of numerous facilities, no appreciable spread of contamination beyond the original boundaries has been found.

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15	2.2.2	2-3	Second Paragraph, Last Sentence: Please state if tarps will be used in conjunction with the "burrito bag" liners.	This was already stated in the text. The "burrito bag" liner will be sealed with a tarp then rolled over the entire roll-off/end dump truck and affixed to further mitigate the potential for spread of contamination.
16	2.6	2-5	Fourth Bullet: Please verify if the mention of "background levels" should be changed to "risk-based concentrations."	The text is correct as written. No change has been made.
17	3.3	3-2	First Paragraph, First Sentence: Suggest adding a bullet for decontamination areas. In addition, please clarify what types of materials are destined to be placed in the "stockpile areas," and indicate the difference to the reader between "lay-down" and "stockpile" areas.	Added a bullet as suggested. Deleted "stockpiles" from the text as excavated soils will not be stockpiled prior to loading for transport.
18	3.6	3-3	First Paragraph, Sixth Sentence: This statement, although commendable in intent, has not been illustrated to be true within the document. Sheet C-1 of Appendix A contains a rectangular area labeled, "lay-down area," immediately north of the ARA-23 Project Area. Throughout the document, various references have been made regarding the prevailing wind direction being from southwest to northeast. The lay-down area, indicated on this sheet, is located downwind from a large portion of the excavation area. Suggest all stockpile and lay-down areas for ARA 01 and ARA-23 (and ARA-12 as well) sites be located at upwind locations from the soil excavation areas. Please provide an explanation, or correct as necessary.	As previously discussed as well as discussed in the Agency call of 2/20/2003, great care has been taken in the selection of laydown areas. The site selected for ARA-23 is outside of the windblown plume as shown in the maps. In addition to the potential for airborne contamination affecting a laydown area, other factors must be taken into account such as access to roads, adequate space, and protection of cultural resources.
19	4.1	4-1	Last Paragraph, Second Sentence: There is a possibility that if soil is removed down to basalt and contamination above remediation goals remains, that brushing, vacuuming, and similar decontamination methods may remove the loose contamination in the basalt to an acceptable level. Please include this effort in the work plan.	Text pertaining to this effort has been added to Section 5.4.
20	5.1.2	5-1	Last Sentence: The site may no longer be an acceptable risk; however, it should be evaluated to see if it can be released for unrestricted use, otherwise ICs may have to be implemented.	A statement has been added that the site will be evaluated for institutional controls in the final

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			be released for unrestricted use, otherwise ICs may have to be implemented.	remedial action report.
21	5.3.2	5-2	Bullets: This section could benefit from the addition of other illustrative bullets, such as air monitoring stations and enumeration of the common components for each task site (i.e., decontamination, stockpile and lay-down areas, etc.).	Bullets pertaining to decontamination areas and laydown areas have been added. To note, the bulleted list is not intended to be exhaustive.
22	5.3.4	5-2	Second Paragraph: Please offer an expanded text regarding this clearing and grubbing process. For instance, no mention is made regarding the status of the vegetation that is present within the soil excavation target areas. Since constituents of concern may be contained on/in the vegetation, please provide information on management of the debris that is to be grubbed. In addition, Appendix L of this document does not address this material. During the actual removal process, the equipment utilized is expected to generate fugitive dust (high desert vegetation will normally be dry, and when uprooted, can generate copious amounts of dust when moved). This "soil" is plausibly the same soil that is the target of this remedial action. In addition, the task of grubbing could also "drive" the surface contamination deeper. Please explain how this scenario will be addressed.	Because of contaminant uptake, the vegetation will be mowed and left in place; whereby, it will be collected with the soil for disposal in the ICDF. Text pertaining to "grubbing" has been replaced with "mowing."
23	5.3.5	5-3	Second Paragraph, Second Sentence: As mentioned in a previous comment, this approach to RCT evaluation of the effectiveness of an air-monitoring program is undesirable. Without any commitment to the provision of "hard evidence" (air monitoring) that the engineering controls are effective, the entire soil excavation project will not have the benefit of demonstrating that the project did not spread additional contamination to surrounding, downwind areas, unless those areas are then surveyed at a later date. In the case of ARA-23, windblown deposition of constituents has left the large footprint that is currently scheduled for remediation.	Air monitoring will be conducted in accordance with the HASP and INEEL resident procedures. It is the intent of the project to survey the entire site with the GPRS following completion of the remedial action to ensure that the final remediation goals have been met. In addition, confirmation samples will be collected in accordance with the field sampling plan.
24	5.3.5	5-3	Second Paragraph, Last Sentence: This sentence, although not specifically mentioning all equipment, should be cognizant of the special needs of the GPRS, if used within the soils excavation areas following the first cut and excavation of contaminated soils.	Requirements specific to the GPRS have been added to the work plan.
25	5.3.5	5-3	Second-last Bullet: Please add, "and reclaim all disturbed task area support sites."	Added the suggested text to the "Backfilling all excavations" bullet.

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				excavations" bullet.
26	5.3.5	5-3	Entire Section: Soil Excavation Sequencing: the soil excavation and removal approach proposed within this document is, for the most part, very well thought out and detailed. One extremely valuable concept regarding waste minimization efforts for all of the WAG 5 remedial areas, that bears mentioning, is the sequence of each area's soil handling activities. For example, knowing that the prevailing wind direction in the WAG 5 area is from the southwest to the northeast, all support facilities should be located upwind of the soil excavation boundaries. Likewise, the progression of soil removal tasks should commence from the furthest upwind locations and proceed downwind in a phased fashion. Ideally, the excavation equipment can be matched to the task ("tight areas" versus vast expanses such as those found in ARA-23) and load-out areas located accordingly. With meteorological data available to the project team, "tweaking" can occur as the weather patterns shift. The points mentioned above are only examples of the level of detail that must be considered by the excavation team if recontamination is to be avoided, and additional waste generated as a result of fugitive (contaminated) soils being re-deposited onto "clean areas." Note: dust suppressants and water sprays have their own limitations and cannot totally be relied upon to contain errant emissions from newly-exposed soil areas; one 25-35 mph extended wind event can negate all previous efforts to remove contaminated soils, if the project area is in a downwind location from an upwind contaminated zone. As many pre-mobilization concepts should be entertained, and evaluated for merit, as possible.	Requirement has been added to Section 5.4. Additional discussion pertaining to the mitigation of spread of contamination has been added in accordance with previous comments pertaining to this subject. To note, through several years of activities at ARA, including the D&D of numerous facilities, no appreciable spread of contamination beyond the original boundaries has been found.
27	5.3.7	5-4	Second Paragraph, First Sentence: This sentence should be modified to reflect the results of air monitoring as a condition of project status determinations.	A sentence has been added pertaining to the use of air monitoring as directed by the project HASP to aid in determining the adequacy of dust suppression methods, etc.
28	5.3.8	5-5	First Paragraph, Last Sentence: Since the tarps may tear throughout the duration of the project, please add, "...before initial use *and throughout the duration of the transfer process.*"	Phrase has been added as suggested.
29	5.3.8	5-5	Second Paragraph: Please offer an explanation of how, in a preventative effort, the trucks will be loaded in an area/manner that minimizes tire and chassis contamination. The document does not offer an explanation	The current plan calls for using trucks dedicated to a specific function. The excavation equipment will

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			an area/manner that minimizes tire and chassis contamination. The document does not offer an explanation of the where or how the waste hauling vehicles are to be managed. Please comment.	a specific function. The excavation equipment will be maintained within the contamination zone, while trucks to be loaded will be restricted to the perimeter. If roll-offs are used, dedicated chain-hoist trucks will be restricted to the contamination zone with other trucks dedicated to the transport of roll-offs to the ICDF. Text discussing this approach has been added to Section 5.3.8.
30	5.4.2	5-6	First Paragraph, Third Sentence: The reference to the Drawing contained within this section should be appropriately referenced as Drawing "C-8."	The reference has been corrected.
31	5.4.3	5-7	Third Paragraph: This section comprises the first time the reader is introduced to the "Soil Areas A and C." Please offer an idea of where these two defined areas are located (Sheets C-4 and C-6). Note: it is acknowledged that Sheet T-2 (later in the document) specifies what these two locations are.	A reference to drawings C-6 and C-4 corresponding to Soil Areas A and C, respectively, has been added.
32	5.7	5-8	Entire Paragraph: This section represents a topic that may be explored further by all parties in the pursuit of controlling project costs. For example, there may be flexibility in expanding the workweek and providing "incentive" for the contractor to finish early. This could compensate/offset the tendency of the contractor to remove as much soil as possible (more tons = more $s). Of course field surveys (and other support areas) would need to cooperate as well (ICDF hours of operation, etc.). The time of year the project occurs could drive this process also (onset of winter/spring, rain, etc.).	This is part of the contracting process for which Bechtel is responsible. A great deal of thought and planning is going into the contracting requirements with consolidation of similar activities (i.e., excavation, transportation) under consideration for the entire environmental restoration program.
33	5.8.1	5-8	Last Sentence: Title of table should be moved to the next page.	The format has been corrected.
34	5.11	5-12	Entire Section: This section needs additional text explaining the additional types of materials to be generated by the project including grubbing debris, air monitoring filters, etc.	Added vegetation and filters to the list. To note, the list is intended to be illustrative and not necessarily exhaustive of all types of waste materials.
35	5.12	5-13	Entire Section: The first goal of a decontamination (decon) program is to avoid having to decontaminate at all, wherever possible. To that end, please add language to the effect that all support areas will be located	Text pertaining to mitigating the spread of contamination has been added throughout the

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			all, wherever possible. To that end, please add language to the effect that all support areas will be located such that downwind contamination potential will be minimized. In addition, please describe the components of the listed "decontamination pads" and whether or not (or how) these units can be deconned between uses. Also, when using "plastic" as a decon pad, please describe the mil and type of plastic envisioned, the base/sub-base established below the plastic (to minimize loss of integrity), and whether or not these articles were included in the Appendix L waste material volume calculations.	contamination has been added throughout the document. The subject of decontamination is covered by the project HASP and will not be duplicated here.
36	Appendix A	Sheet T-2	Symbol Key: Please add a symbol for the lava bed/basalt outcrops.	Symbol for the lava bed/basalt outcrops has been added to the key.
37	Appendix A	Sheet C-1	Sequencing of soil removals (upwind/downwind location discussions) between adjacent "ARAs" should consider relative (potential impacts). For example, what would be the effects on a "clean" ARA-01 if the area of ARA-23 (immediately west of it) were subsequently remediated with a "wind event"?	Additional discussion pertaining to the sequencing of soils has been added to Section 5.4 of the main text in the work plan. The activities will be closely monitored to ensure that the work progresses in a fashion that will mitigate the spread of contamination from an unremediated area onto an area that has already been remediated.
38	Appendix A	Sheet C-2	This area of ARA-23 represents the furthest downwind area. It is suggested, for reasons of downwind deposition of upwind areas, that this area be saved for the end of the project.	Additional discussion pertaining to the sequencing of soils has been added to Section 5.4 of the main text in the work plan. The activities will be closely monitored to ensure that the work progresses in a fashion that will mitigate the spread of contamination from an unremediated area onto an area that has already been remediated.
39	Appendix A	Sheets C-3, C-4, and C-5	Same upwind/downwind comment for these areas. Sheet C-5: please clarify what Note 1 references. In addition, please offer an explanation if other CERCLA storage units are being referenced by Note 3 since all CERCLA storage units depicted are outside of the excavation boundary.	Refer to above responses pertaining to the resolution for the upwind/downwind comment. Note 1 on C-5 refers one to look on sheet C-9 for any remaining site structures and utilities since

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				they are not shown on C-5. Note 3 refers to the only CERCLA storage units shown on the drawing located southeast of ARA-I.
40	Appendix A	Sheet C-6	Please darken Area A Soil Stockpile area boundary. Also, please describe the area (rectangular) that is present southeast of Area A.	The Area A Stockpile area boundary has been darkened. The rectangular area southeast of Area A should not be there and has been removed from the drawing.
41	Appendix A	Sheets C-6, C-7, C-8, and C-9	Identical upwind/downwind comments for all areas. Sheet C-8: please provide an explanation of the procedure envisioned to excavate around the junipers. Note 3 denotes the presence of existing brush piles yet the drawing does not depict piles.	Refer to above responses pertaining to the resolution for the upwind/downwind comment. Since the initial excavation at ARA-12 is only 3", hand digging will most likely be the procedure used to excavate around the junipers. A discussion pertaining to taking care in excavating around the junipers including the use of hand digging has been added to the text in Section 5.4.2 of the main document. The brush piles referenced by Note 3 on C-8 have previously been removed. The note has been removed from the drawing.
42	Appendix C 3.2	3-2	Last Paragraph, Second to Last Sentence: Please indicate additional sources of standby and downtime such as high winds, adverse weather, ICDF hours of operation, etc.	Comment noted. The additional sources of downtime have been inserted into the document.
43	Appendix C 3.3	3-2	First Paragraph: Please see earlier comments regarding the use of the GPRS after the first layer of soils are removed. Also, please clarify if hand digging around an exposed basalt outcrop is envisioned to be the first simplistic method utilized.	Comment noted. Soil removal/sequencing is addressed in Section 3.8 (see resolution to Comment 58). At this point it is unclear which method will be utilized first to remove soil from around a basalt outcrop. This will be evaluated on a case-by-case basis. It will be up to the

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				subcontractor performing the work as to which method to employ in the soil excavation.
44	Appendix C 3.3	3-2	Last Paragraph, Second to Last Sentence: Please change the year to 2003.	The year was changed to 2003.
45	Appendix C 3.4	3-3	Second Paragraph, Last Sentence: A random grid is sufficient for most of the pond. However, it is recommended that biased sampling be performed in the area near the pond inlet, where the contaminant concentrations are higher.	The third sentence of the paragraph already makes the statement that biased samples will be collected at the pond inlet, in addition to the random grid sampling.
46	Appendix C Figure 3-2	3-5	Please correct legend to state that the Ag-108m contour is 0.75 pCi/g.	Comment noted. Legend has been corrected to read 0.75 pCi/g.
47	Appendix C 3.5	3-7	First Paragraph, Last Sentence: Please indicate the possible selenium location on Figure 3-2 to ensure this area is covered by the removal effort.	After further review of the Track 2 data, it was discovered that this data value was from a validated data set, and it was flagged as "UJ." As such, it is considered a non-detect. The sentence was changed to read as follows: "...selenium at 2.7 mg/kg was identified from 0.76 to 0.9 m (2.5 to 3 ft) at a single location on the east bank of the pond area; however, based review of the Track 2 data limitations and validation report, this value is identified as a non-detect.
48	Appendix C 3.5	3-7	Second to Last Sentence: If there is a possibility that 3-in. lifts would remove the contamination, this effort should be completed first, followed by a field screen of the area to see if an additional 3-in. lift is necessary.	The first part of this paragraph explains that a 3-in. lift will be removed from the entire ARA-12 area as defined by the excavation boundary (0.75 pCi/g Ag-108m isopleth). The sentence pertaining to the additional 3 in. lift being performed prior to

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				performing the field screening measurements has been deleted.
49	Appendix C 3.6	3-7	First Paragraph: It is again confusing (see specific Comment Number 5) as to whether the windblown contamination areas surrounding the ARA-I and ARA-II facilities is 42 acres or 240 acres, as both numbers are used in this paragraph. Please clarify if the 42-acres consists of the original boundaries of the site and the 240 acres is the windblown contamination, of vice versa.	The ARA-23 CERCLA site is defined as a 240-acre, windblown contaminated site. The portion of the ARA-23 site that exceeds the remedial action goal is estimated at 42 acres. In order to eliminate confusion, the reference to the 240 acres has been deleted from the text.
50	Appendix C 3.6	3-7	Last Sentence: Reference should be "Section 3.7."	Comment noted. Text has been changed.
51	Appendix C 3.6	3-9	First Paragraph, Seventh Sentence: Please provide a brief explanation (or a reference to where the information can be found) for how depth distribution of the contaminants will be made by HPGe measurements.	The following text has been added: "Additionally, estimates of the depth distribution of the remaining contamination will be made from the HPGe measurements as described in Appendix O of the OU 5-12 Phase II work plan (DOE-ID 2003)."
52	Appendix C 3.7	3-9	First Paragraph, Second Sentence: Please clarify if this volume of contaminated rock is a volume of "free" rocks "showing" and/or a volume anticipated being uncovered and worked-free during soil removal operations.	The volume represented here is based upon rocks that are located on the surface and readily visible. The text has been clarified to reflect this.
53	Appendix C 3.7	3-9	This section is titled large rock and debris. Please provide information on small rocks (i.e., small rocks will be decontaminated or disposed of with the soil). Please also provide information on the types of debris that is expected to be encountered during the project. The section only covers rocks, although the title is large rocks and debris.	Clarification has been added to the text that the volume attributed to the presence of small rocks encountered during excavation has been included in the total soil volume calculation. Additionally, the title of the section has been changed to "Handling of Large Rock." The inclusion of debris in the section title was unintentional.

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54	Appendix C 3.8	3-10	This section is the most-likely location within the text to elaborate on the waste soil sequencing strategy in consideration of the "upwind/downwind" discussions presented earlier within these comments.	Comment noted. Several changes have been made to Section 3.8 to address the good work practices that will be employed during the soil removal such as working from clean-to-dirty, and sequencing the removal from the most upwind section towards the downwind sections.
55	Appendix C 3.8	3-10	First Bullet: Equipment decontamination should be performed as necessary so as not to cross-contaminate areas.	As laid-out in this section (bulleted list) equipment will be decontaminated prior to removing it from one CERCLA site to the next to avoid spreading of contamination to other areas.
56	Appendix C 4.1	4-1	Additional suggestions regarding the waste minimization goal, versus contractor $/ton payment basis: • Provide a substantial safety incentive for excellent lost-time/workdays record; • Early finish bonus (each project area or entire project); • Bonus for "no dragout/spill retrieval" events; and • Single mobilization/demobilization for all targeted WAG 5 remedial areas.	Section 3.2 better addresses the procurement approach. As such, the following was added to the bulleted list in Section 3.2: • Provide incentives in the contract for excellent safety record during project execution, and/or early finish bonus
57	Appendix C 4.1	4-1	First Sentence: Although several factors are listed, it would also be supportive to mention which of these factors weigh in more in the efficiency of soil removal. The order of importance would be useful in determining how efficient the soil minimization strategy is. A brief discussion here would be helpful.	The text of Section 4.1 has been modified to identify each of the elements listed as primary factors in efficient soil removal planning and execution. At this point, neither of the four elements are considered to outweigh the other; however, as the actual soil removal operations get underway, we will be better able to evaluate which, if any, play a bigger role in the efficacy of the

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				operations.
58	Appendix E	Entire File	Please explain what provisions will be made to excavate rocks when encountered in a remedial soil area (equipment to be used, depth of excavation, survey frequencies at depth, etc.).	Text pertaining to the excavation of rocks has been added to Section 5.4.3. Decontamination and surveying of rocks had been considered as outlined in this engineering design file. However, there are numerous technical difficulties associated with the aspects of surveying porous materials such as basalt and cost issues surrounding decontamination not to mention the generation of secondary wastes that make the approach not feasible. Therefore, the rocks will be considered contaminated, excavated, and disposed with the soils at the ICDF.
59	Appendix E 3.0	3	If the majority of the rocks are in piles, one waste minimization technique could include removal of the rocks from the tops of the piles and screen them for free release since 90% of them are free from contamination.	Refer to the resolution for the previous comment.
60	Appendix F		ARA-23: ARA-I Facility: Please state if the highly contaminated material stored in the area is the CERCLA storage unit.	Statement added indicating the highly contaminated material stored in the area is the CERCLA storage unit.
61	Appendix F		ARA-23: ARA-II Facility: Please indicate in the work plan if the asphalt will be screened for disposal in the INEEL commercial landfill or the ICDF. Since there is no discussion of asphalt removal in the work plan, please provide further information in the appropriate section.	Text pertaining to the excavation of asphalt and disposal along with contaminated soils at the ICDF has been added to Section 5.4.3.
62	Appendix G 1.1	1-1	Second Paragraph, Third Sentence: Figure 2-4 has not been provided as referenced.	Reference to Figure 2-4 has been removed.
63	Appendix G 3.1	3-1	First Paragraph, Second Sentence: Typographical error, please correct stratum 2 to indicate the area of the pond.	Comment noted. Error fixed.

INEEL
Idaho National Engineering & Environmental Laboratory

PROJECT DOCUMENT REVIEW RECORD

DOCUMENT TITLE/DESCRIPTION: *Waste Area Group 5 Remedial Design/Remedial Action Work Plan, Phase II*

DATE: March 25, 2003 **REVIEWER:** State of Idaho Department of Environmental Quality

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	3.1		pond.	
64	Appendix G 3.3	3-5	Second Paragraph, Second-Last Sentence: No maps provided that depict alternate sampling locations (B1-A).	Alternate sampling location B1-A has been added to the map in Figure 3-2.
65	Appendix G 3.3	3-5	Last Paragraph: The sentence pertaining to the use of isopropanol needs further explanation.	The statement has been omitted.
66	Appendix J	J-1	Third Paragraph: Please state if emission factor calculations were performed for the movement of the GPRS unit during remediation.	The movement of the GPRS will have such a minimal effect on emissions in comparison to the actual excavation activities that it was not included in the calculations.
67	Appendix L L1.5	L-3	It is unclear within this document whether the rock volume has been added to the soils calculations for each area. In addition, no line item/provision for the area grubbing or existing shrub stockpiles is evident. Please explain or modify accordingly.	The text and tables have been corrected to include the rock volume and to clarify that soil volumes include vegetation. The actual vegetation volume is negligible in comparison to the soils to be excavated. Therefore, no correction to the volumes has been made.