NDEP Responses to EPA Review comments - NV/ARC Deferral Documents
August 28, 2017

EPA comments in plain font *NDEP responses in italics*.

GENERAL COMMENTS

A. Remedy Selection

1. Groundwater (OU1): The Framework (Section III.c.vi) (Page 10) appears to pre-select an on property only groundwater remedy with a presumption of monitored natural attenuation off property. Although the Framework states that if there is a conflict between the Framework and the IAOC that the IAOC will control, the RIFS SOW (which the IAOC incorporates by reference) is lacking in detail about OU1 (Groundwater) feasibility study and remedy selection process. Further, by stating that the RI/FS will comply with "*applicable sections of the NCP*" the IAOC (Section VIII.B.57) (Page 25) leaves open to interpretation whether sections of the NCP requiring restoration of groundwater to beneficial use, and requiring attainment of MCLGs in groundwater remedial actions, will be considered *applicable* by NDEP and ARC. Therefore, EPA is concerned that based on the language in the Framework that an OU1 remedy has been pre-selected that may not prove to be CERCLA protective.

NDEP Response: NDEP has not pre-selected an on-mine property only groundwater remedy or presumed a remedy of monitored natural attenuation off-mine property. NDEP has indicated that it will prioritize and sequence an on-mine property groundwater remedy implementation ahead of off-mine property groundwater remedy implementation. As NDEP has discussed previously with EPA, translating the broad requirement of aquifer restoration into a specific measurable and enforceable requirement (i.e. the specific subsurface volume of groundwater that must be restored, to what concentration, and within what period of time) requires detailed consideration of current and future aquifer uses in the Mason Valley (including agricultural pumping). NDEP has negotiated a plan with ARC to directly address the main sources of groundwater contamination first. After that work is underway, NDEP will be able to make a better informed decision about where action to achieve aquifer restoration should be required and under what time frame. The IAOC includes provision for interim measures to addressing potential migration of contaminated groundwater that may result in any exposure while response activities proceed.

Use of the term "applicable" should be taken at face value. The determination of applicability will be made by NDEP. Many parts of the NCP (e.g. 40 CFR 300 Subparts B, C, D, J, and L) are not applicable to response actions under a deferral scenario. Portions of Subparts E and F (e.g. 40 CFR 300.400(c), (e), (f), 40 CFR 300.425) are not applicable to response actions under a deferral scenario, and even some remaining portions of the NCP which are generally applicable may only be applicable to certain phases of response activities at the Site.

In response to the concern about whether the remedy will be selected in accordance with criteria and a process that are CERCLA-protective, NDEP proposes to use language

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defining CERCLA-Equivalent RI/FS and CERCLA-Protective Cleanup from the Deferral Agreement (included below) in the IAOC. Before spending additional resources re-drafting the IAOC to incorporate this definition, NDEP requests that EPA make a specific determination on whether it is in conceptual agreement that this change would address concerns regarding CERCLA-Protectiveness.

"D. CERCLA-Equivalent RI/FS and CERCLA-Protective Cleanup

1. NDEP will implement a CERCLA-equivalent RI/FS for the entire Site. The RI/FS should define the severity and areal extent of contamination both on the mine property and in soils and groundwater off the mine property. The boundaries of the Site will be determined with consideration of contaminant migration from the mine property as well as on-property contamination. The CERCLA-equivalent RI/FS and remedial selection process will comply with sections 121(b) and (d) of CERCLA and the NCP at 40 C.F.R. §§ 300.430(d-f).

2. NDEP will implement a CERCLA-protective cleanup of the Site. The response action will be protective of human health and the environment, as generally defined for individual human exposure by an acceptable risk level for carcinogens between 10^{-4} and 10^{-6} (using 10^{-6} risk level as the point of departure for determining remediation goals for alternatives) and for non-carcinogens a Hazard Index of 1 or less, and no significant adverse impacts to ecological receptors. NDEP will give preference to solutions that will be reliable over the long term. In addition, NDEP will ensure that any remedy selected at the Site will comply with all applicable or relevant and appropriate federal requirements, as defined in CERCLA, the NCP, and EPA Guidance, and more stringent applicable or relevant and appropriate State requirements to the maximum extent practicable under NDEP's state authorities or as otherwise allowed under CERCLA, the NCP, and Nevada state law.

An evaluation of environmental media, exposure pathways, and human and ecological receptors will be investigated and assessed as part of the comprehensive risk assessment conducted at the Site. As assurance that the remedy selected for implementation at the site will be a CERCLA-protective cleanup, EPA expects that:

- NDEP will select a response action protective of human health and the environment, as generally defined by a 10-4 to a 10-6 risk range (using 10^{-6} risk level as the point of departure for determining remediation goals for alternatives) for carcinogens and a Hazard Index of 1 or less for non-carcinogens consistent with the NCP at 40 C.F.R. § 300.430(e)(2)(i)(A); See, 1995 Guidance, p.7.

- NDEP will ensure that the remedy selected at the Site (1) complies with federal ARARs and more stringent state ARARs under NDEP's state authorities, unless an ARARs waiver is justified consistent with CERCLA's requirements and Nevada law, (2) controls or eliminates sources, and (3) is effective and reliable, consistent with CERCLA sections 121(b) and (d), 42 U.S.C. §§ 9621 (b) and (d).

NDEP will ensure that groundwater is restored to its beneficial use, consistent with the NCP, 40 C.F.R. § 300.430(a)(1)(iii)(F), unless an ARARs waiver is justified consistent with the requirements of CERCLA section 121(d)(4)(c), 42 U.S.C. §

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9621(d)(4), 40 C.F.R. § 300.430(f)(1)(ii)(C), or NAC 445A.22725. NDEP acknowledges that portions of the impacted aquifer have been and are used for drinking water. The extent to which Maximum Contaminant Level Goals or Maximum Contaminant Levels for groundwater established under the Safe Drinking Water Act, 42 U.S.C. § 300f et seq., are considered legally applicable or relevant and appropriate requirements under section 121(d)(2)(A)(i) of CERCLA for any portion of the affected groundwater aquifer that is a current or potential source of drinking water will be determined based on the factors in 40 C.F.R. § 300.400(g)(2) during the selection of remedial action goals in the feasibility study and at remedy selection. 40 C.F.R. §§ 300.430(e)(2)(i)(B),(C)."

NDEP notes that under the Deferral Agreement, EPA retains the authority to make determinations of whether actions taken are not CERCLA-*Protective as a basis for terminating the Deferral Agreement.*

2. Pit Lake (OU2): The Framework (Section III.b.vi) (Page 9) appears to pre-select a no-action remedy for the Pit Lake when it states: "Subject to the remedy selection process, applicable water pollution control regulations, and appropriate access restrictions, NDEP will not require reclamation or active management of water in the pit." Although the Framework states this decision is "subject to the remedy selection process," the RIFS SOW (Section 7.6) (Page 15) appears to require no remedy selection process when it states: "a baseline HHRA is not required for OU-2, as risks are limited to the physical." The conclusion that a baseline HHRA is not required for OU2 and that there are no chemical hazards, only physical hazards, suggests a no-action remedy has been pre-selected, which may not prove to be CERCLA protective.

NDEP Response: The RIFS SOW does not indicate that a baseline HHRA is not required for OU-2, but it does correctly state that current NDEP pit lake guidance applicable to active mining operations would not require a baseline HHRA. NDEP will evaluate the technical memorandum to be submitted by ARC that reviews lack of public access and incomplete exposure pathways to the pit lake and NDEP will make a determination as to the required content of the HHRA for the pit lake. NDEP plans to evaluate potential exposure scenarios and associated potential risks from the Site in accordance with EPA's Risk Assessment Guidance for Superfund (RAGS), including RAGS Part C, Risk Evaluation of Remediation Alternatives.

NDEP again notes that under the Deferral Agreement, EPA retains the authority to make determinations of whether actions taken are not CERCLA-*Protective as a basis for terminating the Deferral Agreement.*

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B. CERCLA Protectiveness (Risk Assessment)

1. For a remedy to be CERCLA protective it must address risk consistent with CERCLA and the NCP. To address risk consistent with CERCLA and the NCP, risk must be measured consistent with CERCLA and the NCP. The subject documents include provisions inconsistent with the NCP and EPA guidance with respect to the risk assessment process.

NDEP Response: See below responses to specific concerns regarding the risk assessment process.

2. While the IAOC (Section VIII.B.57) (Page 25) states the RI/FS shall be completed in accordance with "the applicable sections of the NCP" (the intent of this language is unclear: which sections of the NCP are not applicable?) the RIFS SOW (Sections 6.5 and 7.6) (Page 10 and Page 14) states that the risk assessments "will consider … institutional controls, and groundwater use restrictions." This approach is contrary to the NCP and EPA guidance in which the baseline risk assessment looks at potential, not just actual, exposure. The NCP (300.430(a)(2)(d)(4) states that the baseline risk assessment shall "characterize the current and potential threats to human health and the environment that may be posed by contaminants migrating to ground water." EPA Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (1988) states (Page 3-20): "Baseline risk assessments provide an evaluation of the potential threat to human health and the environment in the absence of any remedial action."

NDEP Response: See above regarding intent and use of the term "applicable." NDEP believes that EPA is misinterpreting the definition of CERCLA Protectiveness, and that consideration of institutional controls and groundwater use restrictions is a practical and appropriate practice in determining potential exposure scenarios during the human health risk assessment.

3. Explicitly under the Framework, and by inference from technical conclusions argued in the RIFS SOW, Anaconda process wastes (specifically vat leach tailings aka VLT) may be used as cover material for the OU8 remedy (which NDEP calls the ROD-1 remedy) without adequate characterization and risk assessment being performed on the material. While VLT has been used in past as interim cover material in removal actions at no time did EPA represent or conclude that this cover material would be acceptable for use in final remedial actions. Further, the large quantities of VLT present on the ground surface have not been fully characterized, especially for the extent to which they have impacted groundwater.

NDEP Response: NDEP intends for the RD/RA Workplan to propose necessary evaluations for use of potential cover material, including the VLT. The intent of the language is not to preclude or pre-select use of the VLT as cover material. Although extensive characterization of OU-1 has occurred at the Site, NDEP is not aware of specific groundwater data that indicates VLT have actually impacted groundwater.

4. To make a determination of CERCLA protectiveness on Tribal lands it is

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necessary that risk assessments under the RI/FS SOW include Tribal exposure scenarios.

NDEP Response: NDEP agrees that under certain circumstances, it will be appropriate to include specific Tribal exposure scenarios in human health risk assessments performed at the Site. In some cases, a qualitative, rather than quantitative evaluation of exposure to tribal receptors may be warranted. This was the determination made by EPA for the OU-8 risk assessment and may be appropriate for other Operable Unit risk assessments.

C. Tribal Participation

1. Walker River Paiute Tribe: No provision is made for financial or technical assistance to the Walker River Paiute Tribe. In fact, the IAOC states (Section E.72.b.) (Page 32): "Respondent shall not be responsible for payment of any Future Response Costs incurred by the Division in providing technical assistance to … including, without limitation. The Walker River Paiute Tribe…" Given that the Walker River Paiute Tribe's land and cultural resources may be negatively impacted by the Site, provision must be made to fund the Tribe to hire its own staff and/or consultants to participate in Site decision-making, and provision must be made to obtain the Tribe's concurrence on remedies selected (including no action remedies) on Tribal land.

NDEP Response: NDEP is not aware of the specific basis for the determination that the Walker River Paiute Tribe's land and cultural resources may have been negatively impacted by the Site. Nonetheless, NDEP proposes to work with the Walker River Paiute Tribe and Atlantic Richfield to recommend an appropriate level of financial assistance for the WRPT to participate in Site decision-making and proposes to amend E.72.b to remove the cited language. The current language in E.72.a includes provision for ARC to fund costs incurred by the Division during implementation of the Community Involvement and Participation Plan (CIP), which NDEP interprets to include financial support for technical assistance described in the CIP, including assistance to the community and the WRPT.

2. Yerington Paiute Tribe: While provision is made for financial or technical assistance to the Yerington Paiute Tribe, it must be made clear that the Tribe may hire its own staff and/or consultants (and have their costs reimbursed or receive up-front funding) to participate in Site decision-making, and provision must be made to obtain the Tribe's concurrence on remedies selected (including no action remedies) on Tribal land. Under IAOC Section E.72.b. (Page 31) it's left unclear whether the Division will provide the Yerington Paiute Tribe with financial assistance (which the Tribe may use to hire its own staff and/or consultants) or direct technical assistance in the form of NDEP staff time.

NDEP Response: NDEP proposes to provide financial assistance for the tasks, in addition to any separate technical assistance, coordination, and consultation provided by NDEP staff and management.

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D. Technical Conclusions

1. OU1 (Groundwater) / Plume Stability: The RIFS SOW (Section 6.1(b)) (Page 7) gives what EPA considers an incomplete list of technical factors that must be considered in performing a technically defensible plume stability analysis. The technical factors listed in Section 6.1(b) include: statistical analysis; and movement or stability of centers of mass. EPA recommends that for a technically defensible plume stability analysis, and for a CERCLA protective remedy, the following methods should be employed:

    a. Qualitative methods including: concentration vs. time plots; concentration vs. distance plots; and concentration isopleth maps.

    b. Statistical methods including: well-by-well trend analysis using Mann- Kendall and linear regression techniques.

    c. Plume-based methods including: plume area; plume mass; plume center of mass; and mass flux.

    NDEP Response: NDEP agrees that all the methods listed should be used as part of a technically defensible plume analysis. These methods can be incorporated into the final version of the Plume Stability Technical Memorandum and into future performance evaluations of any groundwater remedy implemented at the Site.

2. OU2 (Pit Lake): The RIFS SOW (Section 7.6) (Page 15) concludes that there are only safety concerns (steep cliff walls, etc.) with the Pit Lake, no human health concerns. The RI and Baseline HHRA have yet to be performed for OU2, therefore this conclusion is premature.

    NDEP Response: See response to comment A.2 above.

3. OU6 (Oxide Tailings aka VLT): The RIFS SOW (Section 7.4) (Page 14) concludes a "significant number" of samples have been collected in this OU and that further characterization is unnecessary. EPA disagrees. The number of soil samples collected to date is small in comparison to the vast area covered by this material (placed directly on the land surface) and the volume of material. Further, the extent to which this material has leached and may continue to leach to groundwater must be determined. As the RI has yet to be performed for this OU, the conclusions in the RIFS SOW are premature.

    NDEP Response: The actual text in the RIFS SOW states that "further characterization work is not expected for this OU", not that further characterization work is unnecessary. NDEP will review the RI Sampling and Analysis Plan for this OU and make a determination as to whether additional characterization to address leaching or other concerns. NDEP notes that the number of samples collected to characterize Operable Unit 8 Heap Leach Pads for the Remedial Investigation was scaled in part based on the relatively homogenous nature of these materials.

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4. OU7 (Wabuska Drain): The RIFS SOW (Section 6.4) (Page 9) concludes that Site- related contamination is limited to areas south of Luzier Lane. As the RI is still in process, this conclusion is premature.

   NDEP Response: The actual text of the RIFS SOW states that "elevated concentrations of COI (constituents of interest) originating from site sources appear to be limited to the drain area south of Luzier Lane, and that north of Luzier Lane COI concentrations are at background levels." NDEP has proposed a process for resolving the extent of Site-related contamination, including whether it extends on to Tribal Land, in the MOU between NDEP, EPA and the Yerington Paiute Tribe.

E. Definitions

1. Definitions of "CERCLA Protective" should be standardized in the various deferral documents. The definitions given in the Draft Deferral Agreement and the IAOC differ from one another. One example is that the Draft Deferral Agreement (Section II.D.2) refers to a 10(-6) point of departure for carcinogens whereas the definition in the IAOC (Section III.15.h) (Page 9) does not refer to a point of departure. In making determinations of CERCLA protectiveness, EPA will preferentially use the definition that appears in the final deferral agreement between EPA and NDEP.

   NDEP Response: See NDEP Response to Comment A.1.

2. Definitions of "Site" should be standardized in the various deferral documents. The term "Site" is used in various inconsistent ways, and is particularly confusing when groundwater is being discussed. Specifically, the definition of "Site" in the IAOC (Section III.15.vv) (Page 12) appears to correctly include the phrase "where contaminants have come to be located" yet elsewhere the IAOC and RIFS SOW commonly refer to "On-Site" and "Off-Site" groundwater.

   NDEP Response: NDEP proposes to modify the IAOC to use the terms "on-property" and "off-property" groundwater to distinguish groundwater located beneath the extent of the mine site property boundary and groundwater located outside of the mine site property boundary. The mine site property boundary would be defined as the area depicted on Figures 1 and 3 of the OU-8 Record of Decision. The term "Site" would be used as described in EPA's comment.

F. Schedule

1. From the RIFS SOW schedule (Section 10.2) (page 19) it appears that the combined FS for OU1, 3, 4a, 4b, 5, 6, and 7 would not be completed until 42 months after the effective date of the IAOC. Therefore, per the Framework, an on-property groundwater remedy would be selected in 2021 at the earliest with an off-property groundwater remedy selected sometime thereafter, or perhaps never. Given that the OU1 Groundwater RI is essentially complete and that the FS process has already begun, there is no technical reason to wait until 2021 to complete the FS process, which has already begun, and select an OU1 remedy prior to 2021.

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NDEP Response: NDEP disagrees. As a likely primary source area for groundwater contamination at the Site, it is necessary to complete the FS for OU-4a and adjacent OUs so that remedies at the northern end of the Site are comprehensive and consider plans for adjacent OUs. The OU boundaries were set up by EPA based on common historical operating activities and were generally applicable to completion of the RI for each OU. NDEP has determined a comprehensive approach to completing FS, ROD and remedy selection for geographic areas of the Site (rather than OU by OU) will result in a more durable and permanent Site remedy.

SPECIFIC COMMENTS

G. Interim Administrative Settlement Agreement and Order on Consent

1. Page 4, paragraphs 2 and 3: Paragraph 2 recites that the Division (NDEP) is exercising its jurisdiction under CERCLA and the Nevada Revised Statutes (NRS). In paragraph 3, Respondent (ARC) consents to jurisdiction only under the NRS. ARC should consent to jurisdiction under each authority exercised by NDEP.

   NDEP Response: NDEP agrees and will work with ARC to modify the document.

2. Page 5, Section I, paragraph 6: Strike the words "adequate level of" from line 2. The remedy must provide CERCLA protectiveness with no qualification.

   NDEP Response: NDEP does not understand the concern over this language, but agrees to strike it in the interest of moving forward.

3. Page 7, Definition "h." "CERCLA Protective": This language is an inadequate statement of "CERCLA protective." The 10-4 to 10-6 risk range for carcinogens should be stated as the point of departure for determining remediation goals; it is inappropriate to cite to the ARARs waiver section of the NCP in defining protectiveness; "reasonable progress" towards achievement of Performance Standards is not protective; eliminating existing, but not potential, exposure pathways is not protective. This definition should be rewritten to be consistent with the characterization of "CERCLA protective" in the Draft Deferral Agreement between EPA and NDEP (Draft DA).

   NDEP Response: See NDEP Response to Comment A.1.

4. Page 8, Definition "k.", "Deferral Agreement": Strike the language after "(iii)" The Draft DA contains no limitation on EPA's retained authority to terminate the Deferral Agreement.

   NDEP Response: NDEP review of paragraph VI.A of the Deferral Agreement indicates that there are specific criteria EPA is required to evaluate before making a determination to terminate the Deferral Agreement.

5. Page 12, Definition "vv." "Site": The definition of "Site" is adequate, but the term is used inconsistently in this draft IAOC and in the draft RI/FS SOW. For example, in the draft IAOC on page 13, paragraph 16, the Site is described as the "mine and

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extraction facility." A separate term (e.g. "Property") should be defined for the mine property and the term Site used to encompass the areal extent of contamination.

NDEP Response: See NDEP Response to Comment E.2.

6. Page 15, paragraph 23: EPA does not necessarily agree with this, or any other, of the Findings of Fact, which tend toward argument or characterization of facts (e.g. "multiple large volume spills and releases.") EPA recommends that NDEP and ARC remove argumentative and conclusory statements from these documents.

   NDEP Response: Comment noted. NDEP is primarily concerned with EPA comments that would result in a threshold basis for a deferral decision. If there are specific characterizations or language that would result in EPA not granting deferral, please inform NDEP of those specific language edits and proposed replacement language.

7. Page 17, paragraph 34: See immediately previous comment, with reference to "the downgradient extent of mine-impacted groundwater."

   NDEP Response: See NDEP Response to Comment G.6.

8. Page 25, paragraph 57: Sentence beginning with "For each grouping of CMUs identified in the RI/FS SOW…": "Cleanup" or "restoration" should be included in the alternatives to be evaluated for remedial action. The alternatives actually listed imply that restoration is excluded a priori from consideration.

   NDEP Response: NDEP agrees and will work with ARC to make the proposed change. NDEP notes that the RIFS and remedy selection path for OU-8 screened out restoration technologies such as removal and treatment of HLP solids in the Initial Screening Evaluation Summary of Remedial Technologies for the Arimetco OU.

9. Pages 25-26, paragraph 59: This paragraph is confusing and should be rewritten or omitted. To the extent it pre-selects Institutional Controls as remedial action it is pre- decisional and inappropriate. If it purports to characterize the criteria for remedy selection, it is incomplete.
   NDEP Response: NDEP does not agree that the paragraph pre-selects Institutional Controls as a remedial action, it merely acknowledges that, as part of remedy selection, NDEP will consider any ICs in place. NDEP will work with ARC to make sure that the remedy selection criteria are complete.

10. Page 26, paragraph 60: NDEP does not require permission to provide copies of deliverables to EPA. While EPA will not retain concurrence or approval authority for deliverables provided by ARC under this IAOC, EPA retains the authority to request, and receive, copies any and all project documents from NDEP at any time during the post-deferral site cleanup.

    NDEP Response. The purpose of this language is merely to indicate that NDEP has the option of providing copies of deliverables to EPA, not that NDEP needs permission to do so, or that EPA cannot also request and receive project documents

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from NDEP.

11. Page 29, paragraphs 67-71: The IAOC describes an approach and factors to be considered by the State in determining whether Groundwater Interim Measures should be required in advance of a final groundwater remedy. If response to off-property groundwater is to be delayed pending completion of remedial action for on- property groundwater, as the Framework Agreement provides, then NDEP must retain the authority to require active groundwater remediation measures in the event the plume threatens to migrate during the indefinite "interim" period to previously uncontaminated areas of the aquifer and endangers communal or Tribal resources.

    NDEP Response: Under the IAOC, NDEP retains its independent authority to order such work either through administrative orders or injunctive relief, and ARC will retains its rights to contest those requirements.

12. Pages 31-32, paragraph 72(b): The technical assistance provided to the Yerington Paiute Tribe (YPT) must be in the form of cash grants, rather than, as is implied, services in kind. The YPT must be enabled to retain and compensate outside professionals and its environmental manager. The level of funding for YPT is too restricted for the duration of Work under ROD-1 and should be equal to the level of funding historically provided by EPA. Similarly, funding for the Walker River Paiute Tribe should continue at the historical levels provided by EPA.

    NDEP Response: No such thing is implied in the cited language. See NDEP response to Comment C.2.

13. Page 34, paragraphs 77 and 79: The first sentence of paragraph 77 ("…outside the ROD-1 Boundary…the Division may select further response actions as necessary…") seems inconsistent with the last sentence of paragraph 79 ("…nothing in this Settlement shall obligate Respondent to perform further response actions outside of the ROD-1 Boundary…"). Clarification is necessary.

    NDEP Response: The intent of the first sentence is to preserve NDEP's ability to select additional response actions at the Site. However, other than Groundwater Interim Measures, this order on consent does not obligate ARC to perform other selected response actions other than those included within the ROD-1 Boundary.

14. Page 37, paragraph 88: Approval of a deliverable by default is inconsistent with governmental authority and protectiveness. This should be changed to a good-faith commitment by NDEP for timely response or eliminated.

    NDEP Response: NDEP believes that it is incumbent on governmental agencies to provide timely responses to deliverables and it will do so.

15. Page 53, paragraph 136: The covenant from NDEP should be limited to the "Work," as defined in this document. Extension of the covenant to "the OUs and CMUs addressed by the Remedial Action" is overbroad and potentially misleading, since the ROD-1 Work impinges on multiple OUs/CMUs, wholly or partially, and the spatial extent of each is uncertain.

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NDEP Response: The practical implementation of the RD/RA for OU-8 will necessarily impinge on multiple OUs/CMUs.

16. Page 58, paragraph 151: See comment immediately above. Contribution Protection should extend to the "Work," but not to "the OUs and CMUs addressed by the Remedial Action."

    NDEP Response: See NDEP Response to Comment G.15.

H. Statement of Work for Site-Wide RI/FS

1. Page 4, Table 1: This schematic description of OUs (EPA) and CMUs (ARC) illustrates the overbreadth of the covenant and contribution protection contained in paragraphs 136 and 151 of the Draft IAOC and commented on immediately above.

   NDEP Response: See NDEP Response to Comment G.15.

2. Page 6, paragraph 6.1: This paragraph illustrates the inconsistent use of the term "Site" in these documents. In this paragraph, "Site" refers to the mine property while a new term, "Study Area," is used for the areal extent of potential groundwater contamination. Consistency is required for clarity.

   NDEP Response: See NDEP Response to Comment E.2.

3. Page 7, paragraph (b), "Plume Stability Technical Memorandum": The list of technical factors to be considered in the analysis is incomplete. See above (D.1.) under Technical Conclusions.

   NDEP Response: See NDEP Response to Comment D.1.

4. Pages 7-8, "Groundwater Monitoring Optimization Technical Memorandum": The sequence of plans and monitoring protocols should be clarified to confirm that at least one consistent well set will be maintained and monitored throughout all phases of remedy selection and implementation to ensure that comparable data are being evaluated.

   NDEP Response: NDEP agrees, but this is a clarification that can be addressed in the cited Memorandum.

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5. Page 9, paragraph 6.4 "OU-7 Wabuska Drain": EPA disagrees with the conclusory statements in paragraph 3 of this section. See above (B.6.) under CERCLA Protectiveness (Risk Assessment). Since the RI (and the HHRA) are incomplete, it is inappropriate to conclude that the extent of contamination originating from Site (sic) sources has been determined.

   NDEP Response: Please refer to NDEP response to Comment D.4.

6. Page 10, paragraph 6.5, "Risk Assessments for OU1…": See generally above comments on CERCLA Protectiveness (Risk Assessments). In this paragraph and elsewhere ARC short-circuits the risk assessment process for groundwater by pre-deciding, for example, that current uses and conditions define the universe of considerations for a baseline HHRA. See also pages 14-15 of the RI/FS SOW, "Risk Assessment for OU-2…." and above (D.2.) under Technical Conclusions, noting that statements in the SOW about the Pit Lake not posing human health concerns are premature.

   NDEP Response: The actual text (Page 10, section 6.5, 2nd sentence) indicates that the HHRA will consider current and <u>future</u> land-uses, as well as institutional controls and groundwater use restrictions. This can be clarified further as part of NDEP review and approval of the HHRA Work Plan. See also NDEP response to Comment A.2.

7. Page 20, Schedule, Line Item 25: This date for delivery of the FS Report for CMUs 1 and 3, noted as the priority areas by ARC, is more than 42 months (counting from Effective Date of the Order) in the future. This time frame can and should be compressed.

   NDEP Response: NDEP does not agree. See also NDEP response to Comment F.1.

I. Statement of Work for RD/RA of CMUs 2, 4, 5, 6, & 7

1. Section 1.2, 2nd bullet: The sentence refers to the remedial design and remedial action work as being "contemplated" under this SOW. EPA recommends using the word "required" instead of "contemplated."

   NDEP Response: The language of Section 3 (RD/RA Work Plan) is prescriptive with respect to what will be included in the RD/RA Work Plan. If EPA has requirements for additional items that should be include in Section 3, NDEP will consider that input. Use of the word "contemplated" in the bullet cited is understood as a general summary term and does not modify, reduce, or abridge the requirements contained in Section 3.

2. Section 1.3: The sentence states that the scope of the remedy includes the following activities which will be implemented "in general consistency with" the ROD. EPA recommends using the phrase "in compliance with" the ROD.

   Several specific elements of the remedial design were not specifically

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contemplated in the Interim ROD (e.g. design, location and operations of terminal pond; construction, and location interim and final stormwater collection facilities; and selection of cover material borrow source and cover thickness), therefore the Interim ROD for OU-8 does not have enough specificity to determine compliance for these areas.

3. Section 1.3: In part (a), the last sentence states that the ponds will be sized to accommodate no more than one acre of active evaporative surface area per two gallons per minute of drain-down fluid. In subpart (b), the 7th sentence states the same thing. These are design parameters. EPA recommends not embedding design parameters into the RD/RA IAOC SOW. Design parameters are more appropriate for inclusion in the RD Workplan.

   NDEP Response: NDEP agrees and will work with ARC to remove this specification from the SOW and revisit it during development and review of the RD.

4. Section 1.3, part (b): The fourth sentence includes among the work elements the closure of TENORM and other low-level radioactive materials. EPA notes that the OU-8 ROD does not include such an element, and committing to such an action via this IAOC SOW could be considered pre-decisional. TENORM material closure is also mentioned in Section 5.1, part (c). In addition, the last sentence states that adjoining portions of OUs 3, 4, 5 and 6 will be closed along with the HLP closures to the extent that efficiencies can be gained by including such areas. Whereas it could be considered acceptable pursuant to the CERCLA process to include such areas in the OU-8 closure to the extent that the areas are needed to accommodate the OU-8 remedy design, the OU-8 ROD does not otherwise select the remedy for those areas. This is also mentioned in Section 5.1, part (a).

   NDEP Response: NDEP notes that the text of the SOW indicates that presumed elements listed will be subject to review and approval and therefore not pre-decisional. NDEP will require that adequate characterization and documentation of decisions be performed to accommodate any part of OU-8 remedy design that impinges on adjacent portions of OUs 3, 4, 5, and 6.

5. Section 2.1, 1st sentence: The sentence states that NDEP has the lead responsibility for providing technical assistance to the Yerington Paiute Tribe. EPA notes that the Walker River Paiute Tribe also would need continued funding for technical assistance.

   NDEP Response: NDEP agrees and will work with ARC to modify this language to indicate that Walker River Paiute Tribe will receive technical assistance in accordance with the final Community Involvement and Participation Plan.

6. Section 2.1, 4th sentence: The sentence states that ARC's support "may" include providing online access to submissions and deliverables. EPA recommends using the word "shall" instead of "may."

   NDEP Response: NDEP has not yet determined whether NDEP or ARC will provide

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online access to submissions and deliverables. A final determination will be made in the final Community Involvement and Participation Plan after NDEP receives input on this issue from interested stakeholders.

7. Sections 4 and 5: Section 4.2 part (f) as well as Section 5.2 part (g) both include an Institutional Controls Implementation and Assurance Plan. EPA suggests that you could combine them and just have one ICIAP for OU-8.

   NDEP Response: NDEP anticipates that construction of the final CMU 4 and 5 FMS Ponds will be completed prior to final cover construction, therefore an ICIAP for the first portion of OU-8 will be needed. The final ICIAP could incorporate both areas into a single ICIAP.

8. Section 8.4, part (d), 2nd sentence: EPA recommends the following edit in order to further clarify the intent of the sentence, ". . . to an appropriate NDEP approved QAPP for other sampling and analysis work at the Site <u>that is applicable to the subject sampling</u>."

   NDEP Response: NDEP agrees and will work with ARC to make the suggested edit.

9. Section 8.4, part (e): Each of the subparts includes a specification for the type of measurements that will be used for the respective performance standards. EPA recommends providing such specifications in the RD Workplan rather than within this IAOC SOW.

   NDEP Response: NDEP considers the measurement descriptions included to be generic and not inappropriately limiting. If there are other measurements that EPA believes should be included, or any currently included that should not be, NDEP requests that EPA provide those suggestions.

10. Section 8.4, parts (f) and (h): It is unclear whether cap erosion would be monitored under the RA Monitoring Plan or under the O&M Plan. Specify which plan would include cap erosion monitoring.
    NDEP Response: Erosion would be monitored under the RA Monitoring Plan, as the purpose of the RA Monitoring Plan is to determine whether the Performance Standards (including minimizing erosion) are achieved.

11. Section 8.4, part (i): Add the following two subparts to the list of requirements to be included in the ICIAP: "<u>(3) Description of the institutional controls required by the ROD, including mechanisms, objectives, locations to be included, and agencies or parties involved in implementation; (4) Plan and schedule for implementing institutional controls, including required administrative or legal processes.</u>"

    NDEP Response: NDEP agrees and will work with ARC to include the suggested language.

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