

N62661.AR.002595
NS NEWPORT
5090.3a

LETTER AND U S EPA REGION I COMMENTS TO DRAFT FEASIBILITY STUDY FOR
DECISION UNIT 5-1 SITE 13 TANK FARM 5 NS NEWPORT RI
12/22/2011
U S EPA REGION I



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION I

5 Post Office Square, Suite 100
Boston, MA 02109-3912

December 22, 2011

Mr. Roberto Pagtalunan
NAVFAC MIDLANT (Code OPNEEV)
Environmental Restoration
Building Z-144, Room 109
9742 Maryland Avenue
Norfolk, VA 23511-3095

Re: Draft Feasibility Study for Decision Unit 5-1 at Site 13, Tank Farm 5

Dear Mr. Pagtalunan:

Thank you for the opportunity to review the *Draft Feasibility Study for Decision Unit 5-1 at Site 13, Tank Farm 5* dated October 2011 (FS). The FS presents the development and evaluation of remedial alternatives to mitigate unacceptable human risk associated with chemicals of concern in soil and groundwater at Site 13 – Decision Unit 5-1 at Tank Farm 5. EPA reviewed the document for completeness, technical accuracy, and consistency with EPA's *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA*. Detailed comments are provided in Attachment A. Comments on the Applicable or Relevant and Appropriate Requirements are identical to those provided as Attachment B to EPA's December 6, 2011 letter to you on the Tank Farm 4 draft Feasibility Study, recognizing, of course, that the titles should be changed to state Tank Farm 5 instead.

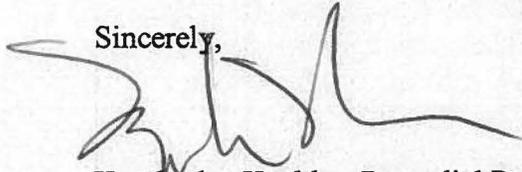
Please delete the references throughout the FS to Tank Farm 4 other than those pertinent to the Data Gaps Report discussions.

With respect to groundwater, the FS states that the presence of contaminants of concern (COCs) in groundwater above preliminary remediation goals (PRGs) can be attributed to natural sources of inorganics and the geochemical conditions in the aquifer rather than Navy operations. EPA questions whether other historical releases at Tank Farm 5 have altered the geochemistry in the DU 5-1 area such that the contaminants have been mobilized to the groundwater. Additional evaluation and discussion of this possibility is warranted before eliminating *in situ* treatment technologies that are capable of changing (or restoring) the geochemistry of the aquifer within DU 5-1.

The FS states that there is no defined source or plume, but that is not supported by the available data that indicate that the wells containing inorganic contaminants in excess of PRGs are all located at the oil-water separator (OWS) or along its discharge pipe. There are no monitoring wells present elsewhere to refute the contention that the source of the inorganic concentrations in groundwater are because of a release from the OWS and/or its discharge line. Please revise the FS to acknowledge this.

I look forward to working with you and the Rhode Island Department of Environmental Management toward the cleanup of the Tank Farm 5. Please do not hesitate to contact me at (617) 918-1385 should you have any questions or wish to arrange a meeting.

Sincerely,



Kymberlee Keckler, Remedial Project Manager
Federal Facilities Superfund Section

Attachment

cc: Pamela Crump, RIDEM, Providence, RI
Deb Moore, NETC, Newport, RI
David Peterson, USEPA, Boston, MA
Chau Vu, USEPA, Boston, MA
Steven Parker, Tetra Tech-NUS, Wilmington, MA

ATTACHMENT A

<u>Page</u>	<u>Comment</u>
p. ES-1, ¶1	Please specify that Site 13 is Operable Unit 2.
p. ES-2	<p>Regarding bullet 4 on manganese in soil, EPA disagrees with the rationale used to eliminate manganese as the COC in soil and the elimination of soil as a medium of concern. Since the sampling location showing exceeding risks from manganese has detection at level exceeding background manganese, it shows that manganese soil elevation is not from background. The background soil comparison study in Appendix F of the July 2011 Data Gaps Assessment Report for Tank Farm 4 and Tank Farm 5 mentioned that manganese concentrations found at Tank Farm 5 in both surface and subsurface soils are greater than manganese background concentrations. Therefore, manganese cannot be eliminated based on background.</p> <p>Furthermore, soil cannot be eliminated as a media of concern because contaminant levels exceed unrestricted use risk levels. Therefore, remedial action needs to address the unrestricted use risk (in addition to the limited commercial/industrial risk).</p>
p. ES-2, ¶3	<p>Remedial alternatives need to be developed for soil.</p> <p>Unless groundwater cleanup standards will be achieved under GW2 neither of the groundwater alternatives is protective or meets ARARs. Additional remedial actions that will achieve groundwater cleanup standards need to be evaluated in this FS.</p>
p. 1-1, ¶1	In the second sentence replace “by the U.S. Environmental Protection Agency (EPA)” with “in the Federal Facility Agreement (FFA) among the Navy, the U.S. Environmental Protection Agency (EPA), and the State of Rhode Island”
p. 1-1, ¶2	In the last sentence change “a Federal Facility Agreement (FFA)” to “FFA”.
p. 1-2, ¶3	Add to the end of the last sentence: “, as part of the Implementability and Short-Term Effectiveness criteria.
p. 1-7, §1.4.2	Specify that the “removal actions” were done under CERCLA authority.
p. 1-12, §1.8, ¶2	Please note that benzo(a)pyrene was detected in sediment above the EPA Regional Screening Level (RSL) for industrial soil in 8 of the 12 samples collected.
p. 1-14, ¶5	Please state whether any groundwater contaminants exceed non-zero MCLGs, federal risk-based standards, or more stringent state groundwater

standards.

p. 1-17, §1.10

For soil risks from arsenic, please remove discussion on CTE risks. EPA does not accept using CTE risks to eliminate COCs. PRGs should be calculated for residential and commercial/industrial exposure to soil contaminants.

p. 1-18, §1.10

a) The second paragraph indicates that arsenic concentrations are below background for one soil type, but exceed background for another soil type. While EPA recognizes the uncertainty, consider addressing risks related to arsenic or provide supporting information to demonstrate the soil type at the site is consistent with the background soil type with the higher arsenic concentration. Risk Management is not the basis for eliminating COCs.

b) In the third paragraph, COCs for contaminants that exceed unrestricted risk levels need to be identified.

c) The statement in the fourth paragraph that there is uncertainty in the basis of the cancer risk for arsenic because measured concentrations of arsenic are below the MCL should be instead described as an "inconsistency." Specify whether arsenic is below any MCLG, federal risk-based standard or more stringent State groundwater standard.

p. 1-19

a) Since unrestricted risk levels were not evaluated, please recognize that a risk assessment will likely be required to rescind any LUCs.

b) For sediment risks, please discuss that ILCRs for child and adult recreational users exceed $1E-5$ owing to arsenic and benzo(a)pyrene. Risk management discussion is needed for these scenarios.

p. 1-20, §1.11

a) Please delete any discussion that relates only to Tank Farm 4.

b) In the fourth paragraph (item 2), explain in greater detail why the Navy does not believe that soil contamination above background is not related to its activities.

p. 2-4, ¶1

Remove the last two sentences because Oil standards are not ARARs and the Air Quality Regulations are Action-specific standards.

p. 2-4 ¶2

Groundwater must meet federal MCLs, MCLGs, federal risk-based standards, and more stringent State groundwater standards. In the last sentence change "MCLs" to "federal drinking water standards."

p. 2-5, ¶2

In the last sentence insert ", MCLGs or more stringent State groundwater standards" after "federal MCLs."

p. 2-5, §2.2.1

Identify soil as a media of concern for unrestricted residential use. Address how the soil may be a media of concern for recreational use.

The second bullet discusses risks from use of groundwater as a “potable water source,” but the human health risk assessment text on page 1-18 uses the term “domestic use.” This implies that the groundwater poses a risk from other activities other than just drinking. Explain.

p. 2-6, §2.2.2

a) The last sentence of the third paragraph states “Recreational PRGs were not calculated specifically for the site because residential PRGs were calculated and are presumed to be more stringent (conservative) than those that would be calculated for a recreational receptor.” Residential PRGs, however, were not calculated for soil (see p. 1-17), but only for exposure to groundwater. Residential PRGs need to be developed, at a minimum to address defining the boundaries of any LUCs that may be established.

Although the text notes that the site is not residential and that there are no plans to develop it for residential use, unrestricted recreational use needs to meet residential standards. The FS calculates soil PRGs for the construction worker only, and not for a resident. A recreational user would not be exposed to groundwater, and therefore the residential PRGs that were calculated based on potential future use of the groundwater as water supply do not apply to a recreational user. The construction worker’s exposure to soil cannot be used as a surrogate for a recreational user because the construction worker is assumed to be exposed to site soil for only six months. Recreational users will be exposed over longer time periods. Table 3 in Appendix B includes exposure input parameters for both a child and adult recreational user. These inputs should be used to develop recreational PRGs for soil. These PRGs should be compared to the construction worker surface soil PRG and the lowest PRG should be selected for the remedial action.

b) The first sentence under Soil PRGs references the three cancer risk levels evaluated in the calculation of soil PRGs. However, there is only one soil COC, manganese, which is not a carcinogen. PRGs were not calculated for cancer risk for soil. Please revise to indicate that the PRG was set using an HQ of 1.

p. 2-7, §2.2.2, ¶2

In the third sentence replace “GA/NA, or suitable for public or private drinking water use but not attainable” with “potable under federal drinking water standards.”

p. 2-7, §2.2.2, ¶3

Please clarify the discussion under Groundwater PRGs because the PRG for arsenic is the MCL and that it is not a PRG selected based on a 1E-06 cancer risk level.

p. 2-8, ¶2

Groundwater PRGs may also be based on MCLGs or more stringent State groundwater standards.

p. 2-8, ¶3

In the third sentence, the leachability criteria at a CERCLA site is based on the federal, not state, groundwater classification.

Regarding the last sentence, once a determination of CERCLA risk is identified all exceedances of residential and commercial/industrial DEC and Leachability Standards must be identified and addressed.

- p. 2-8, ¶4 Replace this paragraph with text that describes the groundwater ARARS used to develop PRGs as “federal MCLs, MCLGs, federal risk-based standards, and more stringent state groundwater standards for unrestricted groundwater use.
- p. 2-8, §2.2.4, ¶1 Replace the last sentence with: “Under CERCLA, there is no authority to clean-up contaminated media below background levels that are approved by EPA and consistent with EPA guidance. When approved background contaminant levels are higher, the PRG is established at the background level.
- p. 2-10, §2.2.5.1 The reasonable maximum estimates (RME) of exposure for both current and potential land use conditions are developed in the risk assessment with the RME developed for future use of the site providing the basis for the development of protective exposure levels. In order to ensure that the selected remedy is protective of all individuals and environmental receptors that may be exposed at a site, EPA believes it is important to include all reasonably expected exposures in its risk assessment and use the RME risk results for selecting protective remedies.
- Identify soil PRGs for unrestricted residential use and confirm that soils do not exceed State leachability criteria for unrestricted groundwater use.
- p. 2-10, §2.2.5.2 In addition to MCLs, please evaluate whether any groundwater contaminant exceeds non-zero MCLGs, federal risk-based standards, or more stringent State groundwater standards.
- As stated above in the comment for §2.2.5.1, RME risks must be used to evaluate protective remedies for exposures to cobalt, iron, and manganese in groundwater.
- p. 2-10, §2.2.5.2 The last paragraph states “Iron in groundwater samples is likely due to turbidity and colloids.” More correctly, the iron in groundwater is likely due to presence of soluble iron salts. These salts cause turbidity and there also may be some flocculation of iron and manganese salts in water samples that oxidize when they are brought to the surface in contact with the atmosphere. Please correct.
- p. 2-12, ¶2 Manganese risk in groundwater needs to meet federal Health Advisory standards. If there are exceedances of risk-based standards then manganese needs to be addressed by the remedial alternatives (unless concentrations are below background levels).

p. 2-12, §2.6 Please identify what level of recreational use will be allowed on the Site, since “restricted” use may allow PRGs to be established based on industrial/commercial levels, but “unrestricted” use requires PRGs to be established based on residential levels. Furthermore, PRGs need to be established for residential, as well as commercial/industrial levels if they will serve as the basis for establishing LUCs to address potential future use.

p. 2-13, §2.3.1 If no remedial action objective (RAO) is necessary for soil then there should be no alternatives necessary for soil. Conversely, if the Navy believes that remedial action is necessary to address a site-related release impacting soil then there must be an RAO for soil. Please revise the FS accordingly.

As commented previously, if there is soil risk for unrestricted use, exceedances of State leachability standards to potable groundwater or soil risk to recreational use of the Site, soil RAOs are necessary.

p. 2-13, §2.3.2 In addition to MCLs and more stringent State groundwater standards, non-zero MCLGs and federal risk-based standards need to be considered.

The RAO for groundwater needs to be changed to: “Achieve federal and more stringent State drinking water standards. Until drinking water standards are achieved prevent groundwater use.”

p. 2-13, §2.4 The volume of contaminated media calculated may need to be increased based on comments herein. For instance, the volume of soil that exceeds unrestricted use risk standards and the volume of groundwater that exceeds federal drinking water standards, federal risk-based standards, and more stringent state groundwater standards (unless background levels are higher) need to be calculated.

p. 3-1, §3.1 As noted previously, this section may need to address soil, as well as groundwater.

p. 3-5, §3.3 Table 3-1 lists the process options that were eliminated and Table 3-2 lists the process options that were retained for further evaluation. However, Section 3.3 mistakenly evaluates process options that were eliminated, including containment and removal options. Please delete the discussion of those options that were previously eliminated.

p. 3-5, §3.3.1 The cost of statutorily required Five-Year Reviews need to be included in the discussion of the cost of the No Action Alternative.

p. 3-6, ¶2 Add a new last sentence: “The LUC RD drafted by the Navy is approved by EPA and the State and is enforceable under the FFA.”

p. 3-6, ¶3 In the second sentence after “ROD,” add “and the FFA.”

p. 3-6, ¶4 In the fifth sentence, insert “the ROD and” before “the five-year.”

- p. 3-9, §3.3.2 The conclusion for Monitored Natural Attenuation states that it is not retained because it is not expected to be a reliable solution for inorganic contaminants. Based on this assessment, MNA should have been eliminated, listed in Table 3-1, and not discussed in this evaluation of retained options. Please correct the text and table.
- p. 3-11, §3.3.5 Carry forward RPO's that will achieve drinking water standards at the Site.

If it is Navy's intent to retain MNA for further evaluation as Table 3-1 suggests, then the discussion of MNA in Section 3.3.2 needs to be revised and Section 3.3.5 should be revised to clarify why MNA has not been retained as a representative process option.
- p. 3-14, ¶1 Develop and present alternatives that will achieve drinking water standards on the Site.
- p. 4-1, §4.0 This entire chapter needs to be revised to add a protective and ARAR compliant alternative that will meet groundwater cleanup standards.
- p. 4-1, §4.1.1 The cost of statutorily required Five-Year Reviews need to be included in the discussion of the cost of the No Action Alternative.
- p. 4-2, §4.1.2, ¶¶ 1 & 2 While the assumption of annual monitoring from four monitoring wells is sufficient for the development of a cost estimate for the Feasibility Study, the actual number of wells and frequency of sampling will be established in the Long-Term Monitoring Plan.
- p. 4-2, §4.1.2, ¶3 This paragraph implies that groundwater is expected to achieve PRGs over time. If that is the case, this would be a MNA alternative. The time required to achieve drinking water standards needs to be identified.
- p. 4-2, §4.1.2, ¶4 If off-site LUCs are required to prevent migration of contaminated groundwater, this needs to be clearly identified in the FS and the Proposed Plan so that abutters are made aware of the potential restrictions that may be required on their property. The text should discuss what form of LUC for off-site properties may be required (e.g., federal purchase of an easement to restrict groundwater use).
- p. 4-3, §4.3.1 As previously noted, Five-Year Reviews are included in No Action Alternatives.
- p. 4-4, §4.2.1, ¶1 Under Compliance with ARARs, the tables referenced should be Tables 4-3 through 4-5. Change the second sentence to: "The alternative does not achieve chemical-specific ARARs and risk-based standards derived from chemical-specific TBCs."
- p. 4-4, ¶2 Remove the first two sentences.

- p. 4-4, ¶4 As previously noted, Five-Year Reviews are included in No Action Alternatives.
- p. 4-5, Table Add Five-Year Review costs to the No Action Alternative.
- p. 4-5, §4.2.2
- a) In the first paragraph, the alternative is not protective unless the alternative can achieve drinking water standards.
 - b) Under Compliance with ARARs, the tables referenced should be Tables 4-6 through 4-8. Unless the alternative can achieve drinking water ARARs, the alternative does not meet the criterion.
 - c) Under Compliance with ARARs, the third paragraph states that Alternative GW2 complies with all location-specific ARARs, but Table 4-7 indicates there are no location-specific ARARs for Alternative GW2. Please correct.
 - d) Unless the alternative can achieve drinking water standards, the alternative is not effective or permanent.
- p. 4-6, §4.3 It is not possible to fully compare the alternatives until the outstanding issues identified herein are addressed. Most significantly, neither of the presented alternatives are protective or meet ARARs, so alternatives that meet the NCP criteria through achieving drinking water standards needs to be developed and analyzed.
- p. 4-8, Table Add Five-Year Review cost to the No Action Alternative.
- A Section 5.0 will be needed for soils unless the soils do not pose a risk from unrestricted use.
- Table 2-1 See Attached B with edits to the Table text.
- Add to federal standards:

Health Advisories (EPA Office of Drinking Water)	To be Considered	Health Advisories are estimates of risk from consumption of contaminated drinking water. They consider non-carcinogenic effects only. To be considered for contaminants in groundwater that may be used for drinking water where the standard is more conservative than either federal or state statutory or regulatory standards. The Health Advisory standard for manganese is 0.3 ppm.	Health advisories will be used to evaluate the non-carcinogenic risk resulting from exposure to certain compounds.
--	------------------	---	--

Table 2-2

See Attachment B to EPA's December 6, 2011 letter with edits to the Table text.

Add to federal standards:

Floodplain Management and Protection of Wetlands, 44 C.F.R. Part 9	Relevant and Appropriate	FEMA regulations that set forth the policy, procedure and responsibilities to implement and enforce Executive Order 11988, Floodplain Management, and Executive Order 11990, Protection of Wetlands.	Remedial alternatives conducted within the 500-year coastal storm floodplain or within federal jurisdictional wetlands and aquatic habitats will be implemented in compliance with these standards. The Navy will solicit public comment as part of the proposed plan on the measures taken through the remedial action to protect floodplain and wetland/aquatic habitat resources.
--	--------------------------	--	--

Add additional State standards:

Coastal Resources Management Rhode Island General Laws (RIGL46-23-1 <i>et seq.</i>)	Applicable	Sets standards for management and protection of coastal resources.	The site is located within a coastal zone management area; therefore, applicable coastal zone management requirements need to be addressed.
--	------------	--	---

If the remedial activity will be within State jurisdictional wetlands or within a 50 foot buffer zone to the wetlands, add:

Rhode Island Freshwater Wetlands (RIGL 2-1-18 <i>et seq.</i>)	Applicable	Defines and establishes provisions for the protection of Rhode Island jurisdictional wetlands (including a 50 foot buffer zone to wetland resource areas). Actions required to prevent the undesirable drainage, excavation, filling, alteration, encroachment or any other form of disturbance or destruction to a wetland.	The site is located within a coastal zone management area; therefore, applicable coastal zone management requirements need to be addressed.
--	------------	--	---

Table 2-3

See Attachment B to EPA's December 6, 2011 with edits to the Table text.

Add to federal standards:

CWA National Recommended Water Quality Criteria (NRWQC), 40 CFR §122.44)	Applicable	Federal NRWQC are health-based and ecologically based criteria developed for carcinogenic and non-carcinogenic compounds.	Water quality standards used to develop surface water quality monitoring standards for soil remedial alternatives at the Site.
Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites, OSWER Directive 9200.4-17P (April 21, 1999)	To be Considered	EPA guidance regarding the use of monitored natural attenuation for the cleanup of contaminated soil and groundwater. In particular, a reasonable time frame is defined as achieving cleanup standards though monitored attenuation would be comparable to what could be achieved through active restoration.	The monitored natural attenuation component of any groundwater alternative will only meet these standards if natural attenuation will attain all groundwater cleanup standards within a reasonable time frame.
EPA Groundwater Protection Strategy (August 1984; NCP Preamble, Vol. 55, No. 46, March 8, 1990, 40 C.F.R. Part 300, p. 8733); Guidelines for Ground-Water	To Be Considered	The Groundwater Protection Strategy provides a common reference for preserving clean groundwater and protecting the public health against the effects of past contamination. Guidelines for consistency in groundwater protection programs focus on the highest beneficial use of a	Guidance standards will be met since groundwater alternatives will be required to achieve federal drinking water standards, federal risk-based standards, or more stringent state groundwater standards,

Classification (November 1986)		groundwater aquifer.	
-----------------------------------	--	----------------------	--

Add to State standards:

Water Pollution Control – Pollutant Discharge Elimination System (PDES) Regulations of Rhode Island Pollutant Discharge Elimination System	Applicable	Contains applicable effluent monitoring requirements, and standards and special conditions for discharges.	Discharge of water from remedial activities (including dewatering soil) to surface waters will meet these standards.
Standards for Storm Water Management and Sediment Reduction Regulations of Rhode Island Pollutant Discharge Elimination System, Rules 15.01(g) and (i) and 31	Applicable	Identifies storm water management and sediment control requirements for remedial actions or corrective measures involving land-disturbance activities.	Storm water controls for areas of construction/maintenance will be implemented and maintained to meet these standards.
Drilling of Drinking Water Wells; Rules and Regulations Governing the Enforcement of Chapter 46-13.2 Relating to the Drilling of Drinking Water Wells (RIGL 46-13.2 <i>et seq.</i>)	Applicable	Prohibits installing drinking water wells in contaminated aquifers. Establishes standards for decommissioning monitoring wells (Rule 9.03).	Under these standards drinking water wells are prohibited within areas of contamination until groundwater cleanup standards are achieved and monitoring wells used will be properly decommissioned when no longer needed.
Well Standards State of Rhode Island Rules and Regulations for Groundwater Quality – Appendix I	Applicable	Identifies the standards and specification that must be followed for the installation or abandonment of monitoring wells.	Applies to the abandonment of existing monitoring wells.

Table 2-4

Identify soil PRGs for any contaminants that exceed unrestricted use standards.

Since risks from manganese were found from exposure to subsurface soil via inhalation for construction worker, a PRG is needed for subsurface soil. Manganese is detected in subsurface soil at levels exceeding the selected PRG of 1030 mg/kg for subsurface soil, which is also background subsurface

soil. EPA disagrees that there is an issue with the maximum manganese detected in surface soil below the PRG since manganese risk from surface soil is acceptable and it is irrelevant to compare levels in surface soil to the subsurface soil PRG.

- Table 2-5 Identify soil PRGs for any contaminants that exceed unrestricted use standards.
- Table 2-6 & 2-7 Identify groundwater PRGs for any contaminants that exceed federal MCLs, non-zero MCLGs, federal risk-base standards, or more stringent State groundwater standards (unless the contaminant levels are less than background).
- Table 2-8 Please delete the key at the bottom of the table as it is not relevant to the information presented.
- Table 3-1
- a) Carry through the process options that can achieve drinking water standards.
 - b) On page 2 of 6, the Hydraulic Barrier process option is shown as “eliminated” but was retained in the evaluation of process options and discussed in Section 3.3.3. Please correct.
 - c) The Extraction Wells process option is shown as “eliminated” but was retained in the evaluation of process options and discussed in Section 3.3.4. Please correct.
- Table 3-2 Carry through the process options that can achieve drinking water standards.
Include tables for soil.
- Table 4-1 Include alternatives that can achieve drinking water standards.
The No Action alternative includes statutorily required Five-Year Reviews. Table 4-2 As noted previously, it is not possible to fully compare the alternatives until the outstanding issues identified herein are addressed (e.g., none of the alternatives presented meet NCP criteria).
Page 1 of 2: Alternative 2 does not meet the Protectiveness, ARARs, or Effectiveness criteria.
There is no reduction of toxicity, mobility, or volume through active treatment, therefore Alternative 2 should be rated as “None” for all four line items in this category. Please correct.

- Table 4-2 Page 2 of 2: It is not evident that Alternative 2 can ever meet the RAO of achieving drinking water standards. Please revise the table accordingly.
- Table 4-3 Please include all of the federal drinking water standards (MCLGs), federal risk-based standards (health advisories) and more stringent State groundwater standards (RI groundwater remediation standards) identified in Table 2-1. The No Action alternative does not meet any of these standards.
- Table 4-6 Please include all of the federal drinking water standards (MCLGs), federal risk-based standards (health advisories) and more stringent State groundwater standards (RI groundwater remediation standards) identified in Table 2-1.
- The “Action to be Taken” text for the Safe Drinking Water Act and RI Remediation Regulations states that drinking water standards will be met over time, but the text states that MNR cannot achieve groundwater cleanup standards. If true, the LUC-only alternative is neither protective nor meets ARARs so the text for all of the citations should state that Alternative 2 does not meet any of these standards.
- Table 4-7 Add the location-specific ARARs identified in the comments to Table 2-2 (installation, sampling and O&M of monitoring wells in or adjacent to wetlands/floodplain, as well as federal and State coastal zone standards).
- Table 4-8 Add federal and State Action-specific ARARs identified in Table 2-3 that pertain to the LUC-only alternative (monitoring and LUCs).
- Add ARARS tables for alternatives that will achieve drinking water standards.
- Add ARARS tables for soil alternatives (if soil poses a risk for unrestricted use).
- App. B, Table 1 Delete this table because it is for Tank Farm 4.
- App. B, Table 6-38 Change this to Table 1 and renumber the remaining tables as appropriate.
- App. B, Tables 3 to 7 Delete the reference to Tank Farm 4.
- App. B, Tables 4 to 7 These tables should include the toxicity data that were used to calculate PRGs for iron and cobalt, as well as arsenic and manganese.
- App. B, Table 8 Please delete this table as it is not relevant for Tank Farm 5.
- App. B, Table 11 Delete this table as it is for Tank Farm 4.
- App. B, Attachment A Please delete references to Tank Farm 4 and ensure that the exposure concentrations used are pertinent only to Tank Farm 5. Delete references to chemicals that are not relevant to Tank Farm 5.

App. B, Attachment B Delete any calculations and references to chemicals that are not relevant to Tank Farm 5.

App. B, Attachment C Delete any calculations and references to chemicals that are not relevant to Tank Farm 5.

Appendix C For the No Action alternative, because unrestricted use of groundwater is not allowed, Five-Year Reviews are required.