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LETTER AND COMMENTS FROM U S EPA REGION I ON ROUND 2 RESPONSE TO  
COMMENTS REGARDING DRAFT FEASIBILITY STUDY REPORT FOR BUILDING 82 NAS  
SOUTH WEYMOUTH MA  
06/22/2010  
U S EPA REGION I



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION I  
5 Post Office Square, Suite 100  
Boston, MA 02109-3912

June 22, 2010

Brian J. Helland, P.E.  
BRAC Program Management Office NE  
4911 South Broad Street  
Philadelphia, PA 19112-1303

Re: Round 2 Responses to EPA Comments on the Draft Feasibility Study Report for Building 82

Dear Mr. Helland:

Thank you for the opportunity to review the May 11, 2010 responses to EPA's March 1, 2010 letter on the draft *Feasibility Study Report for Building 82* at the Naval Air Station South Weymouth, dated September 2009. The Feasibility Study develops and evaluates remedial alternatives for site groundwater. Detailed comments are provided in Attachment A.

EPA has also made edits to the revised ARARs tables and included them in Attachment B. The table numbering will likely need to be corrected to comport with the FS. Tables 4-3, 4-6, and 4-9 identify EPA vapor guidance for 'assessment and mitigation of potential vapor intrusion risks' but Tables 4-2, 4-5, and 4-7 do not identify any chemical-specific vapor risk ARARs or TBCs. If no vapor risk was identified in the FS it is unclear why there is an action-specific ARAR for vapor. Please check to see if Massachusetts has any vapor standards that should be cited either as chemical or action-specific ARARs.

LC2. Based on other EPA comments on the Draft FS, the proposed revision to the RAOs should reference all chemicals with PRGs. Please update the RAOs accordingly.

LC4: Because 1,1,1-trichloroethane (1,1,1-TCA) was detected at a concentration *exceeding* its MCL, it needs to be retained as a chemical of concern. It is not sufficient to identify it as a chemical of interest. The daughter products of TCE and 1,1,1-TCA may be identified as chemicals of interest with PRGs if their presence is assumed but they have not been detected to date. Please revise the FS accordingly.

EPA does not agree with the use of the term "compound of interest" under CERCLA. It is essential that TCE, and its daughter product 1,1,1-TCA, are considered in remedial programs unless they are identified as a compound of concern. EPA agrees that 1,1,1-TCA should be considered in the development of remedial alternatives and in any aspects of long-term monitoring for the alternatives.

LC9: Is there sufficient information regarding the PCB sampling to discern whether the PCBs have not *just* moved downgradient? What downgradient sampling was performed to justify the elimination of PCBs? The RI Addendum needs to comprehensively assess the TCE plume

discovered between Buildings 82 and 81 in consideration of the three-dimensional groundwater data on an appropriate scale (*i.e.*, including Buildings 82 and 81). In addition to the contaminant distribution data that has been provided, synoptic water level data need to be collected from overburden and bedrock monitoring wells in the new plume area, the Building 81 area, the Building 82 area, and other pertinent up- and down-gradient areas. Please update the CSM to include an evaluation of groundwater flow on this scale, as well as an assessment of the contaminant distribution in the new plume with respect to groundwater flow. Additional long-term monitoring points will likely be required in subsequent phases of work to the extent that the current monitoring network is not sufficient. Specifically, permanent monitoring points are limited in key areas of the new plume and additional control is needed in shallow overburden, deep overburden, and bedrock.

LC10: EPA disagrees that "...extenuating circumstances..." per the OSWER 9355.0-30 quotation are absent. The example extenuating circumstance is exposure to multiple contaminants, which can occur at this site. Unless Navy can demonstrate that multiple contaminants in the same well do not occur, the PRGs must be set such that the total risk of all of the COCs is within EPA's risk criteria (*see also* LC17 and LC21).

Moreover, the *response* actually confirms the information presented in EPA's comment – that cumulative risk supersedes MCLs when multiple COCs are present.

The MCL for vinyl chloride is based on the detection limit that was achievable approximately fifteen years ago. Current analytical methods have significantly lower detection limits. For example, Method 524.3, a drinking water method, lists a detection limit for vinyl chloride at 0.029 micrograms per liter ( $\mu\text{g/L}$ ) with a lowest concentration minimum reporting level of 0.092  $\mu\text{g/L}$ . Consequently, current technology has the potential to quantify vinyl chloride at the lower end of EPA's risk range.

Five-year reviews would have to evaluate the monitoring data to determine what chemicals are present at what concentrations and determine whether the remedy is protective. Cleanup to less than the MCLs could be indicated based on the cumulative risk associated with these data.

Additionally, EPA does not agree that "...Remedial processes that address TCE and cis-1,2-DCE generally address vinyl chloride too..." Biological degradation of TCE occurs most commonly in a reduced geochemical environment, whereas vinyl chloride is most amenable to degradation in an aerobic environment. As a result, vinyl chloride could persist even as TCE is degraded in certain remedial strategies. Any remedial strategies that rely on natural or enhanced biodegradation processes (*e.g.*, enhanced reductive de-chlorination) will likely need to address VC. While it appears unlikely that the groundwater will be used for drinking water in the near-term, the NCP's expectation is to restore impacted groundwater to beneficial reuse.

Finally, please make the following changes to the LC10 table:

- For clarity, cumulative risk based on the various target concentrations (MCLs, typical DLs, and 1/2 typical DLs) should be presented so that cancer risk and non-cancer risk values are clear. For example, the MCL risk for TCE is listed as 2.5E-6 and that for cis-1,2-DCE is listed as 0.19. These should be separated to clarify the cumulative cancer risk and the cumulative non-cancer risk.

- The listed RSL for 1,1-DCA is 9.9 ug/l. According to the May 2010 RSL table, the RSL should be 2.4 ug/l. Please adjust this table accordingly.
- The listed RSL for n-nitroso-di-n-propylamine is 0.0073 ug/l. According to the May 2010 RSL table, the RSL should be 0.0096 ug/l. Please adjust this table accordingly.
- The listed RSL for aroclor 1248 is 0.032 ug/l. According to the May 2010 RSL table, the RSL should be 0.034 ug/l. Please adjust this table accordingly.
- Please clarify which form of chloroethane is addressed in the sixth row and clarify where the HI=1 screening level of 21000 ug/L was found. EPA was unable to find this value in the RSL table.

LC11: EPA disagrees with the assertion that the manganese UCL of the shallow groundwater (3170 ug/l) is not significantly greater than background (2680 ug/l). EPA has not accepted the Navy's background number for manganese and believes that a new background number should be generated. Moreover, the background value is an upper prediction limit, any concentration above which is considered to be higher than background. Any conclusion that a site UCL greater than the UPL is not higher than background is contrary to the agreement negotiated between our respective agencies and indicates that the groundwater manganese background concentration should actually be much lower, per EPA's previous comments based on additional sampling. Therefore, manganese should be designated as a compound of concern and included in the natural attenuation with monitoring (*see also* LC18). Manganese should be monitored and addressed for all potential remedies, including natural attenuation.

LC22: EPA agrees to consider LUCs if the additional investigation of the TCE plume shows a potential risk from vapor intrusion. Please note that the risk calculations may need to be revised if toxicity values for TCE are changed.

I look forward working with you and the Massachusetts Department of Environmental Protection to select a final remedy for Building 82. Please do not hesitate to contact me at (617) 918-1385 should you have any questions.

Sincerely,



Kymberlee Keckler, Remedial Project Manager  
Federal Facilities Superfund Section

Attachments

cc: Dave Barney, USN, South Weymouth, MA  
Dave Chaffin, MADEP, Boston, MA  
Kevin Donovan, SSTTDC, South Weymouth, MA  
Phoebe Call, TTNUS, Wilmington, MA

## ATTACHMENT A

<u>Page</u>	<u>Comment</u>
SC4	Rather than continuing to debate the issue, EPA plans to install transducers in key wells to establish site-specific water level trends over the long term to assist in our evaluation of the groundwater data.
SC6	While EBS and RI actions have addressed fuel contamination, residual amounts could be responsible for detections of naphthalene and related compounds. Additionally, residual fuel could create a reduced geochemical environment capable of exacerbating levels of dissolved manganese and other redox-sensitive metals. Future groundwater monitoring should consider these issues in light of maintaining or adding necessary control points. As stated in EPA's original comment, the shallow groundwater and zone of water-table fluctuation beneath the ditches should be included for future monitoring because previous removals may not have addressed contamination below the water table.
SC10	EPA agrees that the potential for DNAPL at Building 15 appears unlikely. However, as discussed in LC9, a closer examination of contaminant distribution combined with an evaluation of groundwater flow over the greater area is needed. This could involve additional monitoring near Building 15, including bedrock monitoring.
SC11	A comprehensive examination of groundwater in the Building 15 area and adjacent areas of Buildings 81 and 82 needs to consider the engineered drainage systems (see also LC9).
SC12	The CSM needs to provide the technical basis to differentiate between metals resulting from site-activities (e.g., residual fuel spills) versus natural causes (e.g., reducing environment from peat deposits) so that remedial alternatives may be developed to address site-related metals issues. For example, a more robust understanding of metals occurrences and levels in shallow and deep overburden should consider ORP environment as well as proximity of specific monitoring wells to former releases of organic chemicals as well natural organic materials (e.g., peat).
SC14	EPA appreciates the Navy's plans to evaluate the geology in the southeastern portion of the site in greater detail following the delineation of the Building 15 TCE plume. The May 17, 2010 memorandum presents the results from direct-push vertical profiling, and shallow and deep overburden plumes are delineated on that basis. The new plumes appear to discharge near the southern boundary of Building 82 near Building 120. Please present a hydrogeologic cross-section for a plane perpendicular to the southern of the site. For example, a WSW to ESE alignment from AVG-MW-4 to MW09-011 to B82-MW202S/D to B82-GP-I07 to B82-GP-J07 to 9AB-MW-05 would represent the configuration of the aquifer materials at the leading edge of the plume at the downgradient edge of the site. Presentation of this cross section should include representation of pertinent engineered features such as subsurface drains or catch basins, since such features could influence the Building 82 and new Building 15 plumes. A cross section could help identify data gaps that can be addressed later.

- SC15 EPA agrees that the GTM-2 area should be monitored after the structure and associated piping are removed. Post-excavation monitoring should include both inorganics and organics as analytes. EPA recommends that this effort also include collection of TOC (or other measures of organic carbon) following the excavation in order to test the assumption that, "...natural organic material may have been present in sufficient quantities to create reducing conditions, but not necessarily massive enough to create a defined layer...." Post excavation soil sampling (via test pit or borings) could be used to collect samples for supporting analysis. The analytical methods that are selected must be able to discriminate between natural (*e.g.*, peat) and anthropogenic sources of carbon.
- SC16 Notification of the conditions at TP-100C should still be made to any future developers of this site so that removal may be considered.
- SC17 (p. 2-2, §2.2.2) Please refer to the earlier discussion on LC10 regarding the calculation of risk from multiple contaminants.
- Regarding MTBE, some evidence is necessary that an off-site source is responsible for the MTBE. Since neither a potential off-site source has not been identified nor has credible evidence been provided for an off-site source, then MTBE should not be eliminated as a site COC. Long-term monitoring for MTBE is needed to ensure that it does not migrate from off-site sources onto the site.
- SC18 EPA recommended development of a CSM that reflects a more detailed assessment of manganese and other redox-sensitive metals. Evaluation of all remedial alternatives, including MNA, should be informed by the updated CSM (see also SC12).
- SC21 (p. 2-4, §2.3.1) Please refer to the additional comment on LC10.
- SC22 (p. 2-10) As EPA originally indicated, there is too much uncertainty to rely on risk calculations. The current risk calculations for vapor intrusion are not acceptable based on current site characterization data and potential future site use. After the additional characterization data are available and after a conservative assessment of the vapor intrusion risk is completed and accepted, then the need for LUCs can be properly assessed.
- SC23 (p. 2-11, §2.5.1) The results of the supplemental investigations should guide whether pump and treat is analyzed in detail. If the contaminant concentrations are significantly greater than those detected previously then pump and treat should be reconsidered as a viable alternative. Unless the costs for pump and treat are clearly an order of magnitude greater than other alternatives considered, or a compelling case can be made against pump and treat in the screening process, pump and treat should be carried through to the detailed analyses. The rationale provided in the response is not compelling.

- SC30 Please refer to the additional comment on SC23.
- SC40 (p. 4-20, §4.2.4.2) The proposed maintenance actions will not address potential migration via the 5-inch sanitary sewer and bedding that discharges to the south of Building 82 that could be responsible for contamination in that area (*see also* SC14). Additional monitoring points may be needed to evaluate surface or buried utilities and their potential for offsite transport of contaminants.
- SC45 (p. 5-1, §5.1.2) Please refer to the additional comment on LC4.
- SC58 (Appendix C, G-4) c) EPA will consider this alternative when the database becomes robust enough to conclude that this alternative can successfully meet the RAOs within a reasonable timeframe.
- SC59 (Appendix D) e) The Navy must be able to demonstrate with available data that Natural Attenuation with Monitoring can be protective of human health and the environment. Any modeling used to support this alternative must be based on sufficient data to make the modeling credible.

**ATTACHMENT B**

TABLE 4-1

FEDERAL AND STATE CHEMICAL-SPECIFIC ARARs – ALTERNATIVE G-1  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
<b>Federal</b>				
Cancer Slope Factors (CSFs)	US EPA, Integrated Risk Information System	TBC	Guidance used to compute individual incremental cancer risk resulting from exposure to carcinogenic contaminants in site media	This alternative will not meet the standards developed through the use of this guidance since potential carcinogenic risks caused by exposure to contaminants will not be addressed.
Reference Doses (RfDs)	US EPA, Integrated Risk Information System	TBC	Guidance used to compute human health hazard resulting from exposure to non-carcinogens in site media	This alternative will not meet the standards developed through the use of this guidance since potential non-carcinogenic hazards caused by exposure to contaminants will not be addressed.
Guidelines for Carcinogen Risk Assessment	EPA/630/p-03/001F March 2005	TBC	Guidelines for assessing cancer risk	This alternative will not meet the standards developed through the use of this guidance since potential carcinogenic risks caused by exposure to contaminants will not be addressed.
Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens	EPA.630/r-03/003F March 2005	TBC	Guidance for assessing cancer risks in children	This alternative will not meet the standards developed through the use of this guidance since potential carcinogenic risks to children caused by exposure to contaminants will not be addressed.
Safe Drinking Water Act; National Primary Drinking Water Regulations,	42 U.S.C. § 300f <i>et seq.</i> ; 40 C.F.R. 141, Subpart B and G	Relevant and Appropriate	Establishes maximum contaminant levels (MCLs) for common organic and inorganic contaminants applicable to public drinking water supplies. Used as relevant and	The No-Action alternative will not achieve these standards.

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TABLE 4-1

FEDERAL AND STATE CHEMICAL-SPECIFIC ARARs – ALTERNATIVE G-1  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
Maximum Contaminant Levels,			appropriate cleanup standards for aquifers and surface water bodies that are potential drinking water sources.	
Safe Drinking Water Act; National Primary Drinking Water Regulations, Maximum Contaminant Level Goals,	42 U.S.C. § 300f <i>et seq.</i> ; 40 C.F.R. 141, Subpart F	Relevant and Appropriate for non-zero MCLGs only,	Establishes maximum contaminant level goals (MCLGs) for public water supplies. <u>Non-zero MCLGs are health goals for public drinking water sources. These unenforceable health goals are available for a number of organic and inorganic compounds. MCLGs are set at levels that would result in no known or expected adverse health effects with an adequate margin of safety. Non-zero MCLGs are to be used as cleanup goals when MCLs have not been established for a particular COC.</u>	The No-Action alternative will not achieve these standards.
Health Advisories	EPA Office of Drinking Water, EPA-822-R-04-003, January, 2004	TBC	Health Advisories are estimates of risk due to 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 mg/l.	The No-Action alternative will not achieve the standards developed through the use of this guidance since non-carcinogenic risk resulting from exposure to compounds identified in the Health Advisory (e.g., manganese) will not be addressed.

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TABLE 4-1

FEDERAL AND STATE CHEMICAL-SPECIFIC ARARs – ALTERNATIVE G-1  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
<b>State</b>				
Massachusetts Drinking Water Regulations	310 CMR 22.00	Relevant and Appropriate	Establish enforceable state MCLs for organic and inorganic contaminants that have been determined to adversely affect human health in public drinking water systems. Will be used where state standard is more stringent than federal standard. Also establishes state MCLGs which are non-enforceable health goals for public drinking water systems.	The No-Action alternative will not achieve these standards.

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TABLE 4-2

FEDERAL AND STATE LOCATION-SPECIFIC ARARs – ALTERNATIVE G-2  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
<b>State</b>				
Massachusetts Endangered Species Act	M.G.L. ch.,131A 321 C.M.R. 10.00	Applicable	Sets out authority to research, list, and protect any species deemed endangered, threatened, or of other special concern. Actions must be conducted in a manner that minimizes the effect on listed Massachusetts species.	A state-listed species of special concern (Eastern Box Turtle) has been observed at the base, but not at the Building 82 site.  Appropriate measures will be taken during remedial actions to ensure that the species is not harmed by the alternative

TABLE 4-2

FEDERAL AND STATE CHEMICAL-SPECIFIC ARARs – ALTERNATIVE G-2  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
<b>Federal</b>				
Cancer Slope Factors (CSFs)	US EPA, Integrated Risk Information System	TBC	Guidance used to compute individual incremental cancer risk resulting from exposure to carcinogenic contaminants in site media	This alternative will meet the standard developed through the use of this guidance since treating groundwater that poses potential carcinogenic risks through chemical oxidation will address long-term risk, while land use controls will prevent short-term exposure to COCs in groundwater until risk-based standards are achieved.
Reference Doses (RfDs)	US EPA, Integrated Risk Information System	TBC	Guidance used to compute human health hazard resulting from exposure to non-carcinogens in site media	This alternative will meet the standard developed through the use of this guidance since treating groundwater that poses potential non-carcinogenic risks through chemical oxidation will address long-term risk, while land use controls will prevent short-term exposure to COCs in groundwater until risk-based standards are achieved.
Guidelines for Carcinogen Risk Assessment	EPA/630/p-03/001F March 2005	TBC	Guidelines for assessing cancer risk	This alternative will meet the standard developed through the use of this guidance since treating groundwater that poses potential carcinogenic risks through chemical oxidation will address long-term risk, while land use controls will prevent short-term exposure to COCs in groundwater until risk-based standards are achieved.

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 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens	EPA.630/r-03/003F March 2005	TBC	Guidance for assessing cancer risks in children	This alternative will meet the <u>standard developed through the use of this guidance</u> since treating groundwater that poses potential carcinogenic risks to children through chemical oxidation will address long-term risk, while land use controls will prevent short-term exposure to COCs in groundwater until risk-based standards are achieved.
Safe Drinking Water Act; National Primary Drinking Water Regulations, Maximum Contaminant Levels,	42 U.S.C. § 300f <i>et seq.</i> ; 40 C.F.R. 141, Subpart B and G	Relevant and Appropriate	Establishes maximum contaminant levels (MCLs) for common organic and inorganic contaminants applicable to public drinking water supplies. Used as relevant and appropriate cleanup standards for aquifers and surface water bodies that are potential drinking water sources.	This alternative will achieve MCL standards through treatment of groundwater by chemical oxidation. Land use controls will prevent short-term exposure until MCL standards are reached.
Safe Drinking Water Act; National Primary Drinking Water Regulations, Maximum Contaminant Level Goals,	42 U.S.C. § 300f <i>et seq.</i> ; 40 C.F.R. 141, Subpart F	Relevant and Appropriate for non-zero MCLGs only.	Establishes maximum contaminant level goals (MCLGs) for public water supplies. <u>Non-zero MCLGs are health goals for public drinking water sources. These unenforceable health goals are available for a number of organic and inorganic compounds. MCLGs are set at levels that would result in no known or expected adverse health effects with an adequate margin of safety. Non-zero MCLGs are to be used as cleanup</u>	This alternative will achieve MCLG standards through treatment of groundwater by chemical oxidation. Land use controls will prevent short-term exposure until MCLG standards are reached.

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TABLE 4-2

FEDERAL AND STATE CHEMICAL-SPECIFIC ARARs – ALTERNATIVE G-2  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
			<u>goals when MCLs have not been established for a particular COC.</u>	
Health Advisories	EPA Office of Drinking Water, EPA-822-R-04-003, January, 2004	TBC	Health Advisories are estimates of risk due to 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 mg/l.	This alternative will achieve the standards <u>developed through the use of this guidance</u> since non-carcinogenic risk resulting from exposure to compounds identified in the Health Advisory (e.g., manganese) will be addressed by chemical oxidation. Land use controls will prevent short-term exposure until protective levels are reached.

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State

Massachusetts Drinking Water Regulations	310 CMR 22.00	Relevant and Appropriate	Establish enforceable state MCLs for organic and inorganic contaminants that have been determined to adversely affect human health in public drinking water systems. Will be used where state standard is more stringent than federal standard. Also establishes state MCLGs which are non-enforceable health goals for public drinking water systems.	This alternative will achieve state MCL and MCLG standards through treatment of groundwater by chemical oxidation. Land use controls will prevent short-term exposure until state MCL and MCLG standards are reached.
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TABLE 4-3

FEDERAL AND STATE ACTION-SPECIFIC ARARs – ALTERNATIVE G-2  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
<b>Federal</b>				
Resource Conservation and Recovery Act (RCRA)	42 USC § 6901 <i>et seq.</i>	Applicable	Federal standards used to identify, manage, and dispose of hazardous waste. Massachusetts has been delegated the authority to administer the RCRA standards through its state hazardous waste management regulations	Specific state hazardous waste standards authorized under the Act would apply when determining whether or not a solid waste is hazardous, either by being listed or by exhibiting a hazardous characteristic, such as contaminated purge water from groundwater sampling or contaminated material generated from well installation or maintenance. Existing data do not indicate that any wastes will be hazardous.
RCRA, Interim Status TSDF Standards, Chemical, Physical and Biological Treatment	40 C.F.R. 265 Subpart Q	Relevant and Appropriate	The regulations in this subpart apply to the treatment of hazardous wastes by chemical, physical, or biological methods in other than tanks, surface impoundments, and land treatment facilities. Treatment reagents must not be placed in the treatment process or equipment if they could cause the treatment process or equipment to rupture, leak, corrode, or otherwise fail before the end of its intended life. Inspections are required to make sure treatment process is operating correctly.	In-situ treatment using chemical oxidation will be conducted in compliance with these standards, in particular regarding the handling and management of treatment chemicals.
Underground Injection Control;	40 C.F.R. 144, 146, 147, 1100	Relevant and Appropriate	These regulations address the discharge of wastes, chemicals or other substances into the subsurface. The federal UIC program designates injection wells incidental to aquifer remediation and experimental technologies as Class V wells authorized by rule that do not	These standards regulate the injection of chemical substances into the groundwater. In-situ treatment using chemical oxidation will be conducted in compliance with these standards.

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FEDERAL AND STATE ACTION-SPECIFIC ARARs – ALTERNATIVE G-2  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
			require a separate UIC permit. State requirements apply in this case; see 310 CMR 27.00 below.	
Draft Guidance for Evaluating Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)	OSWER EPA530-D-02-004 (November 2002)	TBC	Guidance for assessing and mitigating vapor intrusion risk	Since the future use includes housing, offices, and commercial/retail, assessment and mitigation of potential vapor intrusion risks will be conducted in accordance with the guidance until such time as groundwater cleanup levels are achieved.
<b>State</b>				
Hazardous Waste Rules for Identification and Listing of Hazardous Wastes,	310 CMR 30.100	Applicable	Establish requirements for determining whether wastes are hazardous. Defines listed and characteristic hazardous wastes.	These regulations would apply when determining whether or not a solid waste <u>that is generated as part of this remedial action is classified as hazardous, either by being listed or by exhibiting a hazardous characteristic, such as contaminated purge water from groundwater sampling or contaminated material generated from well installation or maintenance.</u> Existing data do not indicate that any wastes will be hazardous.
Hazardous Waste Management Rules – Requirements for Generators	310 CMR30.300	Applicable	<u>These regulations contain requirements for generators of hazardous waste. The regulations apply to generators of sampling waste and to the accumulation of waste prior to off-site disposal.</u>	<u>Wastes generated during remedial actions that are determined to be hazardous will be handled in compliance with the substantive requirements of these regulations.</u>

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TABLE 4-3

FEDERAL AND STATE ACTION-SPECIFIC ARARs – ALTERNATIVE G-2  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
Underground Injection Control Program	310 CMR 27.00	Applicable	The federal Underground Injection Control program under the Safe Drinking Water Act has been delegated to the Commonwealth of Massachusetts. Establishes a State Underground Injection Control Program consistent with federal requirements to protect underground sources of drinking water.	The regulations apply to remedial actions involving underground injection, including use of an oxidizer for in-situ chemical oxidation. <u>To ensure that the remedial action complies with the substantive requirements of these regulations, the proposed quantities to be injected will be included in the design and submitted to EPA and MassDEP for comment and concurrence and the groundwater monitoring program will assess the impact of the injected compounds.</u>
Certification of Well Drillers and Filing of Well Completion Reports	313 CMR 3.03 (predecessor regulations); 310 CMR 46	Applicable	Requirements relating to well abandonment	Well drillers will follow all regulatory requirements for drilling and decommissioning of wells.
Standard References for Monitoring Wells	WSC-310-91 MADEP April 1991	TBC	This guidance describes the technical requirements for locating, drilling, installing, sampling and decommissioning monitoring wells.	Applies to wells installed for monitoring and/or groundwater treatment.
Erosion and Sediment Control Guidance		TBC	<u>This guidance includes standards for preventing erosion and sedimentation.</u>	Remedial actions, particularly installation and maintenance of wells and other components of the remedy, will be managed to control erosion and sedimentation.

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TABLE 4-5

FEDERAL AND STATE LOCATION-SPECIFIC ARARs – ALTERNATIVE G-3  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
Massachusetts Endangered Species Act	M.G.L. ch. 131A; 321 C.M.R. 10.00	Applicable	Sets out authority to research, list, and protect any species deemed endangered, threatened, or of other special concern. Actions must be conducted in a manner that minimizes the effect on listed Massachusetts species.	A state-listed species of special concern (Eastern Box Turtle) has been observed at the base, but not at the Building 82 site. Appropriate measures will be taken during remedial actions to ensure that the species is not harmed by the alternative

TABLE 4-5

FEDERAL AND STATE CHEMICAL-SPECIFIC ARARs – ALTERNATIVE G-3  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
<b>Federal</b>				
Cancer Slope Factors (CSFs)	US EPA, Integrated Risk Information System -	TBC	Guidance used to compute individual incremental cancer risk resulting from exposure to carcinogenic contaminants in site media	This alternative will meet the standard developed through the use of this guidance since treating groundwater that poses potential carcinogenic risks through bioremediation and chemical oxidation will address long-term risk, while land use control will prevent short-term exposure until risk-based standards are achieved.
Reference Doses (RfDs)	US EPA, Integrated Risk Information System -	TBC	Guidance used to compute human health hazard resulting from exposure to non-carcinogens in site media	This alternative will meet this standard developed through the use of this guidance since treating groundwater that poses potential non-carcinogenic risks through bioremediation and chemical oxidation will address long-term risk, while land use controls will prevent short-term exposure until risk-based standards are achieved.
Guidelines for Carcinogen Risk Assessment	EPA/630/p-03/001F March 2005	TBC	Guidelines for assessing cancer risk	This alternative will meet this standard developed through the use of this guidance since treating groundwater that poses potential carcinogenic risks through bioremediation and chemical oxidation will address long-term risk, while land use controls will prevent short-term exposure until risk-based standards are achieved.
Supplemental	EPA.630/r-03/003F	TBC	Guidance for assessing cancer risks in	This alternative will meet this standard

TABLE 4-5

FEDERAL AND STATE CHEMICAL-SPECIFIC ARARs – ALTERNATIVE G-3  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens	March 2005		children	<u>developed through the use of this guidance</u> since treating groundwater that poses potential carcinogenic risks to children through bioremediation and chemical oxidation will address long-term risk, while land use controls will prevent short-term exposure until risk-based standards are achieved.
Safe Drinking Water Act; National Primary Drinking Water Regulations, Maximum Contaminant Levels,	42 U.S.C. § 300f <i>et seq.</i> ; 40 C.F.R. 141, Subpart B and G	Relevant and Appropriate	Establishes maximum contaminant levels (MCLs) for common organic and inorganic contaminants applicable to public drinking water supplies. Used as relevant and appropriate cleanup standards for aquifers and surface water bodies that are potential drinking water sources.	This alternative will achieve MCL standards through treatment of groundwater by bioremediation and chemical oxidation. Land use controls will prevent short-term exposure until MCL standards are reached.
Safe Drinking Water Act; National Primary Drinking Water Regulations, Maximum Contaminant Level Goals,	42 U.S.C. § 300f <i>et seq.</i> ; 40 C.F.R. 141, Subpart F	Relevant and Appropriate for non-zero MCLGs only;	Establishes maximum contaminant level goals (MCLGs) for public water supplies. <u>Non-zero MCLGs are health goals for public drinking water sources.</u> These unenforceable health goals are available for a number of organic and inorganic compounds.  <u>MCLGs are set at levels that would result in no known or expected adverse health effects with an adequate margin of safety. Non-zero MCLGs are to be used as cleanup goals when MCLs have not been</u>	This alternative will achieve MCLG standards through treatment of groundwater by bioremediation and chemical oxidation. Land use controls will prevent short-term exposure until MCLG standards are reached.

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TABLE 4-5

FEDERAL AND STATE CHEMICAL-SPECIFIC ARARs – ALTERNATIVE G-3  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
			<u>established for a particular COC.</u>	
Health Advisories	EPA Office of Drinking Water, EPA-822-R-04-003, January, 2004	TBC	Health Advisories are estimates of risk due to 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 mg/l.	This alternative will achieve the standards <u>developed through the use of this guidance</u> since non-carcinogenic risk resulting from exposure to compounds identified in the Health Advisory (e.g., manganese) will be addressed by bioremediation and chemical oxidation. Land use controls will prevent short-term exposure until protective levels are reached.

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State

TABLE 4-5

FEDERAL AND STATE CHEMICAL-SPECIFIC ARARs – ALTERNATIVE G-3  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
Massachusetts Drinking Water Regulations	310 CMR 22.00	Relevant and Appropriate	Establish enforceable state MCLs for organic and inorganic contaminants that have been determined to adversely affect human health in public drinking water systems. Will be used where state standard is more stringent than federal standard. Also establishes state MCLGs which are non-enforceable health goals for public drinking water systems.	This alternative will achieve state MCL and MCLG standards <u>which are more stringent than federal standards</u> through treatment of groundwater by bioremediation and chemical oxidation. Land use controls will prevent short-term exposure until state MCL and MCLG standards are reached.

TABLE 4-6

FEDERAL AND STATE ACTION-SPECIFIC ARARs – ALTERNATIVE G-3  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
			require a separate UIC permit. State requirements apply in this case; see 310 CMR 27.00 below.	
Draft Guidance for Evaluating Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)	OSWER EPA530-D-02-004 (November 2002)	TBC	Guidance for assessing and mitigating vapor intrusion risk	Since the future use includes housing, offices, and commercial/retail, assessment and mitigation of potential vapor intrusion risks will be conducted in accordance with the guidance until such time as groundwater cleanup levels are achieved.
<b>State</b>				
Hazardous Waste Rules for Identification and Listing of Hazardous Wastes,	310 CMR 30.100	Applicable	Establish requirements for determining whether wastes are hazardous. Defines listed and characteristic hazardous wastes.	These regulations would apply when determining whether or not a solid waste generated as part of this remedial action is classified as hazardous, either by being listed or by exhibiting a hazardous characteristic, such as contaminated purge water from groundwater sampling or contaminated material generated from well installation or maintenance. Existing data do not indicate that any wastes will be hazardous.
Hazardous Waste Management Rules – Requirements for Generators	310 CMR30.300	Applicable	<u>These regulations contain requirements for generators of hazardous waste. The regulations apply to generators of sampling waste and also apply to the accumulation of waste prior to off-site disposal.</u>	Hazardous wastes generated as part of the remedial action will be handled in compliance with the requirements of these regulations.

**Deleted:** Clean Air Act National Emission Standards for Hazardous Air Pollutants

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TABLE 4-6

FEDERAL AND STATE ACTION-SPECIFIC ARARs – ALTERNATIVE G-3  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
Underground Injection Control Program	310 CMR 27.00	Applicable	The federal Underground Injection Control program under the Safe Drinking Water Act has been delegated to the Commonwealth of Massachusetts. Establishes a State Underground Injection Control Program consistent with federal requirements to protect underground sources of drinking water.	The regulations apply to remedial actions involving underground injection, including use of bioremediation agents and oxidizers for in-situ chemical oxidation. <u>To ensure that the remedial action complies with the substantive requirements of these regulations, the proposed quantities to be injected will be included in the design and submitted to EPA and MassDEP for comment and concurrence and the groundwater monitoring program will assess the impact of the injected compounds.</u>
Certification of Well Drillers and Filing of Well Completion Reports	313 CMR 3.03 (predecessor regulations); 310 CMR 46	Applicable	Requirements relating to well abandonment	Well drillers will follow all regulatory requirements for drilling and decommissioning of wells.
Standard References for Monitoring Wells	WSC-310-91 MADEP April 1991	TBC	This guidance describes the technical requirements for locating, drilling, installing, sampling and decommissioning monitoring wells.	Applies to wells installed for monitoring and/or groundwater treatment.
Erosion and Sediment Control Guidance		To Be Considered	<u>This guidance includes standards for preventing erosion and sedimentation.</u>	Remedial actions, particularly installation and maintenance of wells and other components of the remedy, will be managed to control erosion and sedimentation.

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TABLE 4-7

FEDERAL AND STATE CHEMICAL-SPECIFIC ARARs – ALTERNATIVE G-4  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
<b>Federal</b>				
Cancer Slope Factors (CSFs)	US EPA, Integrated Risk Information System	TBC	Guidance used to compute individual incremental cancer risk resulting from exposure to carcinogenic contaminants in site media	This alternative will only meet the standard developed through the use of this guidance if the COCs in groundwater posing potential carcinogenic risks naturally attenuate within a reasonable period of time. Land use controls will prevent short-term exposure to COCs in groundwater until risk-based standards are achieved.
Reference Doses (RfDs)	US EPA, Integrated Risk Information System	TBC	Guidance used to compute human health hazard resulting from exposure to non-carcinogens in site media	This alternative will only meet the standard developed through the use of this guidance if the COCs in groundwater posing potential carcinogenic risks naturally attenuate within a reasonable period of time. Land use controls will prevent short-term exposure to COCs in groundwater until risk-based standards are achieved.
Guidelines for Carcinogen Risk Assessment	EPA/630/p-03/001F March 2005	TBC	Guidelines for assessing cancer risk	This alternative will only meet the standard developed through the use of this guidance if the COCs in groundwater posing potential carcinogenic risks naturally attenuate within a reasonable period of time. Land use controls will prevent short-term exposure to COCs in groundwater until risk-based standards are achieved.

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TABLE 4-7

FEDERAL AND STATE CHEMICAL-SPECIFIC ARARs – ALTERNATIVE G-4  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens	EPA.630/r-03/003F March 2005	TBC	Guidance for assessing cancer risks in children	<del>This alternative will only meet this standard if groundwater that poses potential carcinogenic risks to children will naturally attenuate within a reasonable period of time. Land use controls will prevent short-term exposure until risk-based standards are achieved.</del>
Safe Drinking Water Act; National Primary Drinking Water Regulations, Maximum Contaminant Levels,	42 U.S.C. § 300f <i>et seq.</i> ; 40 C.F.R. 141, Subpart B and G	Relevant and Appropriate	Establishes maximum contaminant levels (MCLs) for common organic and inorganic contaminants applicable to public drinking water supplies. Used as relevant and appropriate cleanup standards for aquifers and surface water bodies that are potential drinking water sources.	This alternative will only meet this standard if groundwater will naturally attenuate and meet MCL standards within a reasonable time frame. Land use controls will prevent short-term exposure until MCL standards are reached.
Safe Drinking Water Act; National Primary Drinking Water Regulations, Maximum Contaminant Level Goals,	42 U.S.C. § 300f <i>et seq.</i> ; 40 C.F.R. 141, Subpart F	Relevant and Appropriate for non-zero MCLGs only.	Establishes maximum contaminant level goals (MCLGs) for public water supplies. <u>Non-zero MCLGs are health goals for public drinking water sources. These unenforceable health goals are available for a number of organic and inorganic compounds. MCLGs are set at levels that would result in no known or expected adverse health effects with an adequate margin of safety. Non-zero MCLGs are to be used as cleanup goals when MCLs have not been established for a particular COC.</u>	This alternative will only meet this standard if groundwater will naturally attenuate and meet MCLG standards within a reasonable time frame. Land use controls will prevent short-term exposure until MCLG standards are reached.

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TABLE 4-7

FEDERAL AND STATE CHEMICAL-SPECIFIC ARARs – ALTERNATIVE G-4  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
Health Advisories	EPA Office of Drinking Water, EPA-822-R-04-003, January, 2004	TBC	Health Advisories are estimates of risk due to 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 mg/l.	This alternative will only meet the standards <u>developed through the use of this guidance</u> if non-carcinogenic risk resulting from exposure to compounds identified in the Health Advisory (e.g., manganese) <u>is addressed by natural attenuation</u> within a reasonable time frame. Land use controls will prevent short-term exposure until protective levels are reached.

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Massachusetts Drinking Water Regulations	310 CMR 22.00	Relevant and Appropriate	Establish enforceable state MCLs for organic and inorganic contaminants that have been determined to adversely affect human health in public drinking water systems. Will be used where state standard is more stringent than federal standard. Also establishes state MCLGs which are non-enforceable health goals for public drinking water systems.	This alternative will only meet this standard if groundwater will naturally attenuate and meet state MCL and MCLG standards within a reasonable time frame. Land use controls will prevent short-term exposure until state MCL and MCLG standards are reached.
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TABLE 4-6

FEDERAL AND STATE ACTION-SPECIFIC ARARs – ALTERNATIVE G-3  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
<b>Federal</b>				
Resource Conservation and Recovery Act (RCRA)	42 USC § 6901 <i>et seq.</i>	Applicable	Federal standards used to identify, manage, and dispose of hazardous waste. Massachusetts has been delegated the authority to administer the RCRA standards through its state hazardous waste management regulations	Specific state hazardous waste standards authorized under the Act would apply when determining whether or not a solid waste is hazardous, either by being listed or by exhibiting a hazardous characteristic, such as contaminated purge water from groundwater sampling or contaminated material generated from well installation or maintenance. Existing data do not indicate that any wastes will be hazardous.
RCRA, Interim Status TSD Standards, Chemical, Physical and Biological Treatment	40 C.F.R. Subpart Q	Relevant and Appropriate	The regulations in this subpart apply to the treatment of hazardous wastes by chemical, physical, or biological methods in other than tanks, surface impoundments, and land-treatment facilities. Treatment reagents must not be placed in the treatment process or equipment if they could cause the treatment process or equipment to rupture, leak, corrode, or otherwise fail before the end of its intended life. Inspections are required to make sure treatment process is operating correctly.	In-situ treatment using bioremediation and chemical oxidation will be conducted in compliance with these standards, in particular regarding the handling and management of treatment chemicals.
Underground Injection Control	40 C.F.R. 144, 146, 147, 1100	Relevant and Appropriate	These regulations address the discharge of wastes, chemicals or other substances into the subsurface. The federal UIC program designates injection wells incidental to aquifer remediation and experimental technologies as Class V wells authorized by rule that do not	These standards regulate the <u>injection of biological or chemical substances into the groundwater. In-situ treatment using bioremediation and chemical oxidation will be conducted in compliance with these standards.</u>

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TABLE 4-8

FEDERAL AND STATE LOCATION-SPECIFIC ARARs – ALTERNATIVE G-4  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
<b>State</b>				
Massachusetts Endangered Species Act	M.G.L. Ch. 131A; 321 C.M.R. 10.00	Applicable	Sets out authority to research, list, and protect any species deemed endangered, threatened, or of other special concern. Actions must be conducted in a manner that minimizes the effect on listed Massachusetts species.	A state-listed species of special concern (Eastern Box Turtle) has been observed at the base, but not at the Building 82 site. Appropriate measures will be taken during remedial actions to ensure that the species is not harmed by the alternative

TABLE 4-9

FEDERAL AND STATE ACTION-SPECIFIC ARARs – ALTERNATIVE G-4  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
<b>Federal</b>				
Resource Conservation and Recovery Act (RCRA)	42 USC § 6901 <i>et seq.</i>	Applicable	Federal standards used to identify, manage, and dispose of hazardous waste. Massachusetts has been delegated the authority to administer the RCRA standards through its state hazardous waste management regulations	Specific state hazardous waste standards authorized under the Act would apply when determining whether or not a solid waste is hazardous, either by being listed or by exhibiting a hazardous characteristic, such as contaminated purge water from groundwater sampling or contaminated material generated from well installation or maintenance. Existing data do not indicate that any wastes will be hazardous.
Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites	OSWER Directive 9200.4-17P (April 21, 1999)	TBC	EPA guidance regarding the use of monitored natural attenuation for the cleanup of contaminated soil and groundwater. In particular, a reasonable time frame for achieving cleanup standard through monitored attenuation would be comparable to that which could be achieved through active restoration.	This monitored natural attenuation alternative will only meet these standards if natural attenuation will attain all groundwater cleanup standards within a reasonable time frame. It is estimated that all cleanup standards will be achieved in 15 years.
Draft Guidance for Evaluating Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)	OSWER EPA530-D-02-004 (November 2002)	TBC	Guidance for assessing and mitigating vapor intrusion risk	Since the future use includes housing, offices, and commercial/retail, assessment and mitigation of potential vapor intrusion risks will be conducted in accordance with the guidance until such time as groundwater cleanup levels are achieved.

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TABLE 4-9

FEDERAL AND STATE ACTION-SPECIFIC ARARs – ALTERNATIVE G-4  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
<b>State</b>				
Hazardous Waste Rules for Identification and Listing of Hazardous Wastes,	310 CMR 30.100	Applicable	Establish requirements for determining whether wastes are hazardous. Defines listed and characteristic hazardous wastes.	These regulations would apply when determining whether or not a solid waste <u>generated as part of this remedial action is classified as hazardous</u> , either by being listed or by exhibiting a hazardous characteristic, such as contaminated purge water from groundwater sampling or contaminated material generated from well installation or maintenance. Existing data do not indicate that any wastes will be hazardous.
Hazardous Waste Management Rules – Requirements for Generators	310 CMR30.300	Applicable	<u>These regulations contain requirements for generators of hazardous waste. The regulations apply to generators of sampling waste and to the accumulation of waste prior to off-site disposal.</u>	<u>Wastes generated during remedial actions that are determined to be hazardous will be handled in compliance with the substantive requirements of these regulations.</u>
Certification of Well Drillers and Filing of Well Completion Reports	313 CMR 3.03 (predecessor regulations); 310 CMR 46	Applicable	Requirements relating to well abandonment	Well drillers will follow all regulatory requirements for drilling and decommissioning of wells.
Standard References for Monitoring Wells	WSC-310-91 MADEP April 1991	TBC	This guidance describes the technical requirements for locating, drilling, installing, sampling and decommissioning monitoring wells.	Applies to wells installed for monitoring and/or groundwater treatment.

**Deleted:** Hazardous wastes generated as part of the remedial action will be handled in compliance with the requirements of these regulations.

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TABLE 4-9

FEDERAL AND STATE ACTION-SPECIFIC ARARs – ALTERNATIVE G-4  
 BUILDING 82 FEASIBILITY STUDY  
 NAVAL AIR STATION SOUTH WEYMOUTH  
 WEYMOUTH, MASSACHUSETTS

Requirement	Citation	Status	Synopsis	Evaluation/Action To Be Taken
Erosion and Sediment Control Guidance		To Be Considered	This guidance includes standards for preventing erosion and sedimentation.	Remedial actions, particularly installation and maintenance of wells and other components of the remedy, will be managed to control erosion and sedimentation.

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