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LETTER AND COMMENTS ON BEHALF OF SEACOAST ANTI POLLUTION LEAGUE ON U S NAVY RESPONSE TO COMMENTS REGARDING DRAFT SITE SCREENING REPORT FOR SITES 30, 31 AND 32 NSY PORTSMOUTH ME
7/29/1999
LEPAGE ENVIRONMENTAL SERVICES

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July 29, 1999

Peter Vandermark
Seacoast Anti-Pollution League
P. O. Box 1136
Portsmouth, New Hampshire 03802

Subject: Review Comments, *Draft Site Screening Report, Building 184,(Site 30), West Timber Basin (Site 31), and Topeka Pier (Site 32)*

Dear Mr. Vandermark:

As you requested, we are transmitting comments on the responses to the Seacoast Anti-Pollution League's (SAPL) May 2, 1999, comments on the February 1999 *Draft Site Screening Report, Building 184,(Site 30), West Timber Basin (Site 31), and Topeka Pier (Site 32)*. Many of our May 2nd comments and questions were addressed by the Navy's responses. For the following responses that require additional clarification, we have retained the comment numbers and repeated the comment from our May 2nd letter:

2. Page ES-1, Executive Summary, paragraph 2. Media Protection Standards (MPSs) are mentioned here and throughout the report. However, according to pages 14-4 and 14-5 of the April 1998 *Site Screening Work Plan, Building 184,(Site 30), West Timber Basin (Site 31), and Topeka Pier (Site 32)*, the MPSs were replace with Preliminary Remediation Goals (PRGs) following the Shipyard's transition from the RCRA program to CERCLA. We also note that the *Draft Field Investigation Report, Site 10 (Building 238) and Site 29 (Teepee Incinerator)* which we recently reviewed refers to PRGs, not MPSs. For consistency's sake, PRG, not MPS, should be used throughout the report. If it is not appropriate to use PRGs in this report, an explanation should be provided.

Response: The MPSs were established as part of Portsmouth Naval Shipyard's RCRA Corrective Action Permit prior to the shipyard being placed on the National Priorities List. Under CERCLA, PRGs are not established until the feasibility study phase. Therefore, The Navy believes that MPS terminology is more appropriate so the levels are not confused with site specific PRGs established as part of the feasibility study.

Additional Comment: The Navy suggests using the MPS terminology to avoid confusion with site-specific PRGs. Unfortunately, some confusion already exists. As we noted in our original

comment, the April 1998 *Site Screening Work Plan* (pages 14-4 and 14-5) states that PRGs have already been developed from MPSs, and that the site screening data would be compared to applicable PRGs and other criteria as the first step in the screening process. Therefore, we suggest the Navy add a passage to the subject document explaining the Navy's current preference for MPS terminology and how it relates to the terminology used in the data evaluation procedures described in the April 1998 *Site Screening Work Plan*. In addition, the Navy should clarify why MPS terminology is preferred for this report, but not for the Sites 10 and 29 report we recently reviewed.

4. Page ES-1, Executive Summary, paragraph 3. *"Neither the MPSs or the Region III RBCs for soils considers the potential for contaminants leaching from soil to groundwater. Hence, contaminant concentrations in soil were also compared to the generic Federal Soil Screening Levels (SSLs)."*

Page 14-5 of the April 1998 Work Plan states the following: *"Note that the PRGs for soil do not take into consideration the leaching from soil to groundwater. However, the leaching of chemicals from soil to groundwater would be accounted for by evaluating the concentrations in groundwater and the modeling of contaminant migration from onshore to offshore environment (discussed in Section 14.3.3)."* Why did the Navy deviate from the method described in the Work Plan? Is the use of SSLs more conservative or more representative? Please provide the rationale for using SSLs in place of the approach described in the Work Plan and the effect on risk screening.

Response: Comment noted. The Navy used the Federal Soil Screening Levels (SSLs) for Transfers from Soil to Groundwater, and from Soil to Air as a conservative screen to determine which chemicals in soil may be leaching into groundwater. Using SSLs or other promulgated pollutant mobility criteria is a common approach used for a screening investigation. Hence the approach used is considered more representative at this stage of the RI process. Groundwater modeling is typically not performed until after the site is adequately characterized. Performing modeling prior to the site bing adequately characterized may require the modeling be performed again. The Navy believes using SSLs in place of the approach described in the Work Plan will indicate that more analytes have a potential transfer from soil to groundwater or air than the groundwater modeling originally proposed.

Additional Comment: The information in this response (both the rationale and effect on risk screening) must be added to the report as it explains a significant departure from the procedures and processes described in the final Work Plan.

8. Page ES-3, Executive Summary, SITE 30 (BUILDING 184), Conclusions, paragraph 2. "*Based on the findings of the site screening, the horizontal extent of contamination appears to be adequately defined.*"

It is premature to state that the horizontal extent of contamination is defined, particularly when the Navy acknowledges in the subsequent section that the source of the contamination at Building 184 has not yet been identified, and that additional investigations will be required. Furthermore, as the Maine Department of Environmental Protection (MEDEP) points out in General Comment 3 of their April 8, 1999, letter, the timing of water level measurements in tidally-influenced wells appears to introduce some uncertainty into interpretations of groundwater flow directions. Specifically, the peaks of tidal influence and the lag after high and low tide for individual wells must be determined before groundwater flow directions based on contouring water level measurements are interpreted. With regard to groundwater flow direction at Building 184, MEDEP calculations resulted in an interpretation that differs significantly from the flow direction presented in the report, and indicates that only one of the four monitoring wells appears to be downgradient of Building 184. We concur with the MEDEP's suggestion that automated or repeated water level measurements be employed at tidally-influenced wells to ensure that maximum and minimum water levels, as well as lag time, are determined prior to contouring water level data, and look forward to a reevaluation of groundwater flow directions for all three sites.

Response: Please see our response to MEDEP comment no. 3 and MEDEP comment no. 16. Any subsequent fieldwork regarding Building 184 will be described in a work plan to be reviewed [by] EPA, MEDEP, and the RAB.

Additional Comment: We disagree with portions of the Navy's responses to MEDEP comments no. 3 and 16. As the MEDEP commented in their July 16, 1999, letter, it is important to understand the timing and magnitude of the absolute highest and lowest water levels in tidally-influenced wells. Without this knowledge, it is possible that "downgradient" wells are not truly downgradient of the sites they supposedly monitor. We concur with the MEDEP that flowpaths, contours, and flowlines must be accurately determined.

10. Page ES-4, Executive Summary, SITE 31 (WEST TIMBER BASIN), Field Investigation Activities, paragraph 2. What is the source of the ash mentioned in the fourth line? What are the Navy's plans for dioxin testing at Site 31?

Additional Comment: The Navy's response does not address the second question of our comment. What are the Navy's plans for dioxin testing at Site 31?

12. Page ES-6, Executive Summary, SITE 31 (WEST TIMBER BASIN), Recommendations. Is the Phase II Investigation actually a Remedial Investigation? Please clarify. Will the additional investigations also evaluate the potential impact of Site 31 on offshore receptors? The Navy proposes to conduct additional soil sampling at WTB-SB02, WTB-SB07, WTB-SB05, and WTB-SB06. Yet maximum concentrations for a number of inorganic compound exceedances were detected at WTB-SB03 and WTB-SB04. Therefore, these areas, as well as the potential for bedrock contamination, must also be investigated.

Response: The recommendation for additional work would follow under the PA/SI process and would be considered an Extended Site Inspection. Impacts to offshore receptors were evaluated as part of the Navy's Estuarine Ecological Risk Assessment.

Additional Comment: The Navy's response only addresses the first two issues in our comment, and not our concerns about the proposed soil sampling and the need for investigating potential bedrock contamination. In addition, the Navy states that impacts to offshore receptors were evaluated in the Estuarine Ecological Risk Assessment. However, the risk assessment field work was performed several years ago, well before the investigation of Sites 30, 31, and 32. How does the Estuarine Ecological Risk Assessment address new or on-going site investigations?

14. Page ES-9, Executive Summary, SITE 32 (TOPEKA PIER), Recommendations. Is the Phase II Investigation actually a Remedial Investigation? Please clarify. We disagree that additional investigations are only needed in the vicinity of Buildings 158 and 154, and that the remaining areas of Site 32 do not require further work. The highest concentrations of mercury and lead, which also exceed screening criteria, occur at TP-SB09 and TP-SB10, respectively. Therefore, these areas must be evaluated as well. As we pointed out in comment 8, above, we have concerns regarding the interpretation of groundwater flow directions based on the water levels measured in tidally-influences wells. Uncertainties regarding groundwater flow directions must be addressed. Given the proximity of Site 32 to the shore, the additional investigations must also assess the potential impact on offshore receptors, including the effects of the sewer and drainage pipe discharges to Back Channel.

Response: Please see our responses to EPA comment no. 30 [The Navy will do a quantitative risk assessment] and SAPL comment nos. 8 and 12.

Additional Comment: As we have noted above, we still have outstanding concerns regarding the Navy's responses to SAPL comments nos. 8 and 12. In addition, the responses cited do not address the potential impact on offshore receptors, including the effects of the sewer and drainage pipe discharges to Back Channel.

19. Page 1-9, Section 1.4.3.1, Site Description. "Burnable material" is described as being dumped in the timber basin at Site 32. Was the material actually burned at the site? The April 1998 Work Plan also mentions disposal of "various cans and drums". This information should be added to the report. A number of buildings are listed as being constructed during 1941-1945. However, there is no information concerning the materials stored, used, or disposed, or the activities carried out at the individual buildings. This doesn't help in understanding potential historical sources of contamination at the Topeka Pier Site. For example, Buildings 177, 197, and 112 were used as storehouses. Did the materials stored have the potential to contaminate the site? Building 176 housed torpedo overhaul and storage. What materials were used in the overhaul process. What's involved in overhauling a torpedo? Additional background information is needed for historical perspective and to understand potential sources of contamination. Information concerning current drainage discharges to Back Channel should also be provided. For example, are there any floor drains currently in use in buildings at Site 32? If so, where and what do they discharge?

Response: General historical information was provided during the work plan and reiterated for the report. As the PNS local historian locates additional information, the information will be updated.

Additional Comment: We think it is important to include all the historic information described in the Work Plan in this report as it will be the final version of this report, not the Work Plan, that is likely to be reviewed in the future when additional investigations are planned and/or the feasibility study is being written. The Navy's response does not appear to address our questions regarding **current** drainage discharges and floor drains.

23. Page 2-3, Section 2.2.1, <u>Monitoring Well Installation and Development</u>, paragraph 4. According to the Work Plan (page 4-2), well development was not to occur until at least 14 days after well installation in order to allow the grout to cure. However, the Well Development Data Sheets included in Appendix B indicate development of nine out of sixteen wells occurred before the 14-day period had passed. Of particular concern are the development of wells TP-MW06 and TP-MW07 just 2 and 3 days after well installation was completed. Why did development occur in less than 14 days after well installation at over half the wells? How have well characteristics and sample quality been effected? In addition, wells were reportedly developed until turbidity in the well discharge was less than 10 Nephelometric Turbidity Units (NTUs). The Work Plan stated on page 4-4 that development would continue until turbidity was less than 5 NTUs. What is the technical basis for deviating from the Work Plan and what are the potential impacts of changing the development procedure?

Response: Due to unanticipated depths required to extend borings (to more than 40 feet instead of 20-25 feet in Topeka Pier, for example), wells ewre developed early to maintain the schedule. Grout will set within 24 hours but continue to cure. The strength or chemical structure of the grout is not effected by development of the well within 2-3 days after installation. In addition, sample quality is unaffected. Wells were developed until turbidity was below 5 NTUs according to the Work Plan except in wells that the recharge rate was low and could not be developed to 5 NTUs. The sentence will be revised to reflect this.

Additional Comment: The text revision should also state that the Work Plan was not followed with regard to allowing 14 days to pass before developing completed wells, and provide the technical basis for stating that strength and chemical nature were not compromised and the data to support the statement that sample quality is unaffected.

25. Pages 2-4 & 2-5, Section 2.2.3, Groundwater Level Measurements. Comment 8, above, applies to this section.

Response: Please see our response to SAPL comment no. 8 and MEDEP general comment no. 3.

Additional Comment: As we have noted above, we still have outstanding concerns regarding the Navy's responses to SAPL comment no. 8 and MEDEP comment no. 3.

28. Pages 2-7 & 2-8, Section 2.6.2, Data Validation Qualifiers. A brief description of the data qualifiers listed in this section should be included as a footnote on all tables in the report where the qualifiers are applied to analytical results.

Response: Disagree. The table are adequate as presented.

Additional Comment: We disagree that the tables are adequate as presented. The data qualifiers are used in tables throughout the report, but are never explained or defined in the tables, nor is the reader directed to the appropriate place in the text for definitions. For readers that are thoroughly versed in data reporting, this may be acceptable. But other reader must either guess or leaf through the report to find the definitions. The data qualifier definitions must be included as footnotes to all tables where they are used or, at a minimum, a footnote should be included directing the reader to the appropriate pages of the text for the definitions.

30. Page 2-8, Section 2.7.1, Comparison with Preliminary PRGs and Other Criteria, paragraph 1. Why was the average concentration of the field duplicate pair used? To be more conservative, the higher of the two concentrations should be used.

Response: Please see our response to MEDEP specific comment no. 10.

Additional Comment: We concur with the MEDEP's July 16, 1999, comment on the response.

31. Page 2-9, Section 2.7.1, Comparison with Preliminary PRGs and Other Criteria, paragraph 2. Comment 4, above, concerning the use of SSLs applies to this section.

Response: Please see our response to SAPL comment no. 4.

Additional Comment: As we noted in our comment on the response to comment 4, the information in the response (both the rationale and effect on risk screening) must be added to the report as it explains a significant departure from the procedures and processes described in the final Work Plan.

34. Page 3-1, Section 3.1, SOIL INVESTIGATION, paragraph 2. "*Borings B184-SB03 and B184-SB04 were installed to evaluate the soils downgradient of the site.*"

Based on the groundwater contours drawn on Figure 3-5, it appears that only B184-SB04 is actually downgradient of the acid pit in Building 184 (see comment 8, above, as well).

Response: Agreed. The statement "Borings B184-SB03 and B184-SB04 were installed to evaluate the soils downgradient of the site." was the rationale of the well locations provided in the Work Plan.

Additional Comment: We do not disagree with the rationale for well placement as stated in the Work Plan. Our concern is that we were unable to find a passage in the Site Screening Report that clearly states that boring B184-SB03 is **not** downgradient of the acid pit, and that only B184-SB04 is actually downgradient of the acid pit in Building 184. This information should be added to the report.

43. Pages 3-9 - 3-14, Section 3.5, RISK ASSESSMENT SCREENING - COMPARISON WITH MPSs AND OTHER CRITERIA. A number of our previous comments (for example 2, 3, 4, 8, 11, 36, 38, 40, 41) apply to the validity and completeness of the interpretations in this section. We look forward to revisiting the risk assessment screening once further definition of the extent of contamination and delineation of groundwater flow and contaminant migration is completed.

Response: Please see our response to SAPL comments 2, 3, 4, 8, 11, 36, 38, 40, 41.

Additional Comment: As we have noted above, we still have outstanding concerns regarding the Navy's responses to SAPL comments 2, 4, and 8.

44. Page 3-10, Section 3.5.1, Surface Soil, paragraph 2. *"If a quantitative risk assessment were to follow the screening process, chemicals that exceeded only site-specific background values would be eliminated from further evaluation. ... Additionally, any chemical concentrations in excess of the USEPA Region III residential RBCs but below background concentration would also be eliminated from further evaluation."*

This statement is at odds with the procedure presented in item 4 on page 14-6 of the April 1998 Work Plan. Exceedances of background or RBCs in soil were to be followed up with a risk assessment, not dropped entirely from consideration. Please clarify.

Response: A recent Portsmouth risk assessment provided new background numbers which are not final yet. Hence, it did not make sense to recommend a risk assessment based solely on exceedences of draft numbers that may be subject to changes. Additionally, it doesn't make sense to recommend a risk assessment if site concentrations are representative of background as the presence of chemicals may not be site related.

Additional Comment: The issue is not the fact that background concentration numbers are still in draft form. The Navy's statement, as quoted from the Site Screening Report, represents a significant departure from the procedures contained in the final Work Plan. This deviation from the Work Plan needs to be clearly identified as such in the Site Screening Report, and the rationale and justification for the change must be provided as well. The last sentence of the Navy's response states that the presence of chemicals may not be site related. Our concern is that the presence of chemicals may be site related.

45. Page 3-10, Section 3.5.1, Surface Soil, paragraph 3, and subsequent sections. *"Because no SSLs exist for Freon-113,..., these compounds could not be further evaluated for migration potential."*

Similar passages occur elsewhere in the report, and this comment applies to all such wording. The April 1998 Work Plan identified a means of evaluating migration potential (see comment 4, above). Since application of SSLs is impossible, will the Navy now follow the method outlined in the Work Plan?

Response: Please see our response to SAPL comment no. 4.

Additional Comment: The Navy's response to comment 4 focuses on the use of SSLs, rather than the procedure described in the Work Plan, to determine which chemicals in soil may be leaching into groundwater. The response does not address what the Navy will do should there not be an SSL available for a potential contaminant, which is the point of our comment 45. Therefore, comment 45 still requires a response.

50. Page 4-3, Section 4.2.3, Water Level Measurements. See comment 8, above, regarding water level measurements and the resulting interpretation of groundwater flow direction.

Response: Please see our response to SAPL comment no. 8 and MEDEP general comment no. 3.

Additional Comment: As we have noted above, we still have outstanding concerns regarding the Navy's responses to SAPL comment no. 8 and MEDEP comment no. 3.

51. Page 4-5, Section 4.3.2, Hydrogeology. Why is there almost a 1-foot difference in water levels measured at the two tidal gages, as reported in the second paragraph? Our concerns regarding water level measurements and the resulting interpretation of groundwater flow direction, as outlined in comment 8, above, also apply here.

Response: Please see our response to SAPL comment no. 8 and MEDEP general comment no. 3.

Additional Comment: As we have noted above, we still have outstanding concerns regarding the Navy's responses to SAPL comment no. 8 and MEDEP comment no. 3. In addition, the responses to those two comments do not address the first sentence of comment 51.

52. Page 4-10, Section 4.4.3, Groundwater, paragraph 1. Why is the turbidity high at WTB-MW04? Is more well development needed? Was a properly sized well screen installed?

Response: WTB-MW04 was installed and developed in accordance with the Work Plan.

Additional Comment: This response does not answer the questions in comment 52.

53. Pages 4-11 - 4-16, Section 4.5, RISK ASSESSMENT SCREENING - COMPARISON WITH MPSs AND OTHER CRITERIA. A number of our previous comments (for example 2, 3, 4, 8, 11, 36, 41) apply to the validity and completeness of the interpretations in this section. We look forward to revisiting the risk assessment screening once further definition of the extent of contamination and delineation of groundwater flow and contaminant migration is completed.

Response: Please see our response to SAPL comments 2, 3, 4, 8, 11, 36, 41.

Additional Comment: As we have noted above, we still have outstanding concerns regarding the Navy's responses to SAPL comments 2, 4, and 8.

55. Page 4-12, Section 4.5.1, Surface Soil, paragraph 2. *"If a quantitative risk assessment were to follow the screening process, chemicals that exceeded only site-specific background values would be eliminated from further evaluation. ... Additionally, any chemical concentrations in excess of the USEPA Region III residential RBCs but below background concentration would also be eliminated from further evaluation."*

This statement is at odds with the procedure presented in item 4 on page 14-6 of the April 1998 Work Plan. Exceedances of background or RBCs in soil were to be followed up with a risk assessment, not dropped entirely from consideration. Please clarify.

Response: A recent Portsmouth risk assessment provided new background numbers which are not final yet. Hence, it did not make sense to recommend a risk assessment based solely on exceedences of draft numbers that may be subject to changes. Additionally, it doesn't make sense to recommend a risk assessment if site concentrations are representative of background as the presence of chemicals may not be site related.

Additional Comment: The issue is not the fact that background concentration numbers are still in draft form. The Navy's statement, as quoted from the Site Screening Report, represents a significant departure from the procedures contained in the final Work Plan. This deviation from

the Work Plan needs to be clearly identified as such in the Site Screening Report, and the rationale and justification for the change must be provided as well. The last sentence of the Navy's response states that the presence of chemicals may not be site related. Our concern is that the presence of chemicals may be site related.

58. Pages 4-13 & 4-14, Section 4.5.2, Subsurface Soil. Comment 55, above, applies to this section.

Response: Please see our response to SAPL comment no. 55.

Additional Comment: As noted above, we still have outstanding concerns regarding the Navy's response to SAPL comment no. 55.

60. Page 4-15, Section 4.5.3, Groundwater, last paragraph. Comment 55, above, applies to this section.

Response: Please see our response to SAPL comment no. 55.

Additional Comment: As noted above, we still have outstanding concerns regarding the Navy's response to SAPL comment no. 55.

63. Pages 4-35 - 4-38, Tables 4-5 & 4-6. There are numerous instances tabulated in Table 4-5 where the numerical detection limit was significantly greater than the Minimum Detection Limit (MDL). This affects the frequency of detections listed in Table 4-6. The relatively high numerical detection limits also exceed screening criteria in several instances. Therefore, the actual number (and possibly magnitude) of exceedances may be greater than what's identified in Table 4-6 and elsewhere in the report. For example, the numerical detection limit for lead exceeded the MCL in two out of five samples. The MDL for thallium exceeds both the MCL and the Maine MEG by a factor of at least two, and the numerical detection limit was as much as 100 times the MEG. The Navy must explain why the MDLs were not attained and how the elevated numerical detection limits affect the results of and confidence in the risk screening process.

Response: The best available technology was utilized for the analysis of these samples, hence it is not possible (using USEPA methodology) to obtain detection limits much lower than the MDL/Instrument Detection Limits (IDL) listed in tables 4-5 and 4-6. The nondetects reported at

levels higher than the MDL/IDL are resultant of adjusting the detection limit for sample volume and dilution factors. It is not uncommon for samples to be diluted due to matrix interferences. These matrix interferences can be caused by the presence of nontarget analytes present in the sample matrix (e.g., Chloride and/or bromide due to saline water samples). These elevated detection limits due to matrix interference could potentially be masking or diluting out some analytes. This can potentially lead to the underestimation of risk. If it is determined that a risk assessment will be performed for this site, the presence of elevated detection limit results will be discussed in the uncertainties section of the risk assessment.

Additional Comment: We look forward to revisiting this issue during risk assessment. In the meantime, the text of this report should include a statement that the actual number (and possibly magnitude) of screening criteria exceedances may be greater than what's identified in Table 4-6 and elsewhere in the report. In addition, for future sampling events, would collection of additional sample volume reduce the number of nondetects exceeding MDLs?

67. Page 5-4, Section 5.2.3, Water Level Measurements. See comment 8, above, regarding water level measurements and the resulting interpretation of groundwater flow direction.

Response: Please see our response to SAPL comment no. 8 and MEDEP general comment no. 3.

Additional Comment: As we have noted above, we still have outstanding concerns regarding the Navy's responses to SAPL comment no. 8 and MEDEP comment no. 3.

69. Page 5-5, Section 5.3.2, Hydrogeology. This section should include a discussion of the seeps along Back Channel - where they are located, how they relate to the current understanding of the stratigraphy and groundwater flow directions at the site, and how contaminant migration occurred and is likely to occur. We also note that "oily" or petroleum odors and elevated PID responses occur at or very near the contact between the fill material and the underlying Presumpscot Formation. This section should also consider the vertical distribution of contamination relative to groundwater flow direction. The discussion of water level changes in response to the tide on page 5-6 demonstrates the need to better define the relationship between groundwater and tide level measurements (see comment 8, above).

Response: Please see our response to MEDEP comment no. 3 and SAPL comment no. 12.

Additional Comment: MEDEP comment no. 3 and the Navy's response only addresses the last sentence of this comment. As noted above, we still have outstanding concerns regarding the

Navy's response to MEDEP comment no. 3. SAPL comment no. 12 deals with the West Timber Basin, not the Topeka Pier site. Therefore, comment 69 still requires a response.

70. Pages 5-6 - 5-21, Section 5.4, NATURE AND EXTENT OF CONTAMINATION. This section presents the analytical detections of contamination in soils and groundwater at Site 32. The reader's understanding of the significance of the constituents detected (as well as those not detected) would be greatly enhanced if additional background information about the materials used, stored, and disposed at the various locations was provided (see comment 19, above).

Response: Please see our response to EPA Specific Comment No. 23.

Additional Comment: EPA comment no. 23 addresses petroleum hydrocarbon analysis of subsurface soils at soil borings TP-SB11 and TP-SB12. Therefore, comment 70 still requires a response.

74. Page 5-12, Section 5.4.2, Subsurface Soil, Upgradient. *"No PAHs, pesticides, or PCBs were detected in upgradient locations."*

This statement implies that samples were collected at upgradient locations in addition to TP-SB01. If that is the case, these locations must be clearly identified in the text and on the appropriate maps. Please clarify or correct. Given the extent of Site 32, it would be appropriate to have more than one upgradient location.

Response: The sentence will be revised to read: "No PAHs, pesticides, or PCBs were detected at the upgradient location."

Additional Comment: We reiterate the last sentence of our comment that, given the extent of Site 32, it would be appropriate to have more than one upgradient location.

78. Page 5-15, Section 5.4.2, Subsurface Soil, Downgradient Edge of Site 32, paragraph 4. The number of site-wide maximum concentrations of contaminants at the downgradient edge of Site 32 highlights the importance of understanding how the site's hydrogeologic characteristics control contaminant migration that affects offshore areas (see comment 69, above).

Response: Please see our response to MEDEP comment no. 3 and SAPL comment no. 12.

Additional Comment: As noted above, we still have outstanding concerns regarding the Navy's response to MEDEP comment no. 3. SAPL comment no. 12 deals with the West Timber Basin, not the Topeka Pier site. Therefore, comment 78 still requires a response.

82. Pages 5-19 - 5-21, Section 5.4.3, Groundwater. This section needs a more in-depth discussion of hydrogeologic controls on contaminant migration. This includes information about how seeps along Back Channel relate to the hydrogeology of Site 32 and how onshore contamination impacts offshore receptors, as well as a description of potential preferred contaminant migration pathways. (see comment 69, above).

Response: Please see our response to SAPL comment no. 69 [which refers to MEDEP comment no. 3 and SAPL comment no. 12).

Additional Comment: As noted above, we still have outstanding concerns regarding the Navy's response to MEDEP comment no. 3. SAPL comment no. 12 deals with the West Timber Basin, not the Topeka Pier site. Therefore, comment 82 still requires a response.

83. Page 5-20, Section 5.4.3, Groundwater, paragraph 2. This paragraph focuses on the information presented in Tables 5-6 and 5-7. Virtually none of the MDLs listed in Table 5-6 were met, and, as we note in comment 63, above, the relatively high numerical detection limits also exceed screening criteria in several instances. So enumerating positive detections in the text and in Table 5-7 is a bit misleading. The actual number (and possibly magnitude) of exceedances may be greater than what's identified Table 5-7 and elsewhere in the report. The Navy must explain why the MDLs were not attained and how the elevated numerical detection limits affect confidence in the risk screening process.

Response: The best available technology was utilized for the analysis of these samples, hence it is not possible (using USEPA methodology) to obtain detection limits much lower than the MDL/Instrument Detection Limits (IDL) listed in tables 4-5 and 4-6. The nondetects reported at levels higher than the MDL/IDL are resultant of adjusting the detection limit for sample volume and dilution factors. It is not uncommon for samples to be diluted due to matrix interferences. These matrix interferences can be caused by the presence of nontarget analytes present in the sample matrix (e.g., Chloride and/or bromide due to saline water samples). These elevated detection limits due to matrix interference could potentially be masking or diluting out some analytes. This can potentially lead to the underestimation of risk. If it is determined that a risk assessment will be performed for this site, the presence of elevated detection limit results will be discussed in the uncertainties section of the risk assessment.

Additional Comment: We look forward to revisiting this issue during risk assessment. In the meantime, the text of this report should include a statement that the actual number (and possibly magnitude) of screening criteria exceedances may be greater than what's identified in the report. In addition, for future sampling events, would collection of additional sample volume reduce the number of nondetects exceeding MDLs?

84. Pages 5-21 - 5-27, Section 5.5, RISK ASSESSMENT SCREENING - COMPARISON WITH MPSs AND OTHER CRITERIA. A number of our previous comments (for example 2, 3, 4, 8, 11, 36, 41, 83) apply to the validity and completeness of the interpretations in this section. We look forward to revisiting the risk assessment screening once further definition of the extent of contamination and delineation of groundwater flow and contaminant migration is completed.

Response: Comment noted.

Additional Comment: We also look forward to the resolution of issues revolving around comments 2, 4, 8, and 83.

86. Page 5-22, Section 5.5.1, Surface Soil, paragraph 3. *"If a quantitative risk assessment were to follow the screening process, chemicals that exceeded only site-specific background values would be eliminated from further evaluation. ... Additionally, any chemical concentrations in excess of the USEPA Region III residential RBCs but below background concentration would also be eliminated from further evaluation."*

This statement is at odds with the procedure presented in item 4 on page 14-6 of the April 1998 Work Plan. Exceedances of background or RBCs in soil were to be followed up with a risk assessment, not dropped entirely from consideration. Please clarify.

Response: One of the first steps in the risk assessment process would be to screen out certain compounds based upon their representative maximum concentrations to determine a list of constituents of concern (COCs) for a site, which is what was completed for this screening report. Additionally, the Facility Background Development recalculates background numbers, which have not been finalized at this time. Hence, it did not make sense to recommend a risk assessment based solely on exceedences of draft numbers that may be subject to changes. Additionally, it would not be technically sensible to recommend a risk assessment if site concentrations are representative of background as the presence of chemicals may not be site related.

Additional Comment: The issue is not the fact that background concentration numbers are still in draft form. The Navy's statement, as quoted from the Site Screening Report, represents a significant departure from the procedures contained in the final Work Plan. This deviation from the Work Plan needs to be clearly identified as such in the Site Screening Report, and the rationale and justification for the change must be provided as well. The last sentence of the Navy's response states that the presence of chemicals may not be site related. Our concern is that the presence of chemicals may be site related.

87. Page 5-23, Section 5.5.1, Surface Soil, paragraph 1. *"Because no SSLs for transfer from soil to groundwater exist for any 2-butanone,..., these compounds could not be further evaluated for migration potential."*

How will the Navy address the migration potential of these compounds?

Response: Please see our response to SAPL comment no. 45 [which refers to SAPL comment 4].

Additional Comment: The Navy's response to comment 4 focuses on the use of SSLs, rather than the procedure described in the Work Plan, to determine which chemicals in soil may be leaching into groundwater. The response does not address what the Navy will do should there not be an SSL available for a potential contaminant, which is the point of our comment 87. Therefore, comment 87 still requires a response.

90. Page 5-24, Section 5.5.2, Subsurface Soil. Comment 86, above, applies to this section.

Response: Please see our response to SAPL comment no. 86.

Additional Comment: As we noted in our additional comment on the response to SAPL comment no. 86, the issue is not the fact that background concentration numbers are still in draft form. The Navy's statement, as quoted from the Site Screening Report, represents a significant departure from the procedures contained in the final Work Plan. This deviation from the Work Plan needs to be clearly identified as such in the Site Screening Report, and the rationale and justification for the change must be provided as well. The last sentence of the Navy's response states that the presence of chemicals may not be site related. Our concern is that the presence of chemicals may be site related.

92. Page 5-26, Section 5.5.3, Groundwater, paragraph 2. Comment 86, above, applies to this section.

Response: Please see our response to SAPL comment no. 86.

Additional Comment: As we noted in our additional comment on the response to SAPL comment no. 86, the issue is not the fact that background concentration numbers are still in draft form. The Navy's statement, as quoted from the Site Screening Report, represents a significant departure from the procedures contained in the final Work Plan. This deviation from the Work Plan needs to be clearly identified as such in the Site Screening Report, and the rationale and justification for the change must be provided as well. The last sentence of the Navy's response states that the presence of chemicals may not be site related. Our concern is that the presence of chemicals may be site related.

93. Pages 5-26 - 5-27, Section 5.5.4, Risk Summary Screening. Comments 84 through 92 apply to this section.

Response: Comment noted.

Additional Comment: We look forward to the resolution of outstanding issues regarding comments 84 through 92.

97. Page 6-2, Section 6.1, SITE 30 (BUILDING 184). *"Based on the findings of the site screening, the horizontal extent of contamination appears to be adequately defined."*

As we noted in a previous comment, it is premature to state that the horizontal extent of contamination is defined, particularly when the Navy acknowledges that the source of the contamination at Building 184 has not yet been identified, and that additional investigations will be required. Additional concerns are also identified in comment 8, above.

Response: Please see our response to MEDEP comment no. 3 and MEDEP comment no. 16. Any subsequent fieldwork regarding Building 184 will be described in a work plan to be reviewed by the EPA, MEDEP, and the RAB.

Additional Comment: While we look forward to additional investigation of Site 30, we still disagree with the statement cited at the beginning of our comment. The text must be revised to state that additional investigation is required to adequately define the extent of contamination.

100. Page 6-4, Section 6.2, SITE 31 (WEST TIMBER BASIN), paragraph 5. As we pointed out in comment 12, above, additional investigations at the site should not be limited to the pickling tanks, but should also include the WTB-SB03 and WTB-SB04 area, bedrock locations, and the potential impact of Site 31 on offshore receptors.

Response: Please see our responses to EPA comment no. 29 and SAPL comment no. 12.

Additional Comment: As we noted above, the Navy's response to SAPL comment 12 does not address our concerns about the proposed soil sampling and the need for investigating potential bedrock contamination. In addition, the Navy states that impacts to offshore receptors were evaluated in the Estuarine Ecological Risk Assessment. However, the risk assessment field work was performed several years ago, well before the investigation of Sites 30, 31, and 32. How does the Estuarine Ecological Risk Assessment address new or on-going site investigations?

102. Pages 6-5 - 6-7, Section 6.3, SITE 32 (TOPEKA PIER). The discussion on these pages must include detections and exceedences for GRO and DRO, and should also address the issues regarding MDLs/numerical detection limits/screening criteria exceedances discussed in comment 83, above. This section should also touch upon the relationship between groundwater contamination at Site 32 and contaminants detected in seeps and sediment along the shore of the Back Channel. Previously-collected data should be integrated with the results of the 1998 investigation.

Response: Comment noted. Please see our responses to EPA comment no. 4, MEDEP comment no. 66, and SAPL comment nos. 12, 63, and 83.

Additional Comment: None of the responses cited address the second half of our comment: the relationship between groundwater contamination at Site 32 and contaminants detected in seeps and sediment along the shore of the Back Channel or the integration of previously-collected data with the results of the 1998 investigation. This portion of comment 102 still requires a response.

103. Page 6-7, Section 6.3, SITE 32 (TOPEKA PIER). As we noted in comment 14, above, we disagree that additional investigations are only needed in the vicinity of Buildings 158 and 154, and that the remaining areas of Site 32 do not require further work. The highest concentrations of mercury and lead, which also exceed screening criteria, occur at TP-SB09 and TP-SB10, respectively. Therefore, these areas must be evaluated as well. As we pointed out in comment 8, above, we have concerns regarding the interpretation of groundwater flow directions based on the water levels measured in tidally-influences wells. Uncertainties regarding groundwater flow directions must be addressed. Given the proximity of Site 32 to the shore, the additional

investigations must also assess the potential impact on offshore receptors, particularly the effects of the sewer and drainage pipe discharges to Back Channel.

Response: Please see our responses to EPA comment no. 30 and SAPL comment nos. 8 and 12.

Additional Comment: The Navy's response to EPA comment no. 30 states that a quantitative risk assessment will be performed to guide the additional investigation of Site 32. However, it is not clear to us how performing a risk assessment will address the uncertainties regarding groundwater flow and contaminant migration we've identified in our additional comment on the response to SAPL comment 8. The issue of providing information concerning the potential impact on offshore receptors, particularly the effects of the sewer and drainage pipe discharges to Back Channel, is still unresolved as well. As we have pointed out in other comments, we are also concerned with sample locations where MDLs exceeded screening criteria. The Navy has acknowledged that risks may be underestimated at these locations. SAPL comment 12 concerns the West Timber Basin, not the Topeka Pier site.

If you have any questions regarding the comments above, please give me a call at 207-777-1049.

Sincerely,

Carolyn A. Lepage

Carolyn A. Lepage, C.G.
President

cc: Iver McLeod, DEP
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