UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, Ca. 94105-3901

March 16, 1994

Mr. Stephen Chao
Naval Facilities Engineering Command
Western Division
900 Commodore Way, Bldg. 101
San Bruno, CA. 94066

Re: Draft Final OU1 Feasibility Study, dated February 1, 1994

Dear Mr. Chao,

The U. S. Environmental Protection Agency (EPA) has received and reviewed the subject document and submits the following comments. The proximity and potential impact of the landfills' contamination to the ecological receptors, wetlands and other habitat in these adjacent ecological areas at Moffett Field has led EPA and others (the State, NASA and some members of the Community) to conclude that additional data presently being gathered during the site wide ecological assessment should be incorporated before finalizing the feasibility study. The incorporation of groundwater into this operable unit was an important step into characterizing the potential impacts to human health, but this did not fully take effects on the surrounding ecological areas into consideration. In addition to allowing the regulators an opportunity to look at ecological assessment data, this approach will also allow us to analyze more rounds of groundwater sampling data in this area, where leaching could potentially occur.

During our conference call of March 7, 1994, EPA understood that the Revised Draft Final FS incorporating the new site wide ecological data would be submitted to the regulatory agencies no later than January, 1995. In accordance with the Federal Facilities Agreement, the Navy should provide a schedule for this delayed submittal and any other accompanying documents by the next RPM meeting (April 13th). The attached comments should be addressed in a response to comments letter and submitted along with the Revised Draft Final FS. Call me at 415-744-2383 if you have any questions.

Sincerely,

Michael D. Gill

Michael D. Gill
Remedial Project Manager
Federal Facilities Cleanup Office

cc: Elizabeth Adams (RWQCB), C. Joseph Chou (DTSC),
Ken Eichstaedt (URS), Mike Young (PRC) (Fax)

2019

REVIEW COMMENTS
DRAFT - FINAL OPERABLE UNIT 1 FEASIBILITY STUDY
NAVAL AIR STATION - MOFFETT FIELD

GENERAL COMMENTS

1. The basic premise substantiating the closure requirements of the OU-1 landfills is that they were operated as municipal waste landfills and thus should be closed as such. The Navy needs to substantiate this assumption and reconcile the background information which indicates significant quantities of hazardous waste were deposited at the landfill sites. Based on the information in the FS report, the wastes disposed of at the two landfill areas at the NAS site included transformer oil containing PCBs, various solvents and cleaners, including TCE, MEK, and toluene, asbestos, paints, pesticides, jet fuel, used lubricating oil, fuel filters (containing fuel sludge, lead compounds, and rust), and waste oil. It is doubtful, therefore, that Moffett Field would qualify as a municipal solid waste landfill, but rather is more like an industrial landfill. Why is there so much discrepancy in quantities? If the landfills are hazardous waste landfills versus municipal landfills, the closure requirements will be more rigorous than what is proposed.

2. In general, the language of the FS report should be tightened. At every seemingly possible point, the Navy inserted "qualifying" words that either implied that the risks at the site are minimal, or that questioned the validity of the data collected during the RI. These characterizations need to be eliminated from the report as they undermine the credibility of the same.

3. Numerous comments in the FS are conclusory in nature and inappropriately "characterize" the site data. Estimates of the waste disposed of at the site are characterized as "crude" (Pg. 12), detections of various hazardous substances were classified as potentially resulting from "laboratory contamination" (see, e.g., Pgs. 33, 57, 66, 68, 70), and certain health risks were described as "negligible" (e.g., Pg. 76, 152, 154). Such characterizations undermine the impartial presentation of data that is essential to provide to the remedial action decision maker and should be deleted from the final FS. Further, the Navy is not consistent in its discussion of the various hazardous substances detected at Moffett Field. When discussing the detection of various VOCs, the Navy sets forth the detected concentrations in the text of the report, in all likelihood because the concentrations are generally low. When discussing inorganic compounds (metals), the Navy fails to do so and the FS report does not consistently contain an appropriate cross-reference for a reader to readily locate this data. (see, e.g., Pgs. 28, 29, 30, 37, 55, 59-60, 63). The impact of the presence of metals at the site is not clear from a reading of the report, though an impression is clearly created that it should be minimal.

4. The issue of background levels of various contaminants in the North Base Area is discussed in this document. The questions, in order, should be: 1) is there a risk to human health because of these contaminants and 2) is the contamination naturally occurring. Background in the NBA is mentioned as undetermined at various points in the document (pp. 35, 59, 60). By following EPA's guidance sent to the Navy on March 4, 1994, the Navy will many times be able to determine if a risk is present from existing sampling data. Discussions of background do not belong in this document.

SPECIFIC COMMENTS

5. Section 1.3 The document fails to present whether or not data quality was assessed or taken into consideration during the site characterization process. The only mention of possible data quality issues occurs during discussions of spurious data points caused by laboratory contamination. The data tables located in the appendices show many qualified analytical results. These are not discussed in the text of the report and need to be referenced if done in past reports.

6. Section 1.3.1, page 13, first full paragraph. The last two sentences, beginning with "The heterogeneity of contaminant distribution . . . does not require such information (EPA 1991)" should be deleted. If such statements are necessary at all, they should be moved to a later section of the report, most likely during the discussion of potential remedial alternatives.

7. Section 1.3.2, page 17, para 1. The report indicates that the porosity for clays located below the landfill had permeability values of 10 to the minus 8 cm/s. Does this indicate low permeability?

8. Section 1.3.2, page 20, para 4. The concepts that perched water within Site 1 shows limited hydraulic connection with surrounding aquifers; that it does not exhibit outward gradients; and that it does not increase hydrostatic pressure at the landfill boundaries are fundamental to the plausibility of the recommended alternative for the site. Therefore, the support of these concepts should be expanded with gradient and pressure calculations and graphical depictions of groundwater/leachate analytical data comparisons.

9. Section 1.3.2, page 21, para 2. Identify which wells within Site 1 were considered to be completed in perched groundwater and which represent regional, hydraulically connected groundwater completions.

10. Section 1.3.3.1, page 24, third full paragraph. Reference is made to a well that was destroyed, W1-4(A1). Please explain why it was destroyed.

11. Section 1.3.3.2, page 28, para 4. This paragraph does not reflect the detections of PCBs found at depths greater than 3 feet, yet they appear on Plate 1 (W01-09, W01-10). Please add these detections to the text.

12. Section 1.3.3.5, page 30. A detailed statement is needed in this section to address the surface water-groundwater hydraulic relationship, its effect on changing groundwater gradients, and any tidal fluctuations that may be present.

13. Table 1, page 31. Table 1 should identify the units of measurement (μg/L) for the reported compounds and whether the MCL is the state or federal MCL. Also, the current MCLs for bis(2-ethylhexyl)phthalate (6 ppb), pentachlorophenol (1 ppb) and 1,1 dichloroethane (CA state MCL, 5 ppb) should be updated.

14. Section 1.3.3.5, page 32, second full paragraph, second sentence. Provide a brief description and application of the 5X/10X rule for blank contamination applied when validating data.

15. Section 1.3.3.5, page 32, third full paragraph. The presence of typical anaerobic degradation constituents may also be attributed to anoxic conditions within the landfill or aerobic contaminant degradation which is depleting available oxygen within the general vicinity of Site 1. This condition may warrant further evaluation. Water samples from within the landfill should be analyzed for carbon disulfide content to evaluate if concentrations reported in the perimeter wells are indicative of organic constituents in the native material or leachate.

16. Section 1.3.3.5, page 33, first full paragraph, second sentence. Why are seasonal effects on surface water levels relative to groundwater not fully known at this time? What is known at this time? The evaluation of this relationship is significant to the proposed alternative for this site. This point validates the need for additional rounds of groundwater sampling in this area.

17. Section 1.3.3.5, page 33, second full paragraph, last sentence. Can a partial evaluation of gradient changes within the vicinity of Site 1 be made? This sentence indicates a need for more groundwater level sampling.

18. Section 1.3.3.5, page 33, last full paragraph. The reference to acetone being a lab contaminant should be deleted. Additionally, the paragraph implies that detection limits are synonymous with waste discharge limits and that non-detects, therefore, indicate that no releases occurring from the landfill. This is somewhat inaccurate. Non-detects simply relate to the sensitivity range of the testing instruments. It does not correspond that no releases have occurred, simply that they are currently below detection limits. Should new equipment be developed with greater sensitivity ranges, current "non-detects" may be detected in the future. It would be better to state that no releases occurred above detection limits.

19. Section 1.3.3.5, page 33, last paragraph. Any statement regarding contaminant trends and plumes in groundwater must be qualified by the uncertainty of the nature of groundwater gradients in the Site 1 vicinity.

20. Section 1.3.3.5, page 34, first full paragraph. The statement in the first sentence indicating that contamination is not significantly migrating past landfill boundaries should be referenced with substantiating data. Also, reference should be made to data that support the assumption that perched water levels do not result in outward gradients which increase leachate migration. The additional data gathered in the coming months may help quantify this assumption.

21. Section 1.3.3.5, page 34, second full paragraph. The paragraph assumes that current conditions within the A2 aquifer will continue to result in an upward gradient from A2 to A1. Has there been an evaluation of the effects of vertical leachate migration from A1 to deeper aquifers if current conditions change (i.e. increased pumping from lower water bearing units, fault movement)?

22. Section 1.3.3.5, page 34, middle paragraph. The first sentence indicates that the contamination has not migrated "significantly" past landfill boundaries. The term "significantly" is subject to much interpretation and should be deleted. If it is to be used, it should be "defined", e.g., that contamination has only migrated a few feet beyond the landfill boundaries, which is not significant. (See also, Pg. 109, first paragraph).

23. Section 1.3.3.5, page 35, para 1. On the discussion of heavy metal concentrations at the site, it is noted that five are essential nutrients and will, therefore, be studied. It is not set forth whether they are hazardous substances. This is the more relevant point. (This occurs again on page 59 during the discussion of landfill #2). Near the end of the paragraph, it is noted that seasonal effects on the surface water-groundwater hydraulic relationship are not fully known. The Navy should develop this relationship with additional rounds of data gathered in the next 2 or 3 quarters.

24. pp. 36, 61 & 62 (Tables 2, 5 and 6). The tables should footnote the definition of NBA (north base area). Also, for consistency, the tables should include an upgradient/downgradient column similar to that in Table 1.

25. Section 1.3.3.5, page 37, "Conclusions for Inorganic Compounds". Metals are stated as being within "normal" ranges for metals found in groundwater in the northern portion of the NAS site. What does "normal" mean? Are the levels above safe standards? This should be explained.

26. Section 1.3.3.7, page 41, first full paragraph, fifth sentence. Has an evaluation been completed of potential landfill gas migration if the surface water bodies are no longer present? What happens if the Cargill Salt Company ceases operation and the evaporation ponds are no longer functioning?

27. Section 1.3.4, page 44, para 1. The last two sentences indicate that full characterization of the landfill refuse for the Golf Course landfill (landfill #2) is not required. This should be deleted. (See comment to page 13 above).

28. Section 1.3.5, page 44, para 2, fourth sentence. Is the 10^{-8} cm/s permeability value attributed to all Site 2 soil or only soil underlying the landfill?

29. Section 1.3.6.5, page 56, third full paragraph. Text in this paragraph should include the chronologic period the groundwater data evaluation represents (number and dates of sampling quarters, sampling rounds, etc.).

30. Section 1.3.6.5, page 57, para 1. Since perched conditions do not exist within Site 2, why is this discussion limited to perimeter wells?

31. Section 1.3.6.5, page 57, para 2. The text in this paragraph addresses groundwater contamination in both perimeter wells and landfill wells. A clear, concise statement should be included regarding the specific Site 2 area discussed in this section; the statement should indicate whether bis(2-ethylhexyl)pthalate has been detected in groundwater samples within the landfill since 1989.

32. Table 4. The table fails to identify units of measurement (μg/L) for the reported compounds and does not define the MCL as state or federal. Also, the current MCLs for bis(2-ethylhexyl)phthalate (6 ppb), pentachlorophenol (1 ppb) and 1,1 dichloroethane (CA state MCL, 5 ppb) should be updated.

33. Section 1.3.6.5, page 59, third full paragraph, last sentence. This sentence does not have any relevancy here.

34. Section 1.3.6.5, page 60, last two sentences on page. These last two sentences make little sense. It is stated that the data does not necessarily indicate that a source of metal contamination exists upgradient of the landfill "as all concentrations could likely be within normal levels." What are "normal" levels? This should be explained. As it stands now, it appears contradictory.

35. Section 1.3.6.5, page 63, "Conclusions for Inorganic Compounds". Metals are again listed as being within "normal" ranges without any definition of what "normal" is. This should be explained in better detail.

36. Section 1.3.7, page 65, para 3. The final two sentences of this paragraph state that a number of substances were detected in surface soils, sediments, and groundwater. No citation is listed for the location of this data. This should be included.

37. Section 1.3.7.1, page 66, last paragraph. In the sentence beginning, "At Site 2," a reference is made that "it has been concluded that acetone is not present at significant levels, and if ever present, has volatilized . . ." This sentence appears somewhat contradictory. Additionally, what is this conclusion based on? What are "significant" levels? Finally, what is the basis for the statement "if ever present"? These statements should be deleted unless they have data support.

38. Section 1.3.7.1, page 68, para 3. The argument that the "reducing" environment tends to dissolve and mobilize some inorganic constituents should be accompanied by references and times associated with reduction.

39. Section 1.3.7.2, page 69, para 2. The report indicates that the storm water retention pond, marsh area, and wetlands exist on the west and north of landfill #2, restricting soil gas migration in that direction. This is qualified by the phrase, "When present . . ." Does soil gas migrate in that direction during the dry season, and is there a dry season that could be of concern?

40. Section 1.3.7.3, page 70, first full paragraph. Please expand the discussion regarding the supposition that 2-butanone (MEK) and acetone are suspected laboratory contaminants. Please provide substantiation for the assumption that the leaching of organic compounds from Site 1 is/was a function of percolation rainfall. Also, PCBs can be mobilized in the presence of organic solvents (cosolvency) and through colloidal transport. Information presented on page 43 indicates that organic solvents (TCE, MEK, and Stoddard Solvent) were included in the "estimates of waste types disposed of at the landfill;" therefore, the mechanism for cosolvency should also be evaluated for leachate migration.

41. Section 1.3.7.3, page 71, para 2,3. It appears from these paragraphs that biodegradation would always be positive. But isn't it true that the resultant vinyl chloride from the reduction or degradation of PCE is actually more toxic than its original form? The argument that the active biodegradation of landfill contaminats in this case is positive needs to be validated.

42. Section 1.4. As with the site characterization (Section 1.3), no references or documentation as to whether or not data quality was assessed or considered during the risk assessment process is presented in this FS report.

43. Section 1.4.1.3, page 76, para 1. The final sentence, beginning with "Under the very conservative assumption . . ." needs to be better explained. An explanation should be provided as to why the evaluation of the data found that exposures to the chemicals at the landfills will not result in noncancer health impacts. The final sentences in the final paragraph on this page also require further explanation. It is not clear whether remediation is required or not. The report states that some potential carcinogenic substances were detected above the 10^{-6} range, EPA's point of departure. If no remediation is going to occur, this needs to be explained in detail.

44. Section 1.4.2, page 77, last paragraph. The third sentence reads, "Risks were not assessed for groundwater exposure pathways because pathways are assumed incomplete." Why are they assumed incomplete? This needs to be explained.

45. Section 1.4.2.1, page 78, first full paragraph. The report states that the groundwater at the NAS site is not a drinking water source due to high levels of TDS. Does a high TDS

level automatically mean that groundwater cannot be treated to achieve safe drinking levels? Further, the citation to EPA's Secondary drinking water standard, if it is to be provided, should be more specific, rather than 40 C.F.R. 140-149. (The secondary drinking standard requirements are set forth at Part 143). The citation to the proposed RCRA regulations concerning potable water should also be provided.

46. Section 1.5, page 80. To eliminate redundancy in identifying both the federal and state regulations, it is recommended that the California regulatory programs that have received federal authorization (i.e., hazardous waste, solid waste, safe drinking water, air pollution) be used in lieu of the federal statutes.

47. Section 1.5, page 80. The definitions of "to-be-considered" (TBC) advisories, guidelines, other non-promulgated policies are presented in Section 1.5. TBCs also include local regulations including SCVWD well development and destruction requirements. However, TBCs are not identified in the text, tables, or ARARs documentation in Appendix J. It is recommended that the TBCs documents be identified or state that no TBCs were found that pertain to this site.

48. Section 1.5, page 80, last paragraph. The word "fully" should be deleted from the second sentence. An ARAR is applicable if it directly addresses or regulates a hazardous substance. The inclusion of the word "fully" adds a requirement to the ARARs analysis that is not required to be met.

49. Section 1.5, page 82, first full paragraph. It is recommended that this paragraph, beginning with, "Several of these waivers . . ." be deleted. This paragraph implies that ARARs waivers will be sought and that they are applicable. This may not be the case. If a particular ARAR is to be waived, this discussion should be had at that time, not in the FS.

50. Table 7. The U.S. NPDWRs and California drinking water MCLs are relevant and appropriate regulations and should be included here in Table 7. While it can be argued that the TDS levels at Site 1 exceed 10,000 ppm and may not necessarily be a source of drinking water, note that Site 2 TDS levels are below 10,000 ppm and groundwater there could potentially serve as a drinking water source. Additionally, states have the option of classifying groundwater at any TDS levels as possible drinking water sources.

51. Table 7, page 1 of 7. This table states that the RCRA Subtitle C regulations are not relevant or appropriate. This needs to be more fully addressed. Some of the wastes at the landfills are potentially hazardous wastes (e.g., PCBs), making the regulations under Subtitle C relevant and appropriate.

52. Table 7, page 3 of 6. The discussion concerning the appropriateness of the Federal Water Quality Criteria appears to leave out any discussion of the potential affect to aquatic life due to the water quality at the site. This should be addressed as it is a consideration under 40 C.F.R. § 131.2. Discussion of effects on human health is

insufficient.

53. Table 8, page 1 of 3. A citation to 40 C.F.R. § 6.302 should be added to this table in the discussion of "floodplain." Additionally, this citation requires that all actions be evaluated to "avoid, to the extent possible, adverse effects associated with the development of the floodplain. Further, this provision requires that a floodplain/wetlands assessment be done if it is determined that actions may be taken in a floodplain. The statement in this table indicates that such a situation may exist. Lastly, Executive Order 11990 and 40 C.F.R. § 6.302 require that the responsible official "either avoid adverse impacts or minimize them if no practicable alternative to the action exists." This requirement is not currently set forth in the table as a requirement to be met during the evaluation.

54. Table 8, page 2 of 3. A citation to 40 C.F.R. § 6.302(d) should be inserted into the applicability portion of the table concerning the coastal zone location. The requirements of this provision need to be complied with.

55. Section 1.5.3, page 96, second full paragraph. The third sentence, beginning with "Available background . . ." is questionable. There has been no prior discussion in this report concerning what are "similar type of wastes" that would have been disposed of at a municipal landfill. To the contrary, it is more likely that the information known indicates that the landfills were operated in a manner more consistent with industrial landfills based on the disposal of PCBs, asbestos, used oils, jet fuel, and solvents. If the FS is to include such a statement, the phrase "similar types of waste" needs to be defined. It is most likely incorrect to analogize these landfills to municipal landfills.

56. Section 1.5.3, page 96, third full paragraph. Since California RCRA Subtitle C and D have received federal authorization and are at least as stringent as federal regulations, citations to federally authorized California regulations should be used in place of federal requirements. To reduce confusion, it is recommended that this rationale be used to supersede federal requirements to replace the federal/state discussion presented in this paragraph.

57. Section 1.5.3, page 96, fourth full paragraph. This paragraph references activities (alternatives) that generate waste streams and presents specific ARARs for waste streams. Since waste streams generated by the alternatives are not presented or discussed elsewhere in the document, it is not clear why this paragraph is necessary.

58. Table 9, page 1 of 10. In comments to the Requirement Descriptions, #4, there is an incomplete citation to an EPA document. This should be filled in or deleted.

59. Table 9, page 7 of 10, second row. Although federal air emission requirements are identified, local air pollution control rules and regulations are not presented. Since the local air pollution rules are presented in the State Implementation Plan (SIP) for EPA approval, they should be considered ARARs. It is recommended that the local air

pollution regulations for OU-1 be reviewed and addressed, and in particular, the Bay Area Air Quality Management District's Regulation 8, Rule 34.

60. Table 9, page 10 of 10, fourth row. Hazardous waste transportation is only applicable to off-site transport, and thus should not be defined as an ARAR. However, the Navy should identify in the text the specific alternative recommended for off-site transport and explain how off-site transport will be handled.

61. Table 9, page 10 of 10, fifth row. Worker health and safety requirements do not provide substantive requirements for cleanup and should not be defined as an ARAR. Additionally, the requirements are not environmental laws. However, compliance with worker health and safety requirements at CERCLA sites is required as addressed in the NCP.

62. Section 2.1, page 108, fourth full paragraph, first line. The text concludes that risk levels identified above the "point of departure" are considered "the level below which risk is considered negligible." The acceptable risk range in the NCP is 10^{-4} to 10^{-6}. The departure point is the initial risk level for risk management evaluation culminating in a site-specific risk level within a range acceptable to the NCP. This statement should be corrected after reviewing the Preamble to the Final NCP, 55 Fed. Reg. 8715 (March 8, 1990).

63. Section 2.1, page 109, second full paragraph. Although there may not appear at this time to be leachate migrating beyond the landfill boundaries (see comment from p. 34), consideration should given to future leachate migration when the site is surcharged with the cover material. Monitoring should be considered for a specified length of time after closure to fully understand the effect of closure on the sites.

64. Section 2.1, page 109, first full paragraph. Surrounding groundwater and leachate could migrate in the future, particularly if there is sufficient settlement to allow additional refuse and fill material to contact the leachate. Discussion should be provided pertaining to the potential for future migration of leachate, if none is found in the next few rounds of sampling.

65. Section 2.2, pages 112-115. Throughout the entire section discussing remedial options, no treatment remedies are discussed at all (e.g., collection of leachate, methane gas, etc.). There is no evidence that any treatment technologies of any kind were considered and then discarded (e.g., excavation of hot spots). This should be done. If no treatment is to be done at the site, then a rationale should be presented to illustrate that EPA considered it, and had a valid reason for rejecting it as a remedial option.

66. Section 4.0, page 129. Alternative capping designs should be considered which may be more effective and cost efficient. This would include the use of a Claymax or a HDPE cover material.

67. Section 4.2, page 135, second full paragraph. A single vent source for the passive gas collections system will concentrate the LFG emissions and create an exposure point source. This will be problematic should future land use provide for increased public access. It is recommended that this system be designed for future activation with the use of blowers and a treatment unit. The use of a strictly passive gas control system precludes potential future land use because of exposure to LFG contaminants. A better design would utilize a passive system that is designed for future activation with the addition of a blower and treatment system (typically GAC) or at a minimum a vent stack which minimizes the exposure pathway (see preceding comment).

68. Section 5.2, page 145, second full paragraph. The text in Section 5.2 - Compliance with ARARs - does not present details for how the ARARs are applied nor how they are met for Alternatives 2 and 3. For example, Northern Moffett Field is identified as susceptible to tidal flooding and must be in compliance with the Executive Order on Floodplain Management (Table 8, second row), but Section 5.2 does not identify the requirements nor present the precautions needed to be taken to comply with this ARAR. This is of particular concern since a vegetative cover could suffer significant damage in a flood. It is suggested that more details be provided on how the ARARs are met for Alternatives 2 and 3.

69. Section 6.1, page 152, para 1. The third sentence, beginning with "For landfill refuse, . . .", is confusing and should be deleted. The issue is whether the contaminants are present in concentrations above actions levels. It would seem they either are or they are not. This sentence should be modified accordingly.

70. Section 6.2. Many statements in this section may need to be modified when ecological data and additional rounds of sampling are analyzed in the coming months. Regarding risks to burrowing animals, the remedy should consider these risks at the FS/ROD stage. It would be a very difficult administrative change to modify the remedy in the remedial design phase. It might require an amendment to the ROD, not an easy task.

71. Section 6.2, page 152, para 3. The effect of potential settlement of the landfill due to the increase in surcharge should be estimated. In particular, the effect of allowing additional fill material to come into contact with leachate should be determined. This is of particular concern with Site 1 where on the eastern side of the landfill there is evidence of significant contamination present in perched leachate (see comment from p.20).

72. Section 6.2, page 153, first full paragraph. The HELP Model to estimate leachate generation should also be performed for Alternative 1 to provide a basis of comparison with Alternatives 2 and 3.

73. Section 6.2, page 153, 154, overlapping sentence. The statement that EPA does not recommend multi-layer caps for landfills that have minimal hazardous substances may be true. But the dicrepancy that exists between the anecdotal evidence and the sampled

data regarding the contents of these landfills needs to be resolved before the landfill can be properly classified as a municipal landfill.

74. Appendix G. The section on data evaluation (G.3.1) states that data quality objectives (DQOs) and quality assurance/quality control measurements for the groundwater data "meet or exceed EPA Contract Laboratory Program (CLP) QA/QC criteria". CLP QA/QC criteria, as outlined in the CLP contract Statements of Work (SOW), are contractual laboratory performance criteria and are linked to laboratory payment, not to data usability. Data validation, performed using the National Functional Guidelines for Organic Data Review or Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analysis, can be used to assess data quality. The groundwater data tables presented in Appendix C of the report contain data qualifier flags, indicating that some form of data review/validation was performed. Many of the data points are flagged with the "J" (estimated) qualifier. While there are some cases where "J" flagged data are usable for risk assessment purposes, the report does not indicate whether or not steps were taken to determine whether or not qualified data points are usable.

75. Appendix J. This appendix presents a verbatim documentation of California landfill action-specific regulations and the relevance and appropriateness of each regulatory section. However, Appendix J does not present other location- or action-specific ARARs nor their relationship to the proposed alternatives. For example, Table 8 identifies the applicability of the California Coastal Act of 1976 (CCA), but Appendix J does not discuss compliance with the CCA or the need for a waiver. Appendix J should provide a comprehensive regulatory review, not only Title 14 and 23 of the CCR (landfill requirements). The reviewer should also be given sufficient detailed information on the other regulatory requirements necessary in determining if the proposed alternatives will meet the ARARs or if a waiver is necessary. In its present form, Appendix J is too narrowly defined and limits the evaluation of the ARARs. It is recommended that the documentation of ARARs follow Section 1.5 of *CERCLA Compliance with Other Laws Manual*, Vol. I, OSWER Dir.9234.1-01 and Appendix E of *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA*, OSWER Dir. 9355.3-01.1