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Ser 1811GM/L2422  
29 SEP 1992

Dr. Brian L. Jennison  
✓ Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, CA 94109

Subj: RESPONSES TO COMMENTS ON AIR QUALITY ANALYSIS REPORT FOR  
RI/FS AT NAS ALAMEDA

Dear Dr. Jennison:

We are providing as enclosure (1), responses to the Bay Area Air Quality Management District and the Department of Toxic Substances Control's comments on the draft of the Air Quality Analysis for the RI/FS (Phases 2B and 3) dated 26 May 1992.

If you have any questions regarding our responses to your comments, please contact Mr. Gary J. Munekawa, Code 1811GM, (415) 244-2524.

Sincerely,

Original signed by:

LOUISE T. LEW  
Head, Installation Restoration Section

Encl: (1) Responses to Comments on Air Quality Analysis Report

Copy to:

California Regional Water Quality Control Board (Attn: Janette Baxter)  
California Department of Fish and Game (Attn: Mike Rugg)  
✓ National Oceanic and Atmospheric Administration (Attn: Denise Klimas)  
NAS Alameda (Attn: Randy Cate)  
Planning Research Corporation (Attn: Duane Balch)

Blind copy to:

1811, 1811GM, 1811GK, Admin Record (3 copies)  
WRITER; Gary J. Munekawa/1811GM/x2524  
TYPIST: Martha Marshall/25 Sep 92/L2422  
FILE: Alameda/NAS  
Chron, Blue, Pink, Green

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**RESPONSES TO COMMENTS ON  
AIR QUALITY ANALYSIS REPORT OF 26 MAY 1992  
FOR THE RI/FS AT  
NAS ALAMEDA, CALIFORNIA**

**I. SPECIFIC COMMENTS FROM DTSC (MS. VIRGINIA LASKY) DATED 11 AUG 92**

**Comment No. 1.** Climate data - Section 3.0: Climate, presents the rainfall for eastern Alameda County. The Alameda NAS is in western Alameda County. Although this is a minor point, the rainfall should be stated for the correct portion of the county.

**RESPONSE:** NAS Alameda averages 18 inches rainfall annually (Air Traffic Control NAS Alameda, 1992). This correction will be made to the final report.

**Comment No. 2.** Sampler intake height - Section 4.0: Field Activities, indicates that the air intake to the sampling media was about three feet above the surface where the sampling pump was placed. EPA ambient air sampler siting criteria (40 CFR Part 58, Appendix E) recommends that the air intake be a minimum of two meters above the ground.

**RESPONSE:** The report stated a conservative estimate of approximately 3 feet. In reality, the samples were collected in a range of 3 to 4.5 feet above the ground surface. In most cases samples were collected closer to 4 feet above the ground surface. The air sampling equipment case with mast extended (30 inches) was placed on a box (approximately 16 inches high), and the box situated as high as possible, but in a location where it would not be disturbed. California Department of Health representatives were on site during sampling and concurred with this sampling procedures. The final report will reflect this detail.

**Comment No. 3** Target compound list - according to December 1988 Air sampling Plan, ANAS will monitor volatiles, semivolatiles and metals at some of the sites including the Fire Training Area. Please provide rationale why only the volatiles and metals were monitored.

**RESPONSE:** The December 1988 Air Sampling Plan prepared by the Navy's previous contractor, Canonie, indicated that semivolatile compounds and polychlorinated biphenyls (PCBs) would be monitored at some sites; however, upon further review it was decided to modify the air sampling field program, to provide a rudimentary "snap shot" of air quality at the Phase 2B and 3 sites based on volatiles, metals, and nuisance dust. Thus, sampling for and analysis of semivolatiles and PCBs was not conducted during Phase 2B air sampling activities because these heavier compounds were not expected to be readily found in the atmosphere. The Navy's current contractor, PRC, sampled for volatiles, metals, and nuisance dust but not for particulates (PM10). The data presented as particulate data in parts per million (ppm), should have been presented as nuisance dust measurements in micrograms per cubic meter (ug/m<sup>3</sup>). The methods chosen to sample volatiles, metals, and nuisance dust were identical to the ones used by Canonie (Phase 2A Air Sampling Results RI/FS NAS Alameda, November, 1990). This discussion will be incorporated into the text of the final report.

**Comment No. 4.** Sampling duration and flows - In Section 4.0, the sampling durations are stated as having been about 120 minutes with flow rated of about 0.19 liters/minute for VOCs and 1.5 liters per minute for metals and particulates. These brief sampling durations and low flows result in small air sampling volumes and an increased

likelihood of results below the reporting limits. An example of this is the lack of detected concentrations of particulates as shown in Table 5-5.

**RESPONSE:** The sampling flow rates and durations were comparable with the previous sampling conducted by the Navy's previous contractor, Canonie. The Phases 2B and 3 sites were sampled for nuisance dust rather than particulates. Table 5-5 will be modified to reflect this difference.

**Comment No. 5.** Reporting of metals and particulates data - Table 5-2 lists reporting limits of metals and particulates in concentrations of parts per billion (ppb). Concentrations of metals and particulates can only be listed in micrograms/cubic meter (weight/volume). Metals and particulate concentration may not be converted to ppb (volume). The flow rate calculations of Appendix B only apply to gaseous compounds.

**RESPONSE:** The sampling for metals concentration should be expressed as ug/m<sup>3</sup> and not ppb. Also, the data presented as particulate data in ppb, should have been presented as nuisance dust measurements in ug/m<sup>3</sup> only. The table will be modified to reflect this difference.

**Comment No. 6.** Preliminary risk assessment - Section 6.0 Conclusions, state that the air concentrations may be used to conduct a preliminary risk assessment. This data set may be too limited to be suitable for use as input to a preliminary risk assessment due to the following reasons: a) there is no description of whether the samplers were downwind of the potential emission points during the sampling periods; and b) the brief sampling periods are probably not sufficient to represent annual average air concentrations for estimating exposure.

**RESPONSE:** The original air sampling plan did not address sampling downwind and the sampling flow rates and durations were consistent and comparable with the Canonie activities conducted at the Phase 2A sites. The Phase 2B and 3 air sampling activities were intended for use as a screening analysis of the air quality at these sites. It is felt that these data provided useful background information for the initiation of a preliminary risk assessment. However, this project was not intended to provide enough data alone for conducting a risk assessment or to estimate exposure.

**Comment No. 7.** Provide the schedule for implementing all comments.

**RESPONSE:** Developing an implementation schedule for future field work would be premature at this time without consultation between the Navy and the regulatory agencies. This interface will be required to establish exactly what is expected by the agencies to identify and fill any air quality data gaps, and to establish how the data collected to date, and any future data results, will be used.

## II. SPECIFIC COMMENTS FROM BAAQMD (MR. BRIAN L JENNISON) DATED 17 JULY 1992

**Comment No. 1.** Table 5-2. Average sampling flow rate of 1.5 liters per minute seems too low, and average sampling time of two hours seems too short for proper sampling of metals and particulates. It is District practice to sample at higher flow rates and for four to eight hours duration to get a more representative sample.

**RESPONSE:** The sampling flow rates and durations were comparable with the previous sampling conducted by the Navy's previous contractor, Canonic. Due to possible contaminant breakthrough in the carbon sieve tubes using a higher flowrate, the analytical subcontractor (Curtis and Tompkins, Ltd.) agreed that these flowrates would be appropriate. The duration was based on the total volume of air required for analyses. As stated in Response to DTSC Comment No. 3, Phase 2B and 3 sites were sampled for nuisance dust rather than particulates.

**Comment No. 2.** Table 5-2. It is unclear why reporting limits for metals is expressed in parts per billion (ppb). Typically, particulates and metals in air are expressed in ug/m<sup>3</sup> (weight per volume). Parts per billion is a volume per volume expression, appropriate for a water or soil sample perhaps, but not for solids (metals and particulates) in air.

**RESPONSE:** The sampling for metals concentration should be expressed as ug/m<sup>3</sup> and not ppb. Also, the data presented as particulate data in ppb, should have been presented as nuisance dust measurements in ug/m<sup>3</sup> only. The table will be modified to reflect this difference.

**Comment No. 3.** Table 5-2. The reporting limit of 20,000 ug for particulates is very high. The Federal ambient air standard for PM<sub>10</sub> is 150ug/m<sup>3</sup>, and District measurements are well below this on a regular basis.

**RESPONSE:** PRC sampled for volatiles, metals, and nuisance dust but not particulates (PM<sub>10</sub>). See Response to DTSC Comment No. 3.

**Comment No. 4.** As a follow-up to point No. 3, it is unclear how 4154.6 was derived as the particulate concentration.

**RESPONSE:** The sampling for metals concentration should be expressed as ug/m<sup>3</sup> and not ppb. Also, the data presented as particulate data in ppb, should have been presented as nuisance dust measurements in ug/m<sup>3</sup> only. The table will be modified to reflect this difference.

**Comment No. 5.** Table 5-5. Staff do not understand the values presented for particulates.

**RESPONSE:** The data presented as particulate data in ppb, should have been presented as nuisance dust measurements in ug/m<sup>3</sup> only. The table will be modified to reflect this difference.

**Comment No. 6.** Appendix C, Table 2. Sample M10; 3447.15 ug/m<sup>3</sup> lead is a very high value for an ambient air sample. The Federal lead standard is 1.5 ug/m<sup>3</sup> as a 24-hour average.

**RESPONSE:** This value is quite high, and may be anomalous due to an, as yet unidentified source or one-time field activity that occurred during the sampling event. It should be noted, however, that the lead analytical results are not comparable to the federal lead standard of 1.5ug/m<sup>3</sup>, which is averaged over a calendar quarter. The lead concentration at Alameda was averaged over a 2-hour period.