

APPENDIX A

RESPONSES TO EPA'S 16 JUNE 2006 COMMENTS

ON SUPPLEMENTAL RI/FS WORKPLAN

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GENERAL COMMENTS – SUPPLEMENTAL RI/FS FOR VAPOR INTRUSION

Comment 1: EPA has an overriding concern that the Supplemental RI/FS VI Work Plan is extremely general. The Work Plan only generally describes data evaluation and the alternatives that will be explored during the Supplemental FS process. Thus it is difficult for EPA to determine whether the draft Supplemental RI and FS documents will include the necessary information upon which EPA can evaluate the remedial alternatives using the National Contingency Plan's (NCP) nine criteria and select a preferred alternative. To ensure that EPA's concerns are discussed sufficiently early in the Supplemental RI/FS process, EPA requests that the MEW Companies conduct focused technical meetings with EPA to discuss ongoing development and screening of the remedial alternatives.

Response: A plan to have focused technical meetings with EPA was presented to EPA in a March 2006 meeting. Since then, the MEW Companies, NASA, and Navy have conducted a number of such meetings with EPA to discuss the supplemental RI/FS process. The MEW Companies plans to continue having these meetings. Please also refer to the response to General Comment 10 below.

Comment 2: Scope of Supplemental Remedial Investigation Report: As EPA has previously requested, EPA expects the Supplemental RI report to be a streamlined summary of the air investigations and summary of existing outdoor and indoor air data collected to date by the MEW Companies, Navy, NASA, EPA, BAAQMD, and other parties. EPA is requiring the following information in the Supplemental RI Report:

- (a) Figures of all the commercial buildings sampled and the sample locations.
- (b) Tables summarizing all the trichloroethene (TCE) air results by building, location, date, and sample type.
- (c) Figures with posted TCE air data for the MEW commercial buildings south of Highway 101 and where available and appropriate for the buildings north of 101.
- (d) A comprehensive evaluation of each of the buildings tested to date.
- (e) Separate figures for each tested building including all available TCE indoor air, outdoor air and pathway results and any mitigation activities conducted (e.g., HVAC adjustments, sealing conduits, air purifiers, etc.). Figures created by the MEW Companies and NASA for select buildings in the past are good formats for presenting this information; specifically, each chart should show TCE concentrations in samples (Y-axis) as a function

of time (X-axis). These figures should include clear identifiers (arrows or tick-marks) for the implementation of any building-specific mitigation measures.

Response: All of the requested information is included in the Supplemental RI report. The information requested in subparagraph (a) is included in Figures 4-3 through 4-46. The information requested in subparagraph (b) is included in Tables 4-5 through 4-8, 4-12 through 4-17, and in Appendix A. The information requested in subparagraph (c), the building-by-building evaluation, is included in Chapter 4, and further building data analyses and findings are included in Chapter 5. The information requested in subparagraph (d) is included in Figures 4-47 to 4-86 and Figures 4-94 to 4-111.

Comment 3: EPA Assessment of Risks: The Work Plan proposes that the MEW Companies prepare a detailed risk assessment to evaluate the potential health risks of current and future building occupants from the vapor intrusion pathway. As EPA explained at our March 21, 2006 and May 30, 2006 meetings, EPA assesses the risks and does not delegate this task. EPA will provide EPA's assessment of the risks that will be incorporated into the Supplemental RI/FS documents. EPA has not directed the MEW Companies to prepare such an assessment as part of the Supplemental RI/FS. A baseline risk assessment has previously been prepared for the MEW Study Area satisfying Superfund requirements. Furthermore, EPA has already established preliminary remediation goals for the contaminants of concern in indoor air and established interim action levels for TCE in indoor air at this Site. Accordingly, a detailed vapor intrusion risk assessment is not necessary to assess whether remedial action is warranted. Finally, even if the MEW Companies are interested in preparing such a risk assessment, there is not a sufficiently robust indoor air data set suitable for risk assessment purposes for the buildings that have been sampled to date (except for a few of the NASA buildings).

Response: The inclusion of a risk assessment in the RI has been discussed with EPA in meetings subsequent to these comments. Per EPA's request, the Supplemental RI report does not include a risk assessment. While the MEW companies understand that the EPA has established an interim action level, it is an important function of the RI to describe and communicate the potential risks associated with indoor vapors and to be clear on how the interim action level was derived and how it is intended to be used. Therefore, as agreed during meetings with the EPA, the RI includes a description of the basis for the interim action level and an evaluation of potential exposures.

Comment 4: Presentation of Indoor Testing Results: In the Supplemental RI Report, test results from individual buildings should not be averaged over the entire building (as in Section 5.3.7 in the Work Plan). In general, separate results should be presented for each location within the building. Due to the small number of data points available for most locations tested within a building, EPA anticipates that there will not be sufficient data to average location-specific values. For there to be enough information to average a location-specific value, there must be sufficient data to provide a conservative estimate of the average concentration (i.e., the 95 percent UCL (upper confidence level) on the arithmetic mean). Because there are not sufficient data to estimate a 95 percent UCL (with the exception of selected NASA buildings), separate results should be presented for each location within a building and the maximum detected sample concentration or range of concentrations should be presented and discussed. Additionally, averaged location-specific values should not be compared to the interim action level criteria unless there are sufficient data to provide a conservative estimate of the average concentration.

Response: Chapter 4 of the RI report includes a discussion of the results of air samples in each sampled building. In this discussion, the number of samples, number of detects, and the minimum and maximum concentrations are provided. Tables 4-14 through 4-17 compare the maximum concentrations in sampled

commercial and residential buildings to EPA long-term goals and to background levels. Average values are not used for comparison to screening levels.

However, for many buildings there is sufficient information to calculate a mean and an upper 95 % upper confidence limit (UCL) on the mean and that a representative long-term average exposure concentrations should be used for comparison to the interim action levels, which are based on the assumption of long-term continuous exposure conditions. In Chapter 5, an analysis is conducted that calculates the average (arithmetic mean) concentration of TCE detected in each building. This analysis is useful for identifying buildings with relatively more or less potential for vapor intrusion.

EPA has requested that a UCLs not be presented in the RI and therefore we have not included this statistical value in our presentation of data. However, in many buildings, there is sufficient data to support derivation of a UCL concentration and use of the UCL to characterize indoor air quality. We continue to believe that the UCL is a better comparison point to the interim action level, because both values are intended to represent long-term reasonable maximum exposures. Support for use of the UCL is provided in EPA's guidance, the ProUCL Version 3.0 User's Guide (April 2004, EPA/600/R04/079), which clearly states that the 95% UCL is more appropriate as an exposure point concentration (EPC) than the maximum value: "...since the EPC term represents the average exposure contracted by an individual over an exposure area during a long period of time; therefore, the EPC term should be estimated by using an average value (such as an appropriate 95% UCL of the mean) and not by the maximum observed concentration. With the availability of so many UCL computation methods, the developers of ProUCL, Version 3.0 do not feel any need to use the maximum observed value as an estimate of the EPC term" (page 55). The guide also states that the use of the maximum value ignores most (except for the maximum value) of the information contained in a data set, therefore it is not desirable to use the maximum observed value as an estimate of the EPC term representing average exposure by an individual.

At the MEW Site, TCE primary air sampling results (i.e, excluding pathway samples) tend to be consistent in buildings when ventilation conditions are parallel, and the UCL of samples of locations within each building could provide a representative average exposure of an individual through each building. The RI did not find significant differences in measured TCE air concentrations between different floors. In addition, the ProUCL software is able to calculate a statistically valid UCL values for sample sizes of four and greater. Therefore nearly all buildings have enough samples to calculate a representative exposure concentration.

Finally, since the TCE interim action level and EPA's PRGs represent long-term acceptable health based concentrations, final decisions regarding actions taken in buildings should consider long-term exposure conditions, best be represented by UCLs, rather than just maximum values.

Comment 5: Inadequate Responses to EPA March 23, 2006 Letter: EPA found that the May 22, 2006 letter, prepared on behalf of Raytheon and Schlumberger Technology, in response to EPA's ventilation criteria comment letter was inadequately responsive to EPA's comments. Specifically, EPA's March 23, 2006 letter requested information substantiating the MEW Companies' proposed use of the ventilation criteria that had been proposed but not fully supported for over a year. EPA required this information from the MEW Companies in order to begin to assess and guide the development of ventilation criteria for the Supplemental RI/FS process. Instead, the May 22, 2006 letter defers provision of that information to the Draft Supplemental RI report due in late July and "as appropriate when screening and developing remedial action alternatives." (May 22, 2006 letter, page 6). Delaying provision of this information until the Draft Supplemental RI report risks that there will be significant data gaps that will not be identified until late in the process. The use of ventilation criteria as part of a remedy to address the vapor intrusion

pathway is a potentially complex undertaking. To ensure that the Draft Supplemental RI report includes the information necessary for EPA to evaluate the ventilation criteria, EPA requests a meeting to discuss the substance of EPA's comments and what information EPA expects will be provided in the Draft Supplemental RI and FS documents.

Response: The MEW Companies, NASA, and Navy have met with EPA to discuss this EPA comment and the content of the RI/FS documents. Information on the ventilation systems in sampled buildings, and in unsampled buildings where the MEW Companies and EPA conducted walkthroughs, has been provided to EPA, and is included in the Supplemental RI report. EPA has recently retained an HVAC specialist to evaluate the information provided to EPA, and the MEW Companies have arranged for the specialist to inspect MEW Site buildings, as requested by EPA, to become familiar with the operation of the HVAC systems in these buildings.

To ensure that potential mitigation measures, including ventilation, are evaluated and implemented properly, the MEW Companies have formed an FS subgroup to evaluate how ventilation can be used as the remedy and an IC/management subgroup to assess the mechanisms by which ventilation can best be implemented. These two subgroups will meet with EPA and others, as necessary, to ensure proper evaluation and implementation of recommended mitigation measures.

Comment 6: Ventilation Criteria and FS Alternatives: MEW's May 22, 2006 letter acknowledges that the MEW Companies will be proposing to use ventilation criteria as a proxy for sampling in certain buildings. The MEW Companies assert that meeting the criteria will prevent occupants' exposure to unacceptable levels of volatile organic compounds (VOCs) from subsurface vapor intrusion. As discussed in EPA's March 23, 2006 letter regarding the MEW ventilation criteria, ventilation resulting in adequate positive pressure of a building may be a key component in preventing unacceptable levels of VOCs into buildings through the subsurface vapor intrusion pathway. However, there has still not been sufficient evidence that the assessment of the proposed MEW ventilation criteria alone (i.e., 20 cubic feet per minute per person for office space and at assumed maximum occupancy of a building of 7 persons per 1000 square feet) is sufficient or appropriate to conclude that a building will not be impacted at levels of concern. The MEW proposal has not included an explanation of how the maximum occupancy ventilation rate will be maintained over time and how operating in this mode compares to minimum standard operating conditions or "energy efficient" operating conditions. The Supplemental FS report must provide sufficient evidence to support use of the proposed ventilation criteria alone and should evaluate other appropriate measures in the FS alternatives analysis. As stated above, to ensure that the Draft Supplemental RI report includes the information necessary for EPA to evaluate the ventilation criteria, a meeting is needed to discuss EPA's comments on the ventilation criteria. Confirmation sampling will be required to ensure that any remedial alternative applied is effective.

Response: The Draft Supplemental RI report includes an evaluation of several voluntary mitigation measures implemented at the Site, including ventilation, sealing of conduits, use of air purifiers, as well as other precautionary measures implemented in newly constructed buildings, such as pressurized subslab ventilation. The FS report will evaluate these and other mitigation measures to address their potential employment as vapor intrusion remedies. Meetings with EPA will be held to provide EPA with updates on their evaluations. Focused FS meeting will be held with EPA, and discussions with EPA are continuing on which ventilation criteria are supportable.

Part of the support is based on the MEW and NASA confirmation samples collected after implementation of mitigation measures. The results of these confirmation samples are discussed in Chapter 4 of the Supplemental RI report and its associated tables. In addition to the building-by-building evaluation

provided in Chapter 4, Chapter 5 includes a section evaluating these mitigation measures based on the confirmation samples.

It is important to note that for most of the buildings that operate a mechanical ventilation system and that have had no mitigation measures completed (or samples were collected before measures were completed), TCE was not detected above the interim action level in breathing zone samples when ventilation systems were running properly. None of the samples collected while ventilation systems were running in buildings with slab-on-grade construction type were above the interim action level. In these buildings (of all construction types), the samples collected are considered representative of typical occupied conditions and should not necessarily require additional confirmatory sampling.

Comment 7: Evaluation of Other Buildings Not Sampled: As explained in EPA's March 23, 2006 letter, EPA has determined that sufficient investigative work has been conducted to evaluate potential remedial alternatives for the vapor intrusion pathway at the MEW Site thus allowing the Site to proceed to the Supplemental FS stage. Specifically, an adequate range of building types have been tested resulting in a range of identifiable pathways (e.g. utility vaults, sumps, elevator shafts, conduits, basements) and a range of interim mitigation measures have been implemented at new and existing buildings (e.g. passive and active subslab ventilation systems, increased ventilation, air purifiers, vapor barriers and sealing of conduits). As EPA has made clear throughout this process, although there is enough information to evaluate a range of potential remedial alternatives to address the vapor intrusion pathway at buildings already sampled, sufficient information has not been gathered regarding those individual buildings that have not yet been sampled to determine the applicability of each remedial option to those individual buildings. This evaluation of buildings that have not been sampled may require indoor air sampling.

Response: The MEW Companies agree that there is enough information to evaluate potential remedies at the Site in an FS. Approximately 2,800 air samples have been collected at the Site during the RI phase, and several voluntary remedial and precautionary measures have been implemented. Chapter 5 of the RI provides data analyses of building commonalities and an evaluation of implemented mitigation measures that will be used as a guide to the FS. Chapter 5 also provides an analysis of "baseline" and "non-baseline" buildings, where baseline buildings are those sampled without or before implementing mitigation measures.

We anticipate that un-sampled buildings can be profiled according to the building construction and operational variables identified for the sampled buildings. Based on this profiling, buildings at risk for vapor intrusion can be identified. Table 5-10 of the RI provides additional construction and operational variables collected in the un-sampled buildings during the walkthroughs.

EPA has requested additional information on exchange rates, current building occupancy, room use, pressure differential data, and air testing and balancing information from buildings. This level of information was not collected from the buildings during the RI work, except for the following:

- 555 Ellis Street: The building was sampled recently, and the air exchange rate was obtained from direct measurements from each of the package units on the roof. The air exchange rate on the day of sampling was 1.3 hr^{-1} .
- 355/365 E. Middlefield Road: After refurbishing the ventilation system, Intel calculated the air exchange rate to be 1.2 hr^{-1} and measured a 0.02 inch of water positive pressure differential in the building.

- 425 National Avenue: Vishay/SUMCO used a tracer test to estimate an air exchange rate of 0.033 hr⁻¹ in this unoccupied, unfinished, and closed-up building.
- NASA Building 15: NASA conducted an eight-week sampling test in which the makeup air in the building was decreased from 100% to 30% in 10% increments. After each increment, NASA sampled the building in an attempt to arrive at a correlation between indoor air concentrations and percent makeup air. Even using this rigorous approach, NASA could not establish a correlation between the percent makeup air and indoor air concentrations. However, NASA found that increasing the makeup air decreased TCE concentrations in the building to below the interim action level.

To address EPA's data needs, the MEW Companies recently facilitated Site visits with EPA's HVAC expert to a number of buildings at the Site to collect information on various ventilation systems and their relationship to building parameters. Included in this visit were the buildings on 355/365 E. Middlefield Road, 350-380 Ellis Street, 501 Ellis Street, and 644 National Avenue. These buildings provide a spectrum of ventilation systems: Basement exhaust systems, rooftop package units, and state-of-the-art computerized systems.

Given the additional data acquired from these sites visits and the information provided in the RI, the MEW Companies and EPA continue to have focused discussion on ventilation systems and additional data needs.

EPA has requested additional information regarding city, county and state ventilation codes, and how ventilation, when used as a remedy, can conform to these codes. The MEW Companies agree that ventilation should comply with application codes, and will share with EPA during the FS process the research on applicable codes in the focused FS meetings to ensure that ventilation, when used as a remedy, does not contradict applicable codes.

Comment 8: Monitoring and Confirmation Sampling: The MEW May 22, 2006 response letter and the Work Plan do not specifically provide for development of (1) criteria for and collection of baseline and follow-up data to help determine whether vapor intrusion at unacceptable levels is occurring into occupied buildings; and (2) a regimen of periodic monitoring to ensure that the occupants continue to be protected from unacceptable levels of Site contaminants from the vapor intrusion pathway. Both of these must be addressed in the discussion of alternatives in the Supplemental FS Report. In addition, alternatives evaluated in the Supplemental FS must provide for confirmation sampling to ensure that meeting ventilation criteria or other remedial measure criteria is in fact being protective. Regardless of the remedial measures taken, EPA will require the collection of confirmatory samples to verify that the response action or remedy is effective in meeting the cleanup levels.

Response: The MEW Companies agree that when mitigation measures are implemented, confirmation samples should be collected to evaluate the effectiveness of the measures. The MEW Companies and NASA have collected a number of confirmation samples after each mitigation measure was implemented. The Draft Supplemental RI Report discusses the results of these confirmation samples in detail. Please refer to Tables 4-5 through 4-8, 4-12, and 4-13 where confirmation samples are segregated from baseline samples. Future confirmation sampling plans will depend on the selected remedy, and will be addressed in the FS. We expect that the verification aspects of remedial alternatives will be discussed with the EPA during development of the FS.

Comment 9: Institutional Controls (ICs): In order to ensure the effectiveness of many remedial options, both engineering and institutional controls (ICs) must be employed. ICs can themselves act to prevent exposure to contaminants or concern or they can ensure that engineered remedies are effective to prevent exposure to unacceptable levels. The Supplemental RI/FS VI Work Plan includes minimal reference to development of ICs for the proposed remedial alternatives. All proposed alternatives in the Supplemental FS report must describe how the alternative will be effectively implemented, monitored, and enforced; accordingly, any ICs that will be required to implement any remedial alternatives must be discussed in the Supplemental FS. ICs must be considered as part of each alternative, including the cost of implementing the ICs for various alternatives and the involvement of any state or local agencies in implementation of ICs. EPA requests focused meetings with the MEW Companies and appropriate parties to discuss the role and scope of ICs that may be necessary for the proposed remedial alternatives.

Response: The MEW Companies have formed a subgroup that will address ICs and remedy management. ICs will be considered in the FS as part of alternative evaluations. EPA has been informed about this subgroup and its participating representatives. A meeting of the subgroups with EPA will be scheduled to occur in August or early September.

Comment 10: Schedule and Meetings: EPA conditionally approves the Work Plan schedule for submittal of the Draft and Final Supplemental RI and FS Reports. As discussed during our May 30, 2006 meeting, EPA is concerned about the ability of the MEW Companies to adequately address EPA's comments on the Draft Supplemental RI and FS documents and meet the Final Supplemental RI and FS report deliverable dates proposed in the Work Plan. To help streamline the RI/FS document preparation and review process, the MEW Companies have agreed to have focused workgroup meetings with EPA to discuss critical issues and seek resolution prior to the MEW Companies submittal of the draft documents. EPA requests that at a minimum, focused work group meetings be scheduled well in advance of submittal of the draft documents to discuss the progress on the RI report, preliminary evaluation of the data, and EPA's comments on the Work Plan and ventilation criteria. Additional meetings to discuss development and screening of remedial alternatives, evaluation of institutional controls as part of the remedial alternatives, and detailed progress updates on the draft Supplemental FS report should also be added to the schedule to streamline the process.

Response: The Companies formed three focused work subgroups to address the components of the supplemental RI/FS: RI Subgroup, FS Subgroup, and IC/Remedy Management Subgroup. Each subgroup includes participants from the MEW Companies and NASA. The Navy was invited to participate, but declined. The names and contact information of the participants in each subgroup have been provided to EPA, and the RI Subgroup has already had meetings with EPA to discuss the Supplemental RI. The FS Subgroup met with EPA on 10 August 2006.

Each subgroup contains representatives with expertise focused on the mission of that subgroup; as such, different representatives have been assigned to the subgroups based on their area of expertise. The MEW Companies understand that the same EPA personnel will participate in each of the subgroups.

Comment 11: Delink Site-wide FS Schedule: Throughout the Work Plan, there is an assumption that there will be a Site-wide FS to examine the Site's ongoing groundwater remedy (pages 18 30, 31, and 42). As we discussed at our May 30, 2006 meeting, EPA will be working with the MEW Companies, Navy, and NASA to look at various elements of the Site's groundwater remedy and that process may culminate in a Site-wide FS. However, EPA has already determined that the vapor intrusion pathway must be addressed to ensure that the Site remedy is protective as long as the groundwater contamination levels may impact indoor air quality. Thus, the Supplemental RI/FS for the vapor intrusion pathway is not

dependent upon the examination of the groundwater remedy. Additionally, because there is not a remedy addressing the vapor intrusion pathway currently, EPA requires that the vapor intrusion pathway be addressed immediately, whereas examination of the groundwater remedy is likely to take longer. Thus, any references linking a future Site-wide groundwater FS should be delinked from the schedule for the Supplemental RI/FS vapor intrusion activities and reports.

Response: As previously conveyed to EPA, the MEW Companies plan to submit to EPA a Site-wide FS to address the groundwater, but the schedule of the Supplemental RI/FS for vapor intrusion will not be linked to the Site-wide groundwater FS.

Comment 12: Supplemental Feasibility Study not Correction Action Plan (CAP): The Work Plan makes reference to “corrective actions” and the development of a “corrective action plan” or CAP (pages 30, 39, 41, and 42). A CAP is a Resource Conservation Recovery Act (RCRA) action conducted as part of a RCRA permitting process, and is not the appropriate format for this Superfund process. Although at some CERCLA sites there are concurrent RCRA actions requiring CAPs, this action is not one of those scenarios. Because the vapor intrusion pathway was not addressed in the 1989 MEW Record of Decision (ROD), the Supplemental FS must consider various remedial alternatives to address the vapor intrusion pathway. The Supplemental RI/FS reports will form the basis for EPA’s Proposed Plan and EPA’s remedy decision to be made in the ROD Amendment. Thus, the MEW Companies and U.S. Navy are to submit a Supplemental FS, not a CAP, and must follow appropriate FS guidance.

Response: As previously conveyed to EPA, the FS Report will not include a corrective action plan.

Comment 13: RI/FS Team Organization Chart: The Work Plan did not include a management plan regarding effective communications, information management and exchange, quality assurance and quality control systems and a detailed RI/FS team organization chart describing the responsibilities and lines of authority. EPA requests this information along with the RI/FS team and subgroup participants’ responsibilities and contact information.

Response: The roles and responsibilities of each team that will be involved in the preparation of the supplemental RI/FS are described below:

Lead Agency: EPA is the lead agency that will oversee the supplemental RI/FS. The EPA project manager is Ms. Alana Lee. Ms. Lee will coordinate with other agencies, the PRPs, the contractor and internal EPA staff. Ms. Lee will review submittals that are part of the Supplemental RI/FS and provide comments as necessary.

Potential Responsible Parties: The Potential Responsible Parties that are participating in this supplemental RI/FS are: Fairchild Semiconductor Corporation; Schlumberger Technology Corporation; NEC Electronics, Inc.; SMI Holding LLC; Sumitomo Mitsubishi Silicon Corporation (formerly Siltec Corporation); Vishay General Semiconductor, Inc. (formerly General Instrument Corporation), Intel Corporation, Raytheon Company, and NASA. The Navy has declined to participate.

Ms. Jane Edgar from Schlumberger is the PRP coordinator. She will be responsible for overseeing the supplemental RI/FS process, coordinating the project team, corresponding with EPA and other regulatory agencies, and reviewing the project status to verify proper progress, consistent with established schedules, and to verify that the responsibilities of the project managers are fulfilled. The coordinators for the Navy and NASA are Mr. Richard Weissenborn and Ms. Sandy Olliges, respectively.

Project Director: The Project Director for this supplemental RI/FS is Mr. Elie Haddad of Locus Technologies. Mr. Haddad is the person responsible for supplying support to the project in form of personnel, equipment and business management. Mr. Haddad will coordinate the RI/FS tasks, and will provide additional coordination with EPA, the PRP coordinator and other PRPs. Mr. Haddad will also coordinate with the RI/FS subgroups, and will provide cost and schedule control. He will identify and communicate potential problems that may arise in the process. Mr. Haddad will also coordinate with the QA/QC personnel to ensure that work is performed accurately.

Subgroups: The MEW Companies have formed three focused subgroups to address the components of the supplemental RI/FS: RI Subgroup, FS Subgroup, and IC/Remedy Management Subgroup. Each subgroup includes participants from the MEW Companies and NASA. The Navy was invited to participate, but declined. The names of participants in each subgroup have been provided to EPA, and the RI Subgroup has already had meetings with EPA to discuss the Supplemental RI. The FS Subgroup met with EPA on 10 August 2006. Each subgroup's members have expertise focused on the mission of that subgroup.

The EPA has been provided with the contact information for each of the PRPs, the project director, and the subgroup participants.

SPECIFIC COMMENTS ON SUPPLEMENTAL RI/FS VI WORK PLAN

Comment 1: Section 3.1, Conceptual Model

- (a) This section focuses on VOC intrusion into buildings through soil vapor migration pathways. While these pathways are predominant at the MEW Site, another significant source of VOCs in indoor air is groundwater intrusion into basements and other subsurface structures. Because this pathway has been observed at the MEW Site and is also possible north of 101 on Moffett Field due to shallow groundwater it needs to be included and discussed in the conceptual model.
- (b) The conceptual model depicted in Section 3.1 and Section 5.1 only shows a commercial office building. The Supplemental RI should also include a conceptual site model which includes buildings and residences with different foundation types, which are representative of Site conditions.
- (c) The discussion of “Background Sources” does not include the most recent Bay Area Air Quality Management District (BAAQMD) monitoring data for Mountain View. The BAAQMD air monitoring data for Mountain View (May 2004 – December 2005) should be used in the Supplemental RI report as it more accurately represents current ambient conditions.

Response: The Supplemental RI Report includes a revised Conceptual Model in Chapter 3, which addresses this comment, including (a) groundwater intrusion into a basement (e.g., 644 National Avenue) or subsurface structure, and (b) a depiction of the three types of construction of residences (slab-on-grade, crawlspace, basements). In response to subparagraph (c) the data from the BAAQMD air monitoring station in Whisman Park were received from EPA after the work plan was prepared, but are included in the Draft Supplemental RI Report. A brief discussion of the data is included in the revised conceptual model.

Comment 2: Section 5.3, Results for Commercial Buildings

- (a) The first paragraph of this section incorrectly states that “All measured indoor air concentrations met the interim action level except for buildings that were vacant or in buildings where ventilation systems were not operated, or not operated properly.” This has not been fully evaluated for many buildings (including the 501 Ellis Street and NASA buildings). Other buildings have elevated levels of TCE when the ventilation system is operating properly on night and/or weekend mode. Additionally the ventilation system installed at the 644 National building was unable to reduce TCE levels in the basement to below the interim action level. This statement and other similar generalizations should not be included in future documents.
- (b) This section inconsistently reports concentrations found in the commercial buildings. Sometimes actual values are reported and sometime phrases such as “slightly above” are used. This makes the general evaluation of data in this section difficult to follow. The actual values should be reported when a chemical concentration is being referred to or compared.
- (c) When discussing background and reference samples, data collected by EPA, NASA and Navy should also be incorporated.

Response: In response to subparagraph (a) of this comment on Chapter 4 of the Draft Supplemental RI report includes a building-by-building discussion of the air sampling results as well as an evaluation of implemented mitigation measures. Chapter 5 includes further data analyses and findings from the evaluations of building parameters, such as ventilation, and type of construction. The RI clarifies under which conditions the interim action levels were met, and provides a detailed analysis of the relationship between ventilation and indoor air quality.

In response to subparagraph (b) Chapter 4 of the RI includes a formatted discussion of each building sampled. A consistent methodology is used in evaluating each building. Actual concentrations are discussed to present data before and after mitigation measures are implemented.

In response to subparagraph (c) Section 4.2 of the RI presents background/reference data and calculations of MEW background levels. Background data from NASA, EPA, and the BAAQMD are used in the calculations. The outdoor data collected by the Navy are used to compare indoor residential data in the former units at Wescoat Housing to outdoor concentrations.

Comment 3: Section 5.4, Residential Sampling West of Whisman Road

This section states that one residence (Residence 4) had indoor air levels exceeding EPA's interim action level for TCE of 1 microgram per cubic meter of air ($\mu\text{g}/\text{m}^3$). However, several other residences (Residences 8, 11, 13) had results that exceeded the interim action level. The Supplemental RI Report should discuss all the results including EPA's work to determine indoor sources and the evaluation of Residence 11 that had one indoor air sample that exceeded the interim action level that is likely attributable to vapor intrusion.

Response: The RI report includes a detailed discussion of the residential sampling. Specific sections in the RI report separately discuss Residences 4, 8, 11, and 13. The RI report also includes TCE plots for each of the residences.

Comment 4: Section 7.2 Community Relations

EPA is assessing the community involvement needs for the MEW Site and may be updating the Community Involvement Plan.

Response: Comment noted.

Comment 5: Figure 3-1 Vapor Intrusion Study Area

Figure 3-1 does not appear to include all areas overlying the TCE shallow groundwater contamination and the appropriate buffer zone. A detailed map of the vapor intrusion study area, which includes all areas overlying the estimated TCE shallow groundwater plume, must be included in the Supplemental RI report.

Response: The RI Report includes a revised Figure 3-1. This revised figure superimposes the estimated 5 $\mu\text{g}/\text{L}$ TCE contour line on the vapor intrusion study area.

Comment 6: References

The Supplemental RI Report should use the most updated sampling reports and available data from NASA, Clark Realty at Wescoat Village Housing, Erler & Kalinowski/Keenan-Lovewell for the former 465 N Whisman property, and the Navy's Air Sampling Report for Orion Park and Wescoat Housing Areas, dated March 11, 2005.

Response: NASA provided Locus with an electronic version of its database for its vapor intrusion investigation. This database was used in the Draft Supplemental RI report. In July 2006, EPA provided Locus with the recent air investigation data at Wescoat Village. The Draft Supplemental RI report includes discussions of these data. In addition, the data on 425-495 N. Whisman are included in the Draft Supplemental RI along with a discussion of the precautionary measures implemented during construction at that site. Data related to Wescoat Housing from the Navy 11 March 2005 report is included in the Draft Supplemental RI report.