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**REMEDIAL PROJECT MANAGERS' MEETING MINUTES  
NASA/JET PROPULSION LABORATORY CERCLA PROGRAM  
9 MARCH 1993**

**Attendees:** Organizations represented at the Remedial Project Managers' (RPMs') meeting included the following:

- U.S. EPA (EPA)/Federal Enforcement Branch, Region 9, San Francisco, CA
- California EPA/Department of Toxic Substances Control (DTSC), Region 3
- NASA, NASA Residence Office, Jet Propulsion Laboratory
- Los Angeles Area California Regional Water Quality Control Board (RWQCB)
- California Institute of Technology (CALTECH), Contractor to NASA
- Jet Propulsion Laboratory, Contractor to NASA
- Ebasco Environmental, Contractor to JPL
- URS Consultants, Contractor to EPA

A list of individuals attending this RPM meeting is attached to these minutes.

**OBJECTIVE:**

The purpose of the NASA/Jet Propulsion Laboratory meeting held on 9 March 1993 at the Jet Propulsion Laboratory in Pasadena, California was to discuss previous source identification efforts and selected administrative issues.

**TOPIC: MISCELLANEOUS ITEMS**

EPA Report "Aerial Photographic Analysis of the NASA/Jet Propulsion Laboratory" was distributed by EPA. JPL requested comments from the agencies. No comments could be made at this meeting, as the agencies had only received the report very recently.

**TOPIC: PREVIOUS SOURCE IDENTIFICATION EFFORTS - DTSC CONCERNS NOTED ON AERIAL PHOTOS**

**Discussion:**

EBASCO gave historical data on locations identified from photographs for possible investigation in response to a written request for more information from DTSC. The locations were broken down by the year of the aerial photograph on which they were noted.

DTSC's handout from the January 15-16 meeting is attached to these minutes.

The historical information discussed is as follows:

1954

North of Bldg. 67, "Open Storage Area" - The area was used for scrap and construction material storage.

South of Bldg. 78, "Lagoons" - This was a concrete-lined, water-filled channel used to test aerodynamic factors of torpedo designs. The photo shows vegetation along the side with irregular shadows from trees on the edge.

South of Lagoons, Impoundments - This was a bermed area with vegetation in the middle used by the City of Pasadena as a dump for metal shavings, wood scraps, and glass. There are no reports of liquid disposal at this site. At the time of the aerial photo, the area was owned by the City of Pasadena.

DTSC asked whether JPL was aware of the previous use of the area as a dump when they purchased the property. JPL responded that they were unsure if this information was known at the time of purchase.

DTSC requested information on the types of metals disposed of at the dump. EBASCO responded that the metals consisted of tin cans and metal shavings.

JPL noted that JPL hadn't disposed of anything at the site either during its ownership or during the City's ownership. DTSC stated that NASA/JPL was responsible for any materials on the site.

Near Bldg. 114 - This area was a horse farm. It was not owned by JPL at the time of the aerial photo.

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Bldgs. 156 & 125 - DTSC noted that this comment was to address a concern regarding the use prior to development. Ebasco noted there was no known storage of hazardous materials in this location.

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water from a hand-washing sink at the soils lab. There were no chemical labs in this building at the time of the photo.

Building 78 - DTSC asked why the building was demolished. EBASCO stated that the demolition was part of normal facility changes that remove old buildings to make way for new ones. EPA requested information on what activities took place at the building. JPL stated that the building was not identified as a problem area. EBASCO said that two septic tanks had been removed but had shown no reason for concern. EBASCO noted that Buildings 78 and 113 will be torn down in the near future to make way for parking structures.

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South of Building 168 - EBASCO stated that the area was under construction and that it had previously been a part of an equestrian park.

**Action:**

EBASCO will inform the group of the previous uses of Building 78.

EBASCO will inform the group of the previous uses of Building 183.

**1972**

Flat Area Between Buildings 148 & 197 - JPL stated that the area was and is not flat. There is fairly rugged terrain with steep slopes. EBASCO noted that disturbance of some of the vegetation in the photos was caused by the installation of fire control sprinkler systems.

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**TOPIC: PREVIOUS SOURCE IDENTIFICATION EFFORT - RWQCB COMMENTS FROM PREVIOUS MEETING**

EBASCO responded to written questions from RWQCB. The questions are appended to these minutes for reference.

**Source Identification**

EBASCO noted that there is no correlation between test pit numbers in the Slade Report and current seepage pit numbers. There were also some errors in the report regarding the number of test pits that were dug. Slade dug 8 test pits. The northernmost pit was for background readings on the site. Pit numbers 2, 3, and 4 were associated with the Bldg. 59 cesspool. Slade located the cesspool in pit # 3. This location correlates with boring # 16 in the Ebasco work. Ebasco boring #13 correlates with Bldg. 65. Slade location # 13 is under the present Bldg. 302 and location # 16 is on the front porch of Bldg. 303. After extensive discussions regarding source identification, it was noted that pits being investigated must be described so there is no ambiguity in pit identification. Also, rationale must be presented for those pits not being investigated. JPL and EBASCO explained that the locations had been studied for access, including slant drilling, but to date no solution could be found that did not endanger the operations in Bldg. 302. RWQCB noted that up gradient and down gradient wells as close as possible to the building should be considered. EBASCO suggested collecting passive soil gas data rather than installing wells. RWQCB said that because putting a building on the site may have changed the soil conditions, passive soil gas data probably would not be acceptable. EBASCO stated that there was a major concern about forcing wells into an area that could effect sensitive studies. EBASCO pointed out that the former sump and 10s of feet of soil below the sump were removed when the building basement was constructed. JPL stated that all ways to collect the data would be reviewed.

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potential existed that researchers had rinsed small quantities of chemicals down sinks that were designed for sanitary use only.

DTSC asked for the locations where engines that had been tested were washed down with solvent. EBASCO stated that the testing engines were hand-sized models. There was no hosing down of large engines with solvent taking place at this facility. DTSC requested purchasing records to show solvent use. EBASCO stated that purchasing records from the 1940's and 50's apparently do not exist.

RWQCB and EPA noted that a release notice authored by Don Lafontan in the JPL Facilities Division stated that the discovery of soils with high carbon tetrachloride content was in a dilution chamber. JPL and EBASCO stated that the release notice was in error. The carbon tetrachloride was located in an old storm drain. Upon review of the meeting minutes, EPA stated that the agencies requested a copy of the closure report on the storm drain.

JPL noted that the RWQCB request for descriptions, locations, and access problems for the seepage pits or dry wells that have been eliminated from further investigation based in inaccessibility will be provided in the historical document.

JPL told RWQCB that the remaining questions would be addressed in the Workplan and the Field Sampling and Analysis Plan.

JPL stated that no contaminants have been detected in the stormwater discharge monitoring to date. EBASCO noted that the stormwater system has only changed on a microscale. Most of the system is buried deep below the buildings. JPL stated that it is premature to approach a study of the stormdrain system at this time. RWQCB noted that the stormdrain system should at least be mentioned in the Workplan.

The RWQCB had mailed a list of questions on several subjects to NASA JPL previous to the meeting. The list of questions is attached. Responses to the questions are listed by subject heading below:

#### **SOIL SAMPLING AND ANALYSIS**

Response to the questions posed by the RWQCB under this heading were as follows:

1. JPL will do soil gas sampling instead of soil sampling for VOCs.
2. JPL agrees with this approach.
3. JPL agrees with this approach.

## GROUNDWATER INVESTIGATIONS

Response to the questions posed by the RWQCB under this heading were as follows:

1. JPL will consider a well upgradient from MW-7.
2. JPL has observed large fluctuations in groundwater levels. Data should be available in the quarterly monitoring reports.
3. JPL will cover this item during well construction.
4. EBASCO noted that this was tried unsuccessfully. EBASCO stated that there is a very high percentage of fines.
5. JPL agrees with this suggestion.
6. JPL will utilize whatever technique is necessary to assure well water has stabilized before sampling.

## SOIL GAS SURVEY

Response to the questions posed by the RWQCB under this heading were as follows:

1. JPL stated that this will be in the Sampling Plan.
2. JPL does plan to propose some vapor monitoring wells with discrete vertical sampling capability.
3. EBASCO stated that this method has been very unsuccessful in the past on this site. RWQCB notes that it is just a suggestion.

## WORK PLAN PREPARATION

Response to the questions posed by the RWQCB under this heading were as follows:

1. i, ii, & iii - these are covered by the map provided by Ebasco in today's meeting.  
iv - JPL will provide these maps in the Workplan.
2. Whenever the information is available, JPL will provide dates for historical facilities maps.
3. JPL agreed to make this available in the Workplan.
4. Agreed.

EBASCO commented that pits were numbered in the order that they were found.

JPL asked EPA if public review was required after agency concurrence that the documents are final. EPA responded that public review does not occur after the documents are finalized. In addition, EPA added that the documents become final according to the schedule in the FFA. Therefore, the lack of comments from a regulatory agency within the allotted time allows the documents to go final without formal agency concurrence.

EPA asked if copies of FFA had been sent to the Natural Resources Trustees (NRTs) by NASA pursuant to the FFA. EPA

asked if the State had sent copies of the Agreement to other State agencies that may be interested in reviewing the document. EPA stated that NOAA has made the determination that JPL will not be under the jurisdiction of NOAA. JPL stated that they haven't heard from the NRTs that were solicited for comment on the FFA.

**Actions:**

JPL and EBASCO will provide corrections to the Site Investigation (SI) and Preliminary Investigation (PI) with the workplan.

JPL and EBASCO will provide a description in narrative form that includes a short discussion of all activities at buildings on site, a description of how the buildings are plumbed together, and a discussion of which seepage pit the buildings are connected to. If available, specific engineering drawings will be referenced.

JPL and EBASCO will discuss the level of effort required to provide available information on seepage pits, including whether the pits are lined or unlined; whether it was a catch basin, a dilution chamber, a clarifier, or part of the storm drain; if the pits were connected to sewer lines or not; and the sizes and material of construction.

JPL will send the last monitoring report to RWQCB.

**TOPIC: ADMINISTRATIVE REQUIREMENTS**

EPA gave JPL copies of two guidance documents, one for Administrative Records and one for Superfund Community Relations, a copy of a good example of a Community Relations Plan, and an example of meeting minutes that EPA, DTSC, and RWQCB all agree are good. A better example of a CRP will be mailed to JPL in a few weeks.

EBASCO turned over two copies of a facility map showing all sampling locations to date to RWQCB and DTSC. An additional copy will be made for EPA.

**Discussion:**

JPL noted that Fact Sheet # 2 is ready to go to press. The Regulatory Agencies requested to review the Fact Sheet prior to going to print.

EPA noted that the dates, requirements, public notices, and comment periods in the FFA must be strictly adhered to.

EPA explained that the Administrative Record is a formal record that contains specific major documents. It should contain any record used to come to a decision. Upon review of the meeting minutes, the EPA clarified that the Administrative

Record only includes specific documents as outlined in EPA guidance. The Information Repository contains all additional records that are used or created to make decisions throughout the process. The Information Repository will include the meeting minutes, however, EPA and the State must approve the minutes before they are sent to the repository. JPL asked if an index was required for the Information Repository. EPA agreed to determine if an index was required.

EPA stressed the importance of good meeting minutes because they will be part of the IR, and that we will most likely have to refer back to the minutes for decisions previously made. JPL noted that they are currently exploring options for documenting minutes. JPL also agreed to pattern future meeting minutes after the example provided at this meeting by EPA. The format included an attendees list, actions, action items from previous meetings, and a summary of current action items. EPA suggests that it is very helpful for the RPM to review action items at the end of each meeting.

JPL requested agency comments on minutes from the last meeting. EPA is compiling comments and will send them as soon as possible. DTSC and RWQCB have not reviewed the minutes yet.

EPA noted that the State and EPA define a "Work Plan" and a "Field Sampling and Analysis Plan" differently. EPA, and the state regulatory agencies agreed upon format, defines a Work Plan to be a more general, all encompassing document, and the Sampling and Analysis Plan is very specific and detailed for each Operable Unit (OU). The historical background and data will be a part of the Work Plan. EPA further identified that addenda can be developed to the Work Plan as new information is made available. EBASCO stated that, based on the inclusion of the historical summary in the workplan, they are very concerned with putting the workplan together for all three OUs by June 4. URS pointed out that the detailed rationale for boring locations is part of the FSAP in July. The site history is necessary for the workplan, but the pit by pit discussion could be in the source control section of the FSAP.

EBASCO said that RWQCB had sent an example of a QAPP, but that EPA has a different format. EPA stated that an agreement was worked out between EPA and RWQCB and that RWQCB format is acceptable. Upon review of the meeting minutes, EPA clarified that, per discussion with the Los Angeles RWQCB, there was an agreement made between the Los Angeles RWQCB and the San Gabriel Project EPA personnel regarding the format of the Quality Assurance Project Plan (QAPP) for this project. This format can be used as long as it incorporates all of the requirements specified in the EPA guidance for a QAPP.

EPA asked approximately how many people were on NASA JPL's list to receive the Fact Sheets. EPA then recommended that JPL get in touch with EPA Region IX's Community Relations

representative in order to get ideas about how to develop a more comprehensive mailing list for the surrounding community. EPA explained that community notification and participation is a very important part of this process. JPL agreed, and asked for a contact at the EPA Regional Office.

EPA asked if Don Lafontan had turned over copies of all Superfund documents to EAO. JPL responded that they are still pulling documents now that EAO is the focal point for the project at the Laboratory. EAO is confident that they have approximately 99% of the documents.

**Action:**

EPA will check to see if an index is required for the Information Repository and get this information to JPL.

EPA, DTSC, and RWQCB will provide comments on the minutes from the previous meeting to JPL.

EPA will send JPL the name and phone number of their community relations expert.

JPL will send whatever form of closure report that is available for the storm drain where the carbon tetrachloride was found to the agencies.

EPA will send example copies of Table of Contents for FSAP and WP to JPL.

**TOPIC: SCHEDULE COMMENTS**

EPA stated that they do not require a schedule beyond the ROD, at this time. Section 8.3 of the FFA requires that, within 21 days of the issuance of ROD, further schedules will be determined.

The RWQCB request for validated data provided for interim review is an FFA requirement under Section 22. This should be furnished ASAP, but not later than 60 days after sampling.

EPA directed the following changes to the schedule:

- Replace the term FSAP with Workplan and Workplan with FSAP, based on the clarified definition of terms.
- ROD schedule looks good, but should be taken to ROD finalization. EPA reviews the ROD for 60 days. There is concurrent public review. JPL has 60 days to finalize the ROD.
- Days means calendar days. Therefore, agency review times should be shortened to reflect this.
- Drop the "early start" and "early finish" terms in favor of "start" and "finish".
- Remove lab data validation dates. Only major publications go on the date list.

EPA advised that as the schedule stands regarding the timing on the ROD, the responsiveness summary would be included in the draft ROD. JPL agreed.

RWQCB confirmed that the OU designation and schedule is acceptable.

JPL stated that the schedule is workable, but very tight and proposed that all parties hold some type of meeting 45 days into the review to get some advance notice of comments. EPA agreed to this.

**Action:**

JPL will make all changes discussed above and provide the schedule to EPA by Tuesday or Wednesday of next week.

**MISCELLANEOUS TOPICS:**

EPA noted that Charles Thomas from the City of Pasadena called to ask for an extension on the comment period for the FFA until March 23rd. EPA informed Thomas that the review period was already past, and although comments would still be appreciated, there was no avenue to address those comments. Thomas seemed to be satisfied that comments would be looked at, if submitted. Thomas asked how familiar the regulators were with the Devil's Gate Multi-use Project. EPA suggested that Thomas call a meeting to explain the project and specified that the regulators and JPL should be invited to the meeting.

RWQCB expressed a need for cross-sections. It was concluded that, because the site is high on an alluvial fan, close to a fault, and beset with difficult drilling conditions, it is unlikely that sufficiently detailed data could be obtained to do accurate cross-sections. However, data will be provided, if possible.

RWQCB has a guideline requiring soil samples for VOCs to be analyzed within 7 days.

JPL noted that the recent heavy rainfall flooded the Arroyo and wiped out the road to wells 1 and 9.

EBASCO stated that MW2 was checked in January, but was still dry.

EPA noted that the EPA Resource Conservation and Recovery Act (RCRA) site inspection report is being held while waiting for more information from headquarters.

Due to an error in the public notice published in February 1993, JPL was concerned with how comments would be addressed if received from the public since there would be no legal

avenue to respond. EPA advised that all comments received would be informally addressed.

EBASCO noted that some buildings have only one drawing remaining, therefore historical data is not available. JPL noted that best information available will be provided.

URS requested maps showing which buildings had been demolished. EPA requested information regarding building demolitions or replacements be placed in a table format.

**Action:**

EPA will set the schedule to the meeting with Charles Thomas to hear about the Devil's Gate Multi-use Project.

JPL will provide the regulatory agencies with maps showing which buildings had been demolished.

JPL will supply building demolition and current status of areas in table format.

**SUMMARY OF ACTION ITEMS**

EBASCO will inform the group of the previous uses of Building 78.

EBASCO will inform the group of the previous uses of Building 183.

JPL and EBASCO will provide corrections to the SI and ESI PI with the workplan.

JPL and EBASCO will provide a description in narrative form that includes a short discussion of all activities at buildings on site, a description of how the buildings are plumbed together, and a discussion of which seepage pit the buildings are connected to. If available, specific engineering drawings will be referenced.

Figures 4.1 and 4.3 will be provided in the Workplan. Upon review of the meeting minutes, EPA clarified that Figures 4.1 and 4.3 should be sent to the regulatory agencies as soon as possible.

JPL will send the last monitoring report to RWQCB.

JPL will reevaluate sampling around Building 302 and attempt to find a means to sample.

JPL will review the possibility of incorporating a complete historical compendium in the Workplan. The level of effort will be discussed with EBASCO.

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EPA, DTSC, and RWQCB will provide comments on the minutes from the previous meeting to JPL.

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EPA will set the schedule to the meeting with Charles Thomas to hear about the Devil's Gate Multi-use Project.

**NASA/Jet Propulsion Laboratory Remedial Project Managers Meeting  
8 March 1993**

**ATTENDEE LIST**

<b><u>Name</u></b>	<b><u>Organization</u></b>	<b><u>Phone</u></b>
Charles L. Buri	JPL	(818)354-0180
Judy Novelly	JPL	(818)354-8634
Dora Huff	NASA, Contracting Officer	(818)354-6315
Dan Melchior	Ebasco - Arlington, VA	(703)358-8911
Mark Cutler	Ebasco - Santa Ana, CA	(714)662-4056
Penny Nakashima	Cal/EPA DTSC	(818)551-2881
Bruce Ross	URS - Sacramento, CA	(916)929-2346
Michelle Schutz	U.S. EPA	(415)744-2396
Tizita Bekele	RWQCB	(213)266-7540
B. G. Randolph	Ebasco - Santa Ana, CA	(714)662-4141
Robert C. Pool	Caltech - General Council	(818)354-2159

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RWQCB and EPA noted that a release notice authored by Don Lafontan in the JPL Facilities Division stated that the discovery of soils with high carbon tetrachloride content was in a dilution chamber. JPL and EBASCO stated that the release notice was in error. The carbon tetrachloride was located in an old storm drain. *Upon review of the meeting minutes, EPA stated that the agencies requested a copy of the closure report on the storm drain.*

JPL noted that the RWQCB request for descriptions, locations, and access problems for the seepage pits or dry wells that have been eliminated from further investigation based in inaccessibility will be provided in the historical document.

JPL told RWQCB that the remaining questions would be addressed in the Workplan and the Field Sampling and Analysis Plan.

JPL stated that no contaminants have been detected in the stormwater discharge monitoring to date. EBASCO noted that the stormwater system has only changed on a microscale. Most of the system is buried deep below the buildings. JPL stated that it is premature to approach a study of the stormdrain system at this time. RWQCB noted that the stormdrain system should at least be mentioned in the Workplan.

*The RWQCB had mailed a list of questions on several subjects to NASA JPL previous to the meeting. The list of questions is attached. Responses to the questions are listed by subject heading below:*

#### **SOIL SAMPLING AND ANALYSIS**

Response to the questions posed by the RWQCB under this heading were as follows:

1. JPL will do soil gas sampling instead of soil sampling for VOCs.
2. JPL agrees with this approach.
3. JPL agrees with this approach.

## GROUNDWATER INVESTIGATIONS

Response to the questions posed by the RWQCB under this heading were as follows:

1. JPL will consider a well upgradient from MW-7.
2. JPL has observed large fluctuations in groundwater levels. Data should be available in the quarterly monitoring reports.
3. JPL will cover this item during well construction.
4. EBASCO noted that this was tried unsuccessfully. EBASCO stated that there is a very high percentage of fines.
5. JPL agrees with this suggestion.
6. JPL will utilize whatever technique is necessary to assure well water has stabilized before sampling.

## SOIL GAS SURVEY

Response to the questions posed by the RWQCB under this heading were as follows:

1. JPL stated that this will be in the Sampling Plan.
2. JPL does plan to propose some vapor monitoring wells with discrete vertical sampling capability.
3. EBASCO stated that this method has been very unsuccessful in the past on this site. RWQCB notes that it is just a suggestion.

## WORK PLAN PREPARATION

Response to the questions posed by the RWQCB under this heading were as follows:

1. i, ii, & iii - these are covered by the map provided by Ebasco in today's meeting.  
iv - JPL will provide these maps in the Workplan.
2. Whenever the information is available possible, JPL will provide dates for historical facilities maps.
3. JPL agreed to make this available in the Workplan.
4. Agreed.

EBASCO commented that pits were numbered in the order that they were found.

JPL asked EPA if public review was required after agency concurrence that the documents are final. EPA responded that public review does not occur after the documents are finalized. In addition, EPA added that the documents become final according to the schedule in the FFA. Therefore, the lack of comments from a regulatory agency within the allotted time allows the documents to go final without formal agency concurrence. ~~nothing is required, not even formal concurrence.~~

EPA asked if copies of FFA had been sent to the Natural Resources Trustees (NRTs) by NASA pursuant to the FFA ~~other~~

agencies. EPA asked if the State had sent copies of the Agreement to other State agencies that may be interested in reviewing the document. EPA stated that NOAA has made the determination that JPL will not be under the jurisdiction of NOAA ~~does not want to be involved~~. JPL stated that they haven't heard from the NRTs that were solicited for comment ~~other groups~~ on the FFA.

**Actions:**

JPL and EBASCO will provide corrections to the Site Investigation (SI) and Preliminary Investigation (PI) with the workplan.

JPL and EBASCO will provide a description in narrative form that includes a short discussion of all activities at buildings on site, a description of how the buildings are plumbed together, and a discussion of which seepage pit the buildings are connected to. If available, specific engineering drawings will be referenced.

JPL and EBASCO will discuss the level of effort required to provide available information on seepage pits, including whether the pits are lined or unlined; whether it was a catch basin, a dilution chamber, a clarifier, or part of the storm drain; if the pits were connected to sewer lines or not; and the sizes and material of construction.

JPL will send the last monitoring report to RWQCB.

**TOPIC: ADMINISTRATIVE REQUIREMENTS DOCUMENTS EXCHANGED**

EPA gave JPL copies of two guidance documents, one for Administrative Records and one for Superfund Community Relations, a copy of a good example of a Community Relations Plan, and an example of meeting minutes that EPA, DTSC, and RWQCB all agree are good. A better example of a CRP will be mailed to JPL in a few weeks.

EBASCO turned over two copies of a facility map showing all sampling locations to date to RWQCB and DTSC. An additional copy will be made for EPA.

**Discussion:**

JPL noted that Fact Sheet # 2 is ready to go to press. The Regulatory Agencies requested to review the Fact Sheet prior to going to print.

EPA noted that the dates, requirements, public notices, and comment periods in the FFA must be strictly adhered to.

EPA explained that the Administrative Record is a formal record that contains specific major documents. It should contain any record used to come to a decision. Upon review of

the meeting minutes, the EPA clarified that the Administrative Record only includes specific documents as outlined in EPA guidance. The Information Repository contains all additional records that are used or created to make decisions throughout the process. The Information Repository will include the meeting minutes, however, EPA and the State must approve the minutes before they are sent to the repository. JPL asked if an index was required for the Information Repository. EPA agreed to determine if an index was required.

EPA stressed the importance of good meeting minutes because they will be part of the IR, and that we will most likely have to refer back to the minutes for decisions previously made. JPL noted that they are currently exploring options for documenting minutes. JPL also agreed to pattern future meeting minutes after the example provided at this meeting by EPA. The format included an attendees list, actions, action items from previous meetings, and a summary of current action items. EPA suggests that it is very helpful for the RPM to review action items at the end of each meeting.

JPL requested agency comments on minutes from the last meeting. EPA is compiling comments and will send them as soon as possible. DTSC and RWQCB have not reviewed the minutes yet.

EPA noted that the State and EPA agencies define a "Work Plan" and a "Field Sampling and Analysis Plan" differently. EPA, and the state regulatory agencies agreed upon format, defines a Work Plan to be a more general, all encompassing document, and the Sampling and Analysis Plan is very specific and detailed for each Operable Unit (OU). The historical background and data will be a part of the Work Plan. EPA further identified that addenda can be developed to the Work Plan as new information is made available. For this project, the Workplan is a general document. There should be one Workplan which includes the historical summary for the project. The Historical Document would fall under Pg. 59 #3. The Sampling and Analysis Plan will be more detailed than the Workplan. It is acceptable to add addendums to the FSAP in order to give details for the Operating Units. RWQCB and DTSC agree to one Workplan. EBASCO stated that, based on the inclusion of the historical summary in the workplan, they are very concerned with putting the workplan together for all three OUs by June 4. URS pointed out that the detailed rationale for boring locations is part of the FSAP in July. The site history is necessary for the workplan, but the pit by pit discussion could be in the source control section of the FSAP.

EBASCO said that RWQCB had sent an example of a QAPP, but that EPA has a different format. EPA stated that an agreement was worked out between EPA and RWQCB and that RWQCB format is acceptable. Upon review of the meeting minutes, EPA clarified that, per discussion with the Los Angeles RWQCB, there was an

agreement made between the Los Angeles RWQCB and the San Gabriel Project EPA personnel regarding the format of the Quality Assurance Project Plan (QAPP) for this project. This format can be used as long as it incorporates all of the requirements specified in the EPA guidance for a QAPP.

~~EPA asked who the fact sheets are going to and said that this issue may need to be discussed with EPA's community relations expert.~~ EPA asked approximately how many people were on NASA JPL's list to receive the Fact Sheets. EPA then recommended that JPL get in touch with EPA Region IX's Community Relations representative in order to get ideas about how to develop a more comprehensive mailing list for the surrounding community. EPA explained that community notification and participation is a very important part of this process. JPL agreed, and asked for a contact at the EPA Regional Office.

EPA asked if Don Lafontan had turned over copies of all Superfund documents to EAO. JPL responded that they are still pulling documents now that EAO is the focal point for the project at the Laboratory. EAO is confident that they have approximately 99% of the documents.

**Action:**

EPA will check to see if an index is required for the Information Repository and get this information to JPL.

EPA, DTSC, and RWQCB will provide comments on the minutes from the previous meeting to JPL.

EPA will send JPL the name and phone number of their community relations expert.

JPL will send whatever form of closure report that is available for the storm drain where the carbon tetrachloride was found to the agencies.

EPA will send example copies of Table of Contents for FSAP and WP to JPL.

**TOPIC: SCHEDULE COMMENTS**

EPA stated that they do not require a schedule beyond the ROD, at this time. Section 8.3 of the FFA requires that, within 21 days of the issuance of ROD, further schedules will be determined.

The RWQCB request for validated data provided for interim review is an FFA requirement under Section 22. This should be furnished ASAP, but not later than 60 days after sampling.

EPA directed the following changes to the schedule:

- Replace the term FSAP with Workplan and Workplan with FSAP, based on the clarified definition of terms.

- ROD schedule looks good, but should be taken to ROD finalization. EPA reviews the ROD for 60 days. There is concurrent public review. JPL has 60 days to finalize the ROD.
- Days means calendar days. Therefore, agency review times should be shortened to reflect this.
- Drop the "early start" and "early finish" terms in favor of "start" and "finish".
- Remove lab data validation dates. Only major publications go on the date list.

*EPA advised that as the schedule stands regarding the timing on the ROD, the responsiveness summary would be included in the draft ROD. JPL agreed.*

RWQCB confirmed that the OU designation and schedule is acceptable.

JPL stated that the schedule is workable, but very tight and proposed that all parties hold some type of meeting 45 days into the review to get some advance notice of comments. EPA agreed to this.

**Action:**

JPL will make all changes discussed above and provide the schedule to EPA by Tuesday or Wednesday of next week.

**MISCELLANEOUS TOPICS:**

EPA noted that Charles Thomas from the City of Pasadena called to ask for an extension on the comment period for the FFA until March 23rd. EPA informed Thomas that the review period was already past, and although comments would still be appreciated, there was no avenue to address those comments. Thomas seemed to be satisfied that comments would be looked at, if submitted. Thomas asked how familiar the regulators were with the Devil's Gate Multi-use Project. EPA suggested that Thomas call a meeting to explain the project and specified that the regulators and JPL should be invited to the meeting.

RWQCB expressed a need for cross-sections. It was concluded that, because the site is high on an alluvial fan, close to a fault, and beset with difficult drilling conditions, it is unlikely that sufficiently detailed data could be obtained to do accurate cross-sections. However, data will be provided, if possible.

RWQCB has a guideline requiring soil samples for VOCs to be analyzed within 7 days.

JPL noted that the recent heavy rainfall flooded the Arroyo and wiped out the road to wells 1 and 9.

EBASCO stated that MW2 was checked in January, but was still dry.

EPA noted that the EPA Resource Conservation and Recovery Act (RCRA) site inspection report is being held while waiting for more information from headquarters.

~~JPL asked if they need to respond to comments on the schedule that come in between March 5 and 25, 1993. EPA said not to respond. Due to an error in the public notice published in February 1993, JPL was concerned with how comments would be addressed if received from the public since there would be no legal avenue to respond. EPA advised that all comments received would be informally addressed.~~

EBASCO noted that some buildings have only one drawing remaining, therefore historical data is not available. JPL noted that best information available will be provided.

URS requested maps showing which buildings had been demolished. EPA requested information regarding building demolitions or replacements be placed in a table format.

**Action:**

EPA will set the schedule to the meeting with Charles Thomas to hear about the Devil's Gate Multi-use Project.

*JPL will provide the regulatory agencies with maps showing which buildings had been demolished.*

*JPL will supply building demolition and current status of areas in table format.*

**SUMMARY OF ACTION ITEMS**

EBASCO will inform the group of the previous uses of Building 78.

EBASCO will inform the group of the previous uses of Building 183.

JPL and EBASCO will provide corrections to the SI and ESI PI with the workplan.

JPL and EBASCO will provide a description in narrative form that includes a short discussion of all activities at buildings on site, a description of how the buildings are plumbed together, and a discussion of which seepage pit the buildings are connected to. If available, specific engineering drawings will be referenced.

Figures 4.1 and 4.3 will be provided in the Workplan. Upon review of the meeting minutes, EPA clarified that Figures 4.1

*and 4.3 should be sent to the regulatory agencies as soon as possible.*

JPL will send the last monitoring report to RWQCB.

JPL will reevaluate sampling around Building 302 and attempt to find a means to sample.

JPL will review the possibility of incorporating a complete historical compendium in the Workplan. The level of effort will be discussed with EBASCO.

EPA will check to see if an index is required for the Information Repository and get this information to JPL.

EPA, DTSC, and RWQCB will provide comments on the minutes from the previous meeting to JPL.

EPA will send JPL the name and phone number of their community relations expert.

JPL will send whatever form of closure report that is available for the storm drain where the carbon tetrachloride was found to the agencies.

EPA will send example copies of Table of Contents for FSAP and WP to JPL.

JPL will make all changes discussed above and provide the schedule to EPA by Tuesday, March 16.

EPA will set the schedule to the meeting with Charles Thomas to hear about the Devil's Gate Multi-use Project.

**NASA/Jet Propulsion Laboratory Remedial Project Managers Meeting  
8 March 1993**

**ATTENDEE LIST**

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