RESNA
Working To Restore Nature

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January 18, 1993
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Mr. Richard Hiett
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

Subject: Remediation Schedules for ARCO Sites in Alameda County, California.

Dear Mr. Hiett:

On behalf of ARCO Products Company (ARCO), RESNA has prepared these estimated schedules for remediation of sites under your regulatory oversight. These include ARCO Stations 276, 374, 2107, 2185, 4494 and 6148 in Oakland, California, ARCO Station 2035 in Albany, California, ARCO Station 2152 in Castro Valley, California, and ARCO Station 6041 in Dublin, California.

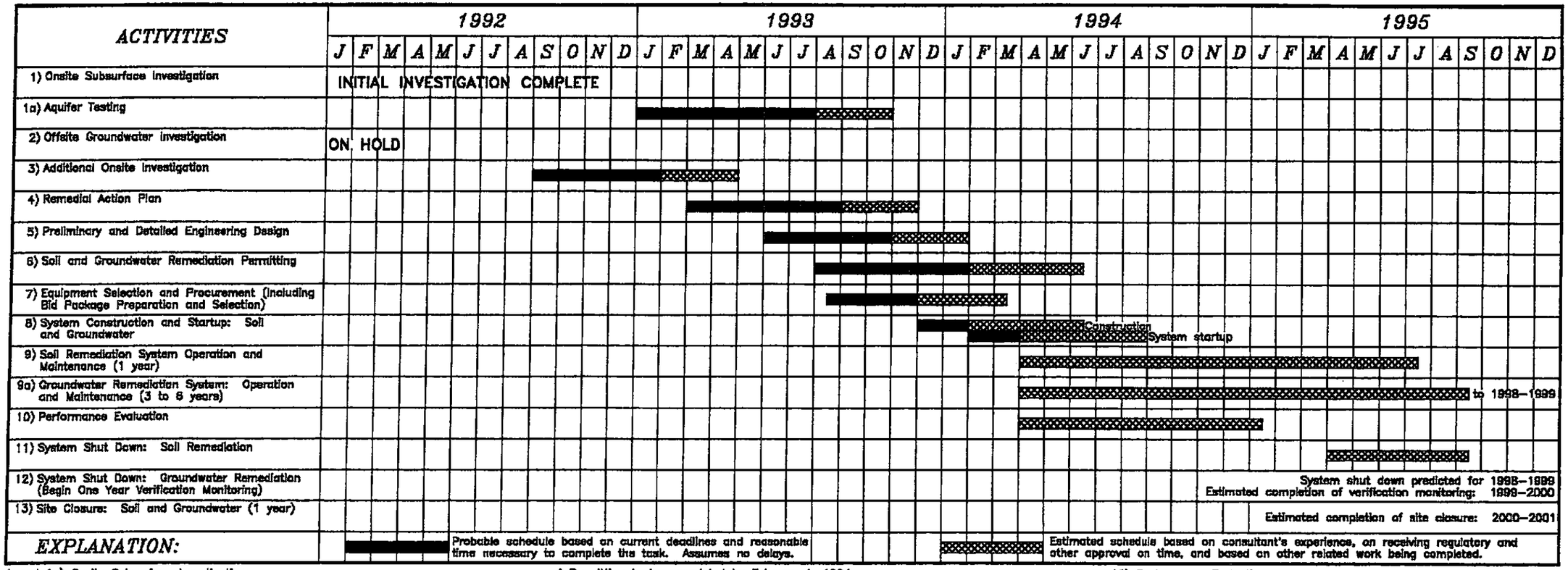
The darkened lines on the schedules represent deadlines which were agreed upon during the September 30, 1992 meeting at the Alameda County Health Care Services Agency (ACHCSA). The hatchered lines represent our best guess estimates of times which may be required to complete tasks should unforeseen delays occur. These unforeseen delays include permitting issues, offsite access issues, and estimated times of operation of the respective remediation systems.

If you have any questions or comments, please contact us at (408) 264-7723 or Mr. Michael Whelan of ARCO at (415) 571-2449.

Sincerely,
RESNA Industries Inc.

Joel Coffman
Project Manager

cc: Ms. Susan Hugo, ACHCSA
Mr. Michael Whelan, ARCO
Mr. John Meck, ARCO legal
Mr. Chris Winsor, ARCO
Mr. Mark Thomson, Alameda County D.A. (Cover Letter)



1 and 1a) Onsite Subsurface Investigation:
- Initial Onsite Assessment Report completed prior to 1992.
- Aquifer Test Report due to ACHCSA on August 1, 1993.

2) Offsite Groundwater Investigation:
- On hold per meeting at ACHCSA on September 30, 1992. ACHCSA to contact other responsible parties with more severe problems for offsite assessment.

3) Additional Onsite Investigation:
- Additional Onsite Subsurface Investigation and Vapor Extraction Test Report submitted by February 1, 1993.
- Report with results of the installation of recovery well and aquifer test is due on August 1, 1993.

4) Remedial Action Plan:
- Completion of offsite investigation will not affect remediation schedule.
- RAP due to ACHCSA by September 1, 1993.

5) Preliminary and Detailed Engineering Design:
- Assumes no RAP revisions are necessary.
- Assumes no changes to design after regulatory comments.
- Design to be completed by November 1, 1993.

6) Permitting (Soil and Groundwater):
- Assumes no design changes will make additional permitting necessary, including modification of treatment system.
- Also assumes no special regulatory agency, city committee, or other entity places special permitting requirements on this project.
- Assumptions concerning groundwater remediation are being made prior to performance of aquifer test at the site. Therefore, schedule pertaining to groundwater remediation may not reflect actual conditions and circumstances.
- Permitting to be completed by February 1, 1994.

7) Equipment Selection and Procurement:
- Assumes all equipment is available from stock and can be obtained within 4 to 6 weeks.
- Selected equipment approved by ACHCSA.
- Bids will be evaluated and contract will be awarded by December 1, 1993.
- Equipment will be received by February 1, 1994.

8) System Construction and Startup (Soil and Groundwater):
- Assumes no delays due to weather.
- Assumes no delays due to negotiation with property owners.
- Assumes no delays due to special permitting requirements.
- Assumes no delays due to other contractors performing work onsite.
- Assumes no delays due to utility installation.
- Construction startup February 1, 1994.
- System startup to begin by April 1, 1994.

9 and 9a) System Operation and Maintenance:
- It is anticipated that groundwater remediation can be completed within 3 to 6 years.
- Assumes that it is technically feasible to achieve cleanup levels.
- Assumes no offsite remediation will be necessary.
- Assumes no significant equipment breakdowns.
- Soil remediation system is expected to be in operation through April 1995.
- Groundwater remediation system is expected to be in operation through 1998 to 1999.

10) Performance Evaluation:
- Evaluation shows that system will effectively remove hydrocarbons from soil and groundwater impacted areas and will reduce concentrations significantly over time.
- Evaluation shows that additional vapor and groundwater extraction wells are not required to effectively remediate impacted areas once the treatment system is operational.
- Performance evaluation to be completed by October to December 1994.

11) Shut Down of Soil Remediation System:
- Cleanup will be completed in approximately 1 year after startup.
- Soil remediation system expected to be shut down by July to September 1995.

12) Shut down of Groundwater Remediation System:
- Cleanup will be completed approximately 3 to 6 years after startup.
- Only one year of verification groundwater monitoring will be required before site closure can be initiated.
- Groundwater remediation system expected to be shut down sometime in 1998 or 1999.

13) Site Closure:
- Requirements for soil closure involve only drilling of confirmation borings and performance evaluation at time of system shutoff.
- Requirements for groundwater closure involve only groundwater monitoring and performance evaluation at system shutoff.
- Closure dependent on agency concurrence within 1 year following completion of verification monitoring.
- No risk assessment will be necessary.

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PROJECT 61078.02

REVISION: 2
DATE: 12/10/92

ESTIMATED SOIL AND GROUNDWATER REMEDIATION IMPLEMENTATION SCHEDULE
ARCO Station 6041
7249 Village Parkway
Dublin, California

PLATE
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