

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

**ADDENDUM NO. 1
TO
CLEANUP AND ABATEMENT ORDER NO. R9-2009-0073**

**AN ORDER DIRECTING AMETEK INC. TO
CLEANUP, AND ABATE THE EFFECTS OF WASTE AND
SUBMIT TECHNICAL REPORTS PERTAINING TO CORRECTIVE ACTIONS
AT THE SITE OF THE:**

**FORMER KETEMA FACILITY
790 GREENFIELD DRIVE, EL CAJON, CA
SAN DIEGO COUNTY**

The California Regional Water Quality Control Board, San Diego Region (hereinafter San Diego Water Board) finds that:

1. On August 19, 2009, the San Diego Water Board adopted Cleanup and Abatement Order (CAO) No. R9-2009-0073, An Order Directing Ametek Inc. to Cleanup, and Abate the Effects of Waste and Submit Technical Reports Pertaining to Corrective Actions at the Site of the Former Ketema Facility, 790 Greenfield Drive, El Cajon, California.
2. CAO No. R9-2009-0073 requires Ametek Inc. to take corrective actions to investigate, cleanup waste, and abate the effects of waste discharges of all chlorinated solvents, volatile chlorinated chemicals, and metals at the Facility.
3. Except as contradicted or superseded by the findings and directives set forth in this Addendum No. 1 to CAO No. R9-2009-0073, all of the previous findings and directives of the CAO remain in full force and effect.
4. Directive D. 3. of the CAO requires the submittal of a Remedial Investigation and Feasibility Study (RIFS) Report in accordance with Table 1 or the Action Completion Schedule in the RIFS Workplan, whichever is longer.
5. On November 17, 2010 Ametek Inc. submitted a proposal for the separation of the RIFS into two documents. Ametek Inc. also proposed the Feasibility Study (FS) be submitted 120 days after completion of a planned interim remedial measure (IRM) pilot test in order to take maximum advantage of the pilot test results to provide a comprehensive FS evaluation.

6. Addendum No. 1 addresses Directives D. 3. Remedial Investigation and Feasibility Study Report; E.1 Remedial Action Plan Implementation, and Table 1 - Summary of Required Reports and Due Dates.

7. **CEQA EXEMPTION**

The issuance of this Order is an enforcement action taken by a regulatory agency and is categorically exempt from the provisions of CEQA pursuant to section 15321 (a) (2), Chapter 3, Title 14 of the California Code of Regulations.

IT IS HEREBY ORDERED that, pursuant to California Water Code sections 13267 and 13304, CAO No. R9-2009-0073 is amended as follows:

1. **Revise Directive D. 3 as shown below.**

- D. **REMEDIAL INVESTIGATION AND FEASIBILITY STUDY**

3. **Remedial Investigation and Feasibility Study Report** ¹² -

Ametek shall prepare and submit an adequate RIFS RI and FS Reports, in accordance with the schedule provided in Table 1 or the Action Completion Schedule in the RIFS Workplan, whichever is longer. The RIFS Report RI and FS Reports shall contain the following information:

- a. **Remedial Investigation** ¹³ - An assessment of the actual and potential effects of the waste constituents discharged at the Site on ground and surface water quality and beneficial uses including, but not limited to, the following considerations:

- 1) The physical and chemical characteristics of the waste constituents discharged at the Site, including their toxicity, persistence, and potential for migration in water; soil, and air;
 - 2) The hydrogeologic characteristics of the Site and the surrounding area where the waste constituents have migrated or reasonably may migrate;
 - 3) The nature and extent of the discharges (waste types, concentrations and spatial distribution);

- 4) The rate and direction of groundwater flow in both the horizontal and vertical dimension, for all water bearing units potentially or actually affected by the waste constituents;
 - 5) The potential for health risks caused by human exposure to the waste constituents;
 - 6) The potential for damage to aquatic life and wildlife caused by exposure to the waste constituents; and
 - 7) The persistence and permanence of the potential adverse effects.
- b. **Feasibility Study**¹⁴ - A feasibility study adequate to evaluate remedial action alternatives that protect human health and the environment. The feasibility study process consists of the development and screening of remedial action alternatives and a detailed analysis of a limited number of the most promising alternatives to establish the basis for selecting a remedy. The feasibility study shall include, at least, the following information:
- 1) Identification and development of potential remedial or treatment technology alternatives.
 - 2) A screening of the potential remedial or treatment technology alternatives to reduce the number of alternatives subject to a detailed analysis. The study shall include the detailed rationale for the screening process utilized.
 - 3) Cleanup and abatement alternatives that entail discharge of residual wastes to waters of the State, discharges to regulated waste management units, or leaving wastes in place, create additional regulatory constraints and long-term liability and shall be considered in any evaluation of cost- effectiveness.
 - 4) The remedial or treatment technology alternatives identified in b (2) above shall be further subject to a detailed analysis of alternatives. The detailed analysis of each alternative shall be evaluated against the following criteria:

- I. Overall protection of human health and the environment;
- II. Compliance with all applicable and relevant and appropriate requirements as determined by the Regional Board;
- III. Long-term effectiveness and permanence;
- IV. Reduction of toxicity, mobility, or volume of pollutants and contaminants through treatment;
- V. Short-term effectiveness;
- VI. Implementability;
- VII. Cost;
- VIII. State regulatory acceptance; and
- IX. Community acceptance.

When balancing the effectiveness of each alternative using the above criteria, all alternatives must satisfy the threshold criteria (4) I and II. The next 5 criteria, (4) III through (4) VII, are primary balancing criteria, which are less important than the threshold criteria but of equal weight among each other. Criteria (4) VIII and (4) IX are modifying criteria and are given less weight than the threshold and primary criteria.

- 5) A range of appropriate groundwater cleanup levels between background water quality conditions and alternative cleanup levels derived pursuant to Resolution No. 92-49, section 111.¹⁵ Alternate cleanup levels shall not unreasonably affect present and anticipated beneficial uses of waters and not result in water quality less than that prescribed in the Water Quality Control Plans and Policies adopted by the State and Regional Boards.

- c. **Recommended Remedial Alternative** - A recommended alternative for the cleanup or remediation of the waste constituents.

¹² Although this is not a CERCLA Site, an example RIFS can be found in National Contingency Plan section 300.430(e)(9)(iii)
http://edocket.access.gpo.gov/cfr_2003/julqtr/40cfr300.430.htm

¹³ USEPA - Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA;
<http://www.epa.gov/superfund/policy/remedy/pdfs/540g-89004-s.pdf>

¹⁴ USEPA Fact Sheet - The Feasibility Study: Detailed Analysis of Remedial Action Alternatives;
<http://www.epa.gov/superfund/policy/remedy/pdfs/93-55301fs4-s.pdf>

¹⁵ <http://www.ciwmb.ca.gov/regulations/Title27/ch3sb3.htm>

2. Modify Directive E.1. as follows:

E. REMEDIAL ACTION PLAN IMPLEMENTATION

1. Remedial Action Plan (RAP) – Ametek shall submit a RAP to the Regional Board **within 120 calendar days** following submission of a ~~Remedial Investigation and Feasibility Study Report (RIFS)~~, and that RIFS Report shall be deemed complete and accepted and the Regional Board shall be estopped from objecting to or making changes to that report 60 days after that document is submitted to the Regional Board unless otherwise directed in writing by the Regional Board. The RAP shall contain the following information:

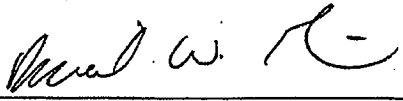
- a. **Implementation Activities** - A detailed description of all activities that are needed or planned to effectively implement the recommended alternative for the cleanup or remediation of the waste constituents described in the RIFS and a schedule for implementation activities and completion of such activities within a reasonable amount of time.
- b. **Action Completion Schedule** - A schedule of actions necessary to implement and complete the cleanup or remediation will be provided prior to implementation of the RAP.
- c. **Monitoring Activities** - A monitoring program capable of demonstrating the effectiveness of the RAP. The monitoring program shall be effective in determining compliance with the cleanup levels and in determining the success of the remedial action measures.

3. Modify Table 1 as follows:

Table 1 - Summary of Required Reports and Due Dates

Directive	Activity	Due Dates
B.2	Site Investigation and Characterization Report	15 February 2010
D.1	Remedial Investigation and Feasibility Study (RIFS) Work Plan	120 days after above (B.2). ¹
D.3. a.	Remedial Investigation (RI) and Feasibility Study (RIFS) Report	120 days after above (D.1). ¹
D.3. b.	Feasibility Study (FS) Report	<u>120 days after completion of the planned interim remedial measure (IRM) pilot test.</u> ¹
E.1	Remedial Action Plan (RAP)	120 days after submittal of the FS above (D.3.b.). ¹

¹The Work Plan and Report shall be deemed complete and accepted and the Regional Board shall be estopped from objecting to or making changes to the Work Plan or Reports sixty (60) days after those documents are submitted to the Regional Board.



David W. Gibson
Executive Officer

12-20-2010
Date