



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

M60050.003132
MCAS EL TORO
SSIC NO. 5090.3

February 24, 2004

Mr. Steven Malloy, Principal Engineer
Irvine Ranch Water District
15600 Sand Canyon Ave
P.O. Box 57000
Irvine, CA 92619-7000

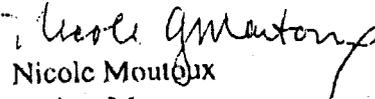
Re: 60% Design Submittal Site 18 and Site 24 Groundwater Remedy, Former Marine Corps
Air Station, El Toro, dated January, 2004

Dear Mr. Malloy:

EPA has reviewed the 60% Remedial Design documents for Sites 18 and 24 at the Former Marine Corps Air Station, El Toro. We have two primary concerns. The first involves finalizing how groundwater from the shallow groundwater unit will be treated and disposed of. The second is related to the siting of principle aquifer well ET-2. Our understanding is that IRWD is having difficulty siting this well due to community concerns. Since the Record of Decision and subsequent groundwater modeling was based on use of ET-2, it is important that we meet to discuss next steps for siting this well.

Please call me at (415) 972-3012 if you have questions.

Sincerely,


Nicole Moutoux
Project Manager

Enclosure

cc: Tayseer Mahmoud, DTSC
John Broderick, Santa Ana RWQCB
Bob Woodings, RAB Co-Chair
Andy Pizskin, SWDIV
Karnig Ohannessian, SWDIV
Marcia Rudolph, RAB Sub-Committee Chair

received
3/1/04

**EPA Comments on the 60% Design Documents for the Irvine Desalter Project
Former Marine Corps Air Station, El Toro, California,
February, 2004**

GENERAL COMMENT

The 60% design document does not differ significantly from the 30% design, in particular relative to the extraction well locations. At this point, EPA's understanding is that Irvine Ranch Water District has been unable to secure a site for principle aquifer well ET-2. Given that the next submittal is the 90% design package, which generally is quite complete, it is important that the Base Cleanup Team meet with IRWD to discuss the current situation with ET-2.

SPECIFIC COMMENTS

1. **Figure 1-2, Process Flow Schematic:** The process flow schematic included in the report varies from the process flow diagram presented in the drawings. The drawings do not include the shallow groundwater unit (SGU) treatment system and the schematic indicates the ET well water will be treated via air stripping whereas the drawings indicate the water will be decarbonated. Please revise the drawings to match the text.
2. **Section 2.10.1, Concentrate Disposal Options, Page 2-51:** The proposed disposal options rely on either the Orange County Sanitation District (OCSD) being willing to accept 180 pounds of trichloroethylene (TCE) per year (based on the values presented in Table 2-21) or the Irvine Ranch Water District (IRWD) being allowed to discharge the TCE directly to the Pacific Ocean under provisions of the Clean Water Act. Failure to receive permission from the OCSD to either discharge the waste stream to the sewer or discharge the waste stream to the ocean under the OCSD's existing National Pollution Discharge Elimination System (NPDES) permit will require a substantial redesign of the groundwater treatment system. It is likely that either the entire shallow groundwater unit (SGU) waste stream would have to be air-stripped prior to reverse osmosis treatment (with subsequent water conditioning to prevent fouling of the reverse osmosis membranes) or the reject stream will require treatment with aqueous phase granular activated carbon. Prior to proceeding to the 90% design, please assure that the OCSD will be willing to accept the reverse osmosis concentrate stream at either a sewage treatment plant or at a sewage treatment plant outfall.
4. **Table 2-21, Estimated Concentrate Discharge Concentrations, Page 2-54:** The weighted average for total toxic organics concentration is incorrect..
5. **Section 3.2, Operations and Maintenance Plan, Page 3-1:** In the Operations and Maintenance Plan to be developed during the 90% design, please assure that procedures are included to track any changes in percentages of TCE rejected by the reverse osmosis membranes as they age.