

11 November 1999

Mr. Glenn Kistner
Remedial Project Manager /USEPA
75 Hawthorne St
San Francisco, CA

Fax: 415-744-1916

re: MCAS El Toro, OU 2B, Sites 2, 17/ Working Draft, Final Record of Decision

Dear Mr. Kistner:

The attached statement is submitted to you, the Remedial Project Manager for the MCAS El Toro Base Closure, and the appropriate USEPA receiver of comment for this ROD. This submission is to provide written documentation of comments and questions and to comply with the general CERCLA protocols for a Final ROD derived from El Toro Base Closure. It is submitted both as a coming from the public at large, and as coming from the El Toro RAB in particular. It is intended that it become part of the Administrative Record.

As we have not had the opportunity to raise this issue at a full RAB meeting, perhaps it would be appropriate for us to move this letter for acceptance at the December 1, 1999 RAB meeting before the full RAB. That would, however, suggest it be distributed to all the members prior to that meeting and the letter's inclusion in that evening's agenda. Your advice on this issue would be in order.

We also expect that, as a matter of record, the USEPA will respond to this letter and the comments therein within 30 days of its receipt.

Yours sincerely,

Charles R. Bennett Ph. D.
Sub-Committee Chair

c: Greg Hurley (Community Co-Chair/ El Toro RAB) by e-mail
Dean Gould, BEC by e-mail
Sharon Fair, DTSC by fax

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November 11, 1999
Comments and Questions regarding:

Working Draft
Final Record of Decision
Operable Unit 2B
Landfill Sites 2 and 17

certainty (rather than speculation) that the beta sources are derived from K 40.

B. Radon 222:

The superficial radionuclide investigation activity planned for Site 17 appears to be only a limited replication of testing that is widely considered to have dubious, ambiguous, and negligible value in remediation. Gross alpha and beta determinations are valid for the survey of a saleable product, such as drinking water, but not for remediations. The RAB recommends that radionuclide speciation, including Rn 222 and Ra 226, be added to the surveying of Landfill Site 17.

The monitoring well near Site 17 (Technical Memo Radionuclides in Groundwater MCAS El Toro, June 1998; Table 1, well 17 DGMW82) has expressed a 1619 pCi/L of Rn 222, which is strong, clear, circumstantial evidence of anthropogenic radionuclide disposal into Landfill Site 17, such as Radium 226 or Uranium 238, for which Rn 222 is a daughter product. The Rn 222 at this location exceeds the MCL by a factor of 5, and the value is threefold higher than other Rn 222 values in groundwater anywhere else across MCAS El Toro groundwater analyses. The MCAS El Toro Rn 222 values also exceed background levels derived from offbase, surrounding monitoring wells. The DoN has hypothesized that the Site 17 Rn 222 is "natural", but has provided absolutely no data to substantiate that position. In fact, from the data that has been released in DoN documentation, it is easier to infer that the base background radioactivity is anthropogenic and not "natural". Based upon the available information, it is not possible to demonstrate whether the elevated onbase background levels of radioactivity derive from Ra 226 paint waste disposal in the landfills and sewage water, or Strontium 90 debris disposal, or depleted Uranium 238 ordnance destruction at Site 1 or "natural" sources.

C. Radionuclides in Site 2 Runoff Water:

The present Working Draft has an important omission in a medium of concern for Site 2. Having omitted mention, the DoN has avoided any need to justify their inaction. This shifts the burden of demanding action to those who note the omission. The RAB recommends that amelioration of contaminated stormwater, including control of radionuclide runoff, be specifically added to the remedy for Landfill Site 2.

The obvious excuse that the DoN is likely to propose for this omission is that the addition of the four foot dirt cap will ameliorate the potential runoff. However, by avoiding any mention of the runoff risk and that the remedy would address that risk, the risk is effectively hidden from review and assessment by skilled reviewers unaware of the complete data base. This is inadequate. A close review for Site 2 of the stormwater and seep water (June ROD, Figures 5-7 and 5-6), and various shallow soil and sediments demonstrates clearly that gross alpha and gross betas are at levels of concern. Specifically, the high gross alphas and betas for Upgradient samples 02SW3 and 02SW1 and the Downgradient 02SW2 on City of Irvine property are of concern. The DoN has hypothesized that the Site 2 stormwater is from a separate or "natural" source, but has, again, provided absolutely no data to substantiate that position. In fact, from the data that has been released in DoN documentation, it is easier to infer that the base runoff radioactivity is anthropogenic and not "natural". These data necessitate increased radionuclide review inclusion in the more thorough survey that has been demanded by the broad critical response to the Draft HRA (May 1999).

The DoN argues that the data show that Site 2 is not leaking radionuclides, as the "upgradient" and "downgradient" levels are essentially the same for the surface samples of soil and water. Even if you accept the validity of this hypothetical interpretation, the DoN omits mentioning

- something that the HRA did not omit, many of these values express elevated values exceeding MCL's for radioactivity. Even if we concede that Site 2 is not leaking radionuclides, the elevated level of radioactivity around Site 2 demonstrates another possible radioactivity source that is further upgradient of Site 2 - Site 1, the Explosives Ordnance Destruction Area.

Site 1 has periodically been reported to have radioactivity sources, including possibly depleted U 238, a known alpha emitter. Site 1 also has the highest detected perchlorate in monitoring wells on the base. Either or both of these classes contaminants have the potential to be found downgradient of Site 1 and have been omitted as possibly impacting Landfill Site 2, eventually.

D. Contaminants of Potential Concern:

The Working Draft of the Final Record of Decision for Landfill Sites 2 & 17 persists in an omission that has existed since the initial Remedial Investigations. Never have radionuclides been identified as Contaminants of Potential Concern (COPC) for incorporation into the Risk Assessments for Sites 2 and 17 (Oct 1999 ROD; Section 6.1). Again, having omitted mention of radionuclides, the DoN has avoided any need to justify their inaction. This shifts the burden of demanding action to those who note the omission, when it evolves to the DoN to justify that radionuclides should not be considered as COPC's. The RAB recommends that a more comprehensive consideration of COPC's, including considerations of radionuclides, be specifically added to the Risk Assessment for Landfill Site 2 and Site 17.

E. Implementation of Institutional Controls:

We have learned with receipt of this Working Draft the following (Oct 1999 ROD; Section 7.2.1.1): "The DON intends to transfer the property containing Sites 2 and 17 by means of a federal agency to federal agency transfer agreement (if the transferee is another federal agency) or by deed (if the transferee is a non-federal agency). The boundaries of the sites and the conditions, terms, and limitations of the land-use controls will be described in the Findings of Suitability for Transfer (FOSTs) and recorded in the MOU and/or deed." What is the controlling code, regulation, legislation, or judgment by which the transfer to a non-federal agency and what are the implications on any future institutional controls?

"Hasty marriage seldom proveth well."
(William Shakespeare)

General Statements:

1. The proposed narrow remedy of simple soil caps for these two Landfills may be too simple. The RAB part of the Community has earlier expressed concerns that the proposed remedy will be found inadequate after the planned further study. Moreover, this "Working Draft" has enough gaps and completely new plans to question whether even the planned study will be adequate. Fortunately, at the least, the DoN ultimately acknowledged the need for a more comprehensive investigation in this area of the former MCAS El Toro Base, as required by the Regulatory Agencies and as requested by the impacted Community.

2. The RAB has expressed high concern frequently during the RAB process regarding Radioactivity at El Toro about:

- 1) the use and misuse of the term "Background" in text,
- 2) the lack of proper protocols and procedures for the measurement of "Background" onbase,
- 3) failure to even consider measurements of "Background" offbase, as would be required by published DHS Guidelines for background determinations,
- 4) attribution of survey method (i.e. Geiger counter and gross alpha and gross beta) results in attributing radioactivity sources, but with no speciation reference to radionuclide sources from natural sources,
- 5) attribution of survey method (i.e. Geiger counter and gross alpha and gross beta) results in attributing radioactivity sources, but with no speciation reference to non Base related activity sources, such as agriculture.

These sorts of hypothetical attributions can not be accepted without question, they have to be validated by methods deemed acceptable to those skilled in the art. More seriously, with this "Working Draft", we have it demonstrated that, not only are these hypothetical attributions being accepted the DoN, the proposed remedy shows they are acting upon their hypotheticals.

3. Is there a risk, or is there a potential, or is there a likelihood, or is there a virtual certainty that two DoN contaminated Landfills will be transferred to the County of Orange before a full and complete assessment of the risks associated with these Landfills and the land surrounding them has been completed, and reported to the County, and all other stakeholders of standing?

Specific Items of Concern:

A. Strontium 90:

Site 2 has had a number of radionuclides added to its monitoring plan, which is a movement in the right direction. However, the HRA has made specific reference (Draft Historical Radiological Assessment, May 1999; Sections 6.1.4.1, 6.2.1.2.1 and Table 5.2) to the potential for the use of radioactive materials that included Sr 90, a known beta emitter, on the base. Moreover, the Draft ROD for Site 2 has demonstrated the presence of gross beta well in excess of the acceptable MCL in water samples in the vicinity of Site 2 (June ROD or Draft Final Record of Decision Operable Unit 2B Landfill Sites 2 & 17, June 1999; Figures 5-7, 5-8, 5-4, 5-5). Thus, the RAB recommends that Sr 90 be added to any planned water (groundwater, seep water, and/or stormwater) monitoring scheme, unless it can be demonstrated with