

DEPARTMENT OF HEALTH SERVICES

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February 13, 1998

Commander
Attn: Tamy Johniken, Code 56MC.TJ
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Commander:

Attached please find the California Department of Health Services' (DHS) comments on the Draft Work Plan Radiological Status Survey Report for Marine Corps Air Station El Toro. As an Agreement State with U.S. Nuclear Regulatory Commission DHS has the charge of protecting the citizens of California from undue exposure to radiation. DHS provides consultative guidance to the California Department of Toxic Substances Control on radiological matters and reviewed this document at their request.

If you have any questions or need further information regarding this review, please contact Ms Deirdre Dement at (916) 324-1378.

Sincerely,

A handwritten signature in cursive script that reads "Darice G. Bailey".

Darice G. Bailey
Senior Health Physicist
Division of Drinking Water and Environmental Management

Enclosure

cc: Mr. Tayseer Mahmond
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Commander
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cc: Mr. Joseph Joyce ✓
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Mr. Glenn R. Kistner
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Department of Health Services

Review of Draft Document, *Final Radiological Status Survey, El Toro Marine Corps Air Station, California, December 23, 1997*

February 11, 1998
DTSC Resource Planning Form # 374

The following comments and questions are in response to the request from Mr. Tayseer Mahmoud of the Department of Toxic Substances Control to review the draft document *Final Radiological Status Survey, El Toro Marine Corps Air Station, California*, dated December 23, 1997.

General Comments:

1. The historical data presented in this document remain minimal and sketchy, so that it's unclear that all areas of the site have been properly evaluated for radiological concerns. Any radiological licenses or permits issued or terminated at El Toro should be provided for review.
2. DHS recommends the use of NRC Regulatory Guide 1.86 for surface contamination release limits instead of using the draft NUREG-1500. (See Specific Comment number 3.)
3. Data Quality Objectives (DQOs) should be added to the workplan to ensure that the data acquired from this survey will be of sufficient quality for decision making. The DQOs should include the number of measurements and samples needed to provide a statistically based survey/sampling plan, the minimum detectable activities (MDA) or minimum detectable concentrations (MDC) of the survey instruments and the lower limit of detection (LLDs) of the laboratory detectors required to meet the release criteria, etc.
4. Laboratory analytical and QA/QC procedures should be included for review.
5. Calibration procedures and data (i.e., dates, calibration source, activity of the source, etc.) should be provided for each instrument, including the efficiency (cpm/dpm) response of each instrument with its calibration source information.
6. The General Work Procedures do not provide enough detail to the surveyors to ensure that the readings and samples are taken correctly for recording and analysis.

Specific Comments:

1. Page 5, Section 1.3. The historical information does not appear to be detailed enough. A listing of all buildings and activities on site, including the dates of specific uses of each building and area on site, and a map of the entire site should also be provided.
2. Page 6, Section 2.1. "Class 1 Final Survey" and "Class 2 Final Survey" should be defined and explained in detail, including how the different areas were designated as Class 1 or Class 2. These classifications should also be added to Sections 6.1 through 6.17 to further identify the type/extent of survey required for each area.
3. Page 7, Section 3.2. The values of 1620 dpm/100 cm² and 324 dpm/100 cm² representing the equivalent dose rates of 15 and 3 mrem/year respectively for Ra-226 and its daughters appear to have been taken from Table B-1 of NRC draft document NUREG-1500. DHS understands that the validity of some of the numbers listed in that draft table is in question. DHS proposes using Regulatory Guide 1.86 as the release standard in this situation at this time.
4. Page 7, Section 3.3. Explain how the action levels of 1 ½ times background and 100 cpm above background were determined and how they relate to the release criteria.
5. Page 9, Section 4.1. The number of background measurements should not be based on the background levels anticipated versus the target level assumed to be appropriate, but on an assessment of the number of measurements needed to provide a statistically based average background reading for the areas being surveyed.
6. Page 11, Section 6.0.1.4. Explain how the 25 cm high grid size was determined for the walls, and to what extent or height from the floor the walls are to be surveyed.
7. Page 12, Section 6.1.2. Please provide information on how the number of one-minute readings to be taken was determined. (See General Comment number 3.)
8. Page 12, Section 6.1.7. Laboratory procedures should be provided for DHS review, and DQOs should be developed to ensure that the laboratory has the capabilities to provide quality data for decision making.

Page 3 of 3. DHS 2/11/98 review of draft document, *Final Radiological Status Survey, El Toro Marine Corps Air Station, California.*

Specific Comments: (Continued.)

9. Pages 18 and 19, Sections 6.13.4, 6.14.3 and 6.15.4. Explain how these areas are to be traced, and how the plumbing and ventilation pathways are to be located for tracing.

10. Pages 19 and 20, Sections 6.16 and 6.17. It is not clear from the instructions that μR readings from all areas are to be recorded. It appears that only readings evaluated as greater than $1 \frac{1}{2}$ times background are to be recorded. DHS recommends that all instrument readings from all areas should be recorded.