



Steve Dean

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To: Glenn Kistner/R9/USEPA/US@EPA
cc:
Subject: El Toro landfill memo

September 24, 1999

MEMORANDUM

SUBJECT: Radium disposal in MCAS -El Toro landfills

FROM: Steve M. Dean (SFD-8-B)
Superfund Technical Support Team

TO: Glenn Kistner (SFD-8-2)
Navy Section

I have completed my review of the MCAS - El Toro Historical Radiation Assessment document and from it I conclude that radium 226 contaminated waste is probably residing in several of the landfills on base. Illumination devices containing radium paint were commonly used in military equipment of all kinds up through the 1960's. Much of this equipment has found its way into landfills at virtually all of the military installations in operation during WWII and Korean War eras. Please keep in mind that any municipal landfill in operation prior to WWII will also contain radium paint from commercial devices such as clocks and watches which were produced during that era.

Unfortunately the resources required to find and to ultimately recover the radioactive contaminated debris make a removal action impractical given the limitations of current available technology. Other issues also need to be considered, such as, the potential reuse of the impacted area, danger to personnel performing the excavation, and the potential for uncontrolled release other toxic contaminants during the removal action.

I recommend that radium 226 and radium 228 be added to the list of analytes for water samples taken from monitoring wells around the landfills to insure that these radionuclides are not migrating beyond the landfill site boundaries. Fortunately the radium salts commonly used for luminous dials were not very water soluble and thus typically do not migrate through most soils. However, groundwater monitoring well sampling should be included in the overall institutional control strategy for the MCAS landfills.