

TA 33

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**M E M O R A N D U M**

**TO:** NMED and EPA Steam Team  
File

**FROM:** *dy* Steve Yanicak, LANL POC

**DATE:** July 7, 1997

**SUBJECT:** Recommendations for FU-3 PRSs 33-002 (a, b, c, d, e); MDA K, RFI Report dated September 29, 1995

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**PRS 33-002 (a) MDA K:** MDA K vicinity has surface soil (0 - 6") and deep subsurface (>100') <sup>3</sup>H contamination. The septic tank (TA-33-93) has contamination of RCRA metals (Pb, As, Cd), organics (Bis (2-ethylhexyl) phthalate), and <sup>3</sup>H. A Risk Assessment (RA) using RESRAD was performed resulting in 11.9 mrem/yr (well below the 30 mrem/yr DOE EDE). Because <sup>3</sup>H was logically the main driver for risk, the RA at MDA K resulted in a no obvious threat to HH & E using an industrial land use scenario.

**Recommendations:**

- 1 The DOE OB recommends that surface water pathways during storm events be included in the RA. There is not enough data to include a ground water pathway, but there have been <sup>3</sup>H anomalies at Springs 9a and Doe (elevated <sup>3</sup>H values were found before 1995). If a RA, with the surface water pathway, finds the total rad dose at < 30 mrem/year (it probably will), the DOE OB would concur with the conclusions of **Section 4.1.4 (Conclusions and Recommendations)** with the following exceptions:
  - 1a The DOE OB would recommend that the shallow soil in the proximity of MDA K, and the deep boreholes, especially 33-1231, be monitored at least annually to record the expected decrease of <sup>3</sup>H concentrations.
  - 1b The DOE OB would recommend that Septic tanks/sumps, should be either cleaned in placed and grouted, or completely removed, with all associated pipes, drain lines, and clay drain fields.
  - 1c Since no other RCRA constituents were found in the deep boreholes in the vicinity of MDA K, the DOE OB would advise against the Phase 2 placement of additional deep boreholes in order to chase down a <sup>3</sup>H plume which should be decreasing over time; the source of the <sup>3</sup>H ceased in 1990, and Building 33-86 is currently scheduled for D & D. The Site-Wide Hydrogeological Project might be better able to address questions of hydrological connectivity between saturated zones below TA-33.



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**PRS 33-002 (b) Sump TA-33-134:** The contaminants of concern here are Cd and <sup>3</sup>H. An RA was performed using RESRAD resulting in 11.3 mrem/yr (well below the 30 mrem/yr DOE EDE)

**Recommendations:**

- o The DOE OB concurs with the conclusions of **Section 4.2.4 (Conclusions and Recommendations)** with the following exceptions: See recommendation 1b for PRS 33-002(a).

**PRS 33-002 (c) Sump TA-33-133:** There are no contaminants of concern here above SALs. <sup>3</sup>H and Pu are slightly elevated above TA-33 surface soil UTLs. No RA was performed for this PRS.

**Recommendations:**

- o The DOE OB concurs with the conclusions of **Section 4.3.4 (Conclusions and Recommendations)** with the following exceptions: See recommendation 1b for PRS 33-002(a).

**PRS 33-002 (d) Outfall 04A147:** The contaminants of concern here are <sup>3</sup>H, low concentrations of PCBs (< 1mg/kg) and possibly Hg (from unvalidated data).

**Recommendations:**

- o Although no RA was performed and LANL recommends this PRS for NFA, the DOE OB recommends that this outfall either be plugged in-place, or completely removed, with all associated pipes. In addition, due to slightly elevated COCs still in-place below the pipe, storm water should probably be routed past this outfall.

**PRS 33-002 (e) Outfall associated with roof drain to TA-33-86:** The contaminants of concern here are PAHs from the asphalt roof and <sup>3</sup>H detected slightly above TA-33 UTLs. The source of the PAHs will be eliminated when Building 33-86 is removed during D & D activities.

**Recommendations:**

- o Although no RA was performed and LANL recommends this PRS for NFA, the DOE OB recommends that this outfall either be plugged in-place, or completely removed, with all associated pipes.

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