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M E M O R A N D U M

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From: Danny Katzman
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Subject: Comments on the Operable Unit 1071 RFI Work Plan

Date: October 30, 1992

The Hazardous and Radioactive Materials Bureau (HRMB) Agreement in Principle (AIP) personnel have completed their review of the Operable Unit (OU) 1071 RCRA Facility Investigation (RFI) Work Plan. This memo contains HRMB's questions and concerns regarding the Work Plan. We are requesting through your office that DOE/LANL respond to our comments in writing rather than including their response in the one prepared for EPA. Part of the HRMB's mission under the AIP is to insure that environmental restoration efforts are conducted in compliance with state regulations. This goal would be compromised if DOE/LANL were to merge its response to our comments with those directed to EPA Region 6.

General Comments

Sediment sampling methodology described in the Work Plan is generally vague in that it does not state the depth at sediment samples will be taken or the specific grain size(s) that will be targeted for each site. Sediment sampling at sites (drainages) that are potentially radioactively contaminated should target silt- and clay-sized sediment because of the adsorptive properties of the finer-grained particles. The primary objective for sampling in drainages should be to assess the presence of contaminants available for transport offsite via ephemeral discharge in drainages. This can only be accomplished by knowing the actual concentration available for transport. Bulk samples that



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contain a significant amount of coarse sediment will not provide an accurate assessment.

Wording in the Work Plan suggests that phased investigations **may** occur in the event that "Stage I data show that contaminants are present above action levels". Unless Stage I investigations are adequate for confidently determining the vertical and horizontal extent of contamination, Phase II investigations will be required.

The decision logic of estimating mean contaminant levels over an exposure unit has been suggested in this and several other of the Work Plans reviewed to date by the AIP staff. Our understanding is that Subpart S does not allow for the practice of contaminant "dilution" in this manner. Please explain.

Most or all of the channel sediment sampling plans propose to collect samples "as close to the outfall points as possible". This methodology for characterizing the outfall areas and associated drainages does not provide enough certainty that contaminants, if present, will be found. It is not necessarily the case that contaminants are still located in sediments immediately below the outfall points. Contaminated sediments may have moved some distance down-channel, and could be buried beneath younger sediments.

*Is Phase II
dependent on
results of this
phase of investigation?*

Statements like "no contamination is expected to be found" are potentially misleading and suggest a bias toward expected results of the sampling, and could be interpreted to affect early phase investigations.

It is understood that the pending HWSA Permit modification will correct the SWMU list to include only those sites that are actually SWMUs by definition. It is suspected that underground storage tanks (USTs) used for petroleum products will fall out of the HWSA Permit. OU 1071 contains a number of USTs, as do other locations with the Lab boundary or in the Townsite. Investigations and Voluntary Corrective Actions (VCAs) of USTs should be done pursuant to NMED's Underground Storage Tank Bureau (USTB). Registration and closure of USTs should be under the oversight of the Prevention/Inspection Program of the USTB. Confirmed or suspected releases should be reported to the Remedial Action Program of the USTB for oversight of investigation and corrective actions. Questions regarding these matters should be referred to Mr. Tony Moreland of the USTB at (505) 827-0214.

Specific Comments

2.2.3 p4 This section suggests that a given sample size (N) provides a degree of confidence (P) that not more than a certain percentage of the site exceeds action levels, and that these results will lead to the conclusion that no contamination exists at that site. Please cite and provides selected passages from peer reviewed journal article(s) where this type of statistical calculation has been used for determination of appropriate sample-populations for a site.

- This appears to state that NFA may be proposed after these standards are applied.
Logical and judgmental samples are proposed.

5.1.1 p1 There is not enough information provided in the Work Plan regarding final dates of the handling of RCRA wastes to determine if the Western Steam Plant qualifies as a SWMU. If it was in service until Spring 1990, and maintained the same practice since operations began, then it is not a SWMU, but a non-HSWA RCRA unit.

Q: If sites are removed from the SWMU list, will they still appear in RFI work plans?

5.1.6.2.1 p1 The text in the key in figure 5-3 is misleading and should explain that sampling points shown below the outfalls and in pavement drainage areas represent generalized sampling areas and also do not represent the actual number of samples to be taken. At what depth will the samples be taken? Will the samples represent composites of shallow cores?

Future figures

f5-4 The table does not provide a key explaining what the asterisk (*) represents.

5.2.2.1 p3 Samples taken at SWMU 0-033 should also be analyzed for volatile organic compounds, since the full range of potential contaminants is unknown.

VST and associated stuff

5.2.5.1 p2 Wording in this paragraph suggests that field screening for organic vapor constitutes Level III/IV data. Field screening is not Level III/IV data.

Also appears to suggest that NFA can be proposed from these data.

5.2.6.3.2 p2 It is unclear whether samples taken from the bottom of cores that penetrate to the fill/tuff interface will actually be sampling fill or tuff. It is recommended that, at a minimum, the tuff be

sampled in these cases. This concern applies to several of the proposed sampling plans in the Work Plan.

This will see some indices tuff.

✓ 5.4.4 p2 The Work Plan does not provide enough information regarding the practice of using mean concentrations for contaminants over exposure units. The procedure does not appear to be acceptable.

Investigations should address contaminated spot, not averages.

5.5.1 p5 Cleanup levels were determined by the DOE's LAO for decontamination at SWMU 0-017. It is stated that cleanup that occurred in 1977 achieved those levels. What were the actual levels that were used?

5.5.4 p1 How is it proposed to decontaminate-in-place the contaminated pipe?

✓ 5.5.4 p2 There should be verification sampling at actual locations that were found to be contaminated in the previous investigation.

Does the previous documentation give any indication of specific areas along the line where the pipe was found?

✓ 5.5.6.3.2 p1 This sampling plan suggests that if field screening does not indicate the presence of contamination, only a single sample will be taken, and that it will be collected from the upper-most tuff interval. It is recommended that at least two samples be taken from each core (one in the uppermost tuff interval and one in the finest-grained portion of the fill material) in the event that field screening does not detect the presence of contamination.

** In addition this activity is just done at locations where remedial action is not as verified of prev. decont sites*

5.6.6.2.1 p1 Sampling at only two of the sludge-drying beds does not constitute an adequate Phase I, Stage I investigation. Results from the Stage I sampling plan would not be considered adequate data for potential consideration for NFA for this SWMU.

Why just the 2 oldest?

5.6.6.2.1 p1 The figures (e.g. 5-24) should show exact, or closer approximations, of sampling points that will correspond to numbers of proposed sampling points in the text.

If actual location is to be determined what will determine be based on?

5.8.4 p2 There is no reason to believe that contaminants will be uniformly distributed, given the presence

of run-off channels and certain variability in infiltration rates and amounts across the irrigated fields. Sampling should be comprehensive and especially target drainages and other low-lying areas. Stage I investigations at SWMU Aggregate 0-E are not adequate for determining that no contamination exists and that results from the investigation could warrant NFA nomination.

None of section even makes sense to me.

5.8.6.2.1 p2

Again, it appears that none of the core locations are proposed for drainages and low-lying areas on the golf course or athletic field. Are samples at the "tuff contact" collected above or below the contact?

Appears to on target spray head area

5.13.6.2.1 p1

Soil gas and radiological surveys are not useful for guiding sampling locations for metals and semi-volatiles. A judgmentally-based set of sampling locations should be chosen in order to address the possibility of metals and semi-volatile contamination.

The types of waste that may be in trenches is unknown

5.14.2.1 p3

Neither Laboratory surveillance documents nor general Laboratory surveys for organics are adequate for use in determining that no releases have occurred from any specific SWMU.

** Ask Biv... Maybe volatiles should be sampled at the subsurface*

5.14.6.2.2 p3

Since no adequate documentation exists as to which hazardous materials were used at this SWMU group, analyses should also target the full suite of volatile organic compounds.

** at least some of the samples at subsurface location*

5.15.6.3.1 P1

Some core samples should be taken on the mesa top for verification, independent of where surface sampling and radiological screening indicate surface contamination.

This is because surface may be clean whereas there may be contam at depth.