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October 30, 1992

Mr. Jerry Bellows, Manager
Department of Energy
Los Alamos Area Office
528 35th Street
Los Alamos, NM 87544

RE: AIP Review of Operable Unit
1071 RFI Work Plan

My Agreement In Principle (**AIP**) staff have reviewed the RCRA Facility Investigation (**RFI**) Work Plan for Operable Unit (**OU**) 1071. General and specific comments on the Work Plan are enclosed. Please address your response to these comments to this office. If you have any questions regarding technical aspects of the memo, please contact Danny Katzman of my staff at 827-4313 or 665-7127.

Sincerely,

Kathleen M. Sisneros

Kathleen M. Sisneros, Director
Water and Waste Management Division

KMS:dk

Enclosure

cc: Neil Weber, Chief, DOE Oversight
Barbara Driscoll, EPA Region 6
File, LANL, Red '92

cc w/o enclosure:
Benito J. Garcia, Chief, HRMB
Bruce Swanton, Program Manager, DOE Oversight/LANL
Ed Horst, Manager, RCRA Enforcement
Barbara Hodistchek, Program Manager, RCRA Permits

a: wp/1071kat

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M E M O R A N D U M

To: Kathleen M. Sisneros, Director
Water and Waste Management Division

Through: Benito J. Garcia, Chief
Hazardous and Radioactive Materials Bureau
Bruce Swanton, Manager
DOE Oversight Program

From: Danny Katzman
HRMB/DOE Oversight Program

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

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.

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.

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.

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?

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.

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.

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.

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.

5.5.1 p5 Cleanup levels were determined by the DOE's LAAO 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.

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.

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.

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.

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.

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?

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.

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.

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.

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.