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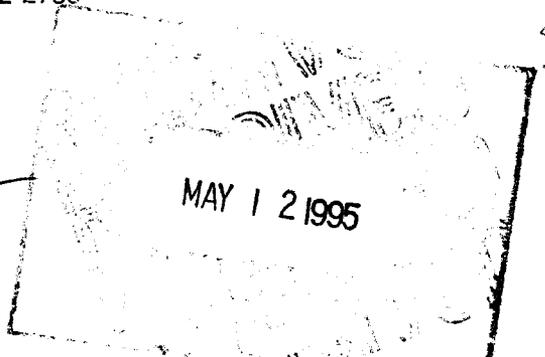
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MAY 08 1995

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MAY 12 1995

Mr. Theodore J. Taylor  
Program Manager  
Department of Energy  
Los Alamos Area Office  
Los Alamos, NM 87544

Re: Draft Guidances for Screening Assessment Methodology and Evaluation, and Cleanup of Polychlorinated Biphenyls (PCBs) Los Alamos National Laboratory (NM0890010515)

Dear Mr. Taylor:

Enclosed are comments from the Environmental Protection Agency (EPA) regarding the draft position papers entitled, "Guidance for Screening Assessment Methodology" and "Guidance for Evaluation and Cleanup of Polychlorinated Biphenyls (PCBs)" both dated February 22, 1995. EPA has also incorporated comments for the New Mexico Environment Department on the proposed "Guidance of Evaluation and Cleanup of Polychlorinated Biphenyls (PCBs)".

Should you have any questions on these comments, please contact Ms. Barbara Driscoll at (214) 665-7441 or Ms. Maria Martinez at (214) 665-2230.

Sincerely,

*WK Honker*

William K. Honker, P.E., Chief  
RCRA Permits Branch

Enclosure

cc: Mr. Benito Garcia ✓  
New Mexico Environment Department  
Mr. Jorg Jansen  
Los Alamos National Laboratory, MS M992

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## Comments on LANL Position Papers

### Guidance for Screening Assessment Methodology

**General comment:** The screening approach does not address potential ecological effects. This fact can greatly underestimate the potential risk especially since it will be used to establish no further action (NFA).

#### 1. Figure 1. Decision logic for screening assessments.

Number 3 on the flowchart indicates that a chemical may not be considered a chemical of concern (COC) if the constituent concentrations do not differ between "blanks" and site samples. It appears that the question asked should be more from a quality assurance standpoint than with the purpose of defining COCs. That is, a better answer to the question asked would be if the constituent concentrations should be quantified or considered as a positive result. See Risk Assessment Guidance for Superfund (RAGS) Part A, Section 5.5 for further details.

The decision diamond that compares site data to background may need more clarification especially since it is in part the basis to conclude whether a constituent is a COC. Additionally, two important policy papers that provide essential information for this decision step have not been finalized by DOE (**Making Comparisons with Natural Background Concentrations of Metals for the Los Alamos National Laboratory Environmental Restoration Project**) or reviewed by EPA (**Evaluating the Human Health Significance of Polynuclear Aromatic Hydrocarbons at the Los Alamos National Laboratory**).

Number 4 on the flowchart indicates that only after an action level is exceeded will a chemical constituent be considered a COC. Does this step incorporate additive effects of all chemical constituents present? This question is important especially for sites with multiple constituents.

#### 2. Page 4. Top of page.

It is stated that calculated SALs will be used for both surface water and ground water when no MCL value or state ground water is available. These SALs are said to be more stringent than required by NMED, according to LANL, since New Mexico has not designated surface waters to be evaluated as drinking water sources. It is important to note that NMED has passed water quality standards as of January 23, 1995. These standards include surface water designations such as public water supply. Furthermore, consideration of federal water quality criteria, including human health criteria, is suggested.

### 3. Item 6.

This approach would be adequate for background concentrations that have been reviewed and concurred by EPA.

### 4. Page 6. Section 2.3 Derivation of SALs When Noncarcinogenic Toxicological Data Are Lacking

It is necessary to understand the specific extrapolating approach that LANL would use to calculate interim conservative estimated values where there is no chronic toxicological information. That is, will uncertainty factors be incorporated into the calculation? If so, what magnitude? Additionally, will the derived values be identified as estimated values?

### 5. Section 3.1 Rationale for Deriving SALs for Radioactive Constituents in Soils

EPA will be proposing a radiation cleanup standard in a new rulemaking. The new standard is an overall dose limit of 15 millirem (mrem) per year in excess of background radiation assuming that all sites are cleaned up to unrestricted release. This cleanup standard will apply to federal facilities, as well as, Nuclear Regulatory Commission and Agreement State licensees. It is the Region's understanding that DOE has agreed with this cleanup standard and is currently applying the 15 mrem per year standard to decommissioned sites.

It is important to understand exactly how DOE has set the limit of 100 mrem/yr as a maximum acceptable radiation dose to individuals in the general public. This approach, according to the issue paper takes into account all contaminant pathways, radionuclides and exposure sources. It would be beneficial to review exactly how this number was derived, or DOE should provide documentation if this number is a DOE Order or directive.

Additionally, RAGS Part A (Chapter 10) describes how risk due to radioactive compounds should be evaluated. Essentially, RAGS recommends that the approach used to evaluate risk to chemical constituents be used, with modifications, to estimate risk to radioactive compounds. Perhaps, in addition to the above information, LANL can provide a comparison of the two approaches. This will aid EPA in evaluating whether the DOE approach is in accordance, at least in principle and conservatism, with the EPA approach.

### Guidance on Evaluation and Cleanup of PCBs

1. 1.0 Introduction - LANL might note in the introduction that this document is to assist, but does not replace the need to refer to the TSCA PCB regulations found at 40 C.F.R. §761.

**2. 2.0 Background** - TSCA recommended the insertion of more "common trade names". LANL may wish to choose some from this list:

Arcchlor B	Inclor	Eucarel
ALC	Inerteen	Fenclor
Apirolio	Keneclor	Hyvol
Asbestol	Kenneclor	Elemex
ASK	Magvar	Santovac 1 and 2
Askarel	MCS 1489	
Adkarel	Nepolin	
Capacitor 21	No-Flamol	
Chlorextol	Nonflammable Liquid	
Chlorinol	Phenoclor	
Chlorphen	Pydraul	
Clorinol	Pyralene	
Diaclor	Pyranol	
DK	Pyroclor	
Dykanol	Saf-T-Kuhl	
EEC-18	Santotherm	

**3. 3.0 Summary of Regulations....** - Suggest the following additional language:

There are five laws impacting activities relating to PCBs. These are the Toxic Substances Control Act (TSCA), the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), the Safe Drinking Water Act (SDWA), and the Clean Water Act (CWA). Of the five statutes, TSCA provides the basis for the most comprehensive of PCB regulations.

**4. 3.1 TSCA Regulations - 1st paragraph**

Suggest adding the following:

The TSCA PCB Spill Cleanup Policy does exclude from application of the final numerical cleanup standards certain spill situations: spills directly into surface water, drinking water, sewers, grazing lands, and vegetable gardens.

The investigation of all PCB spills (See the definition of spill found at 40 C.F.R. § 761.123) must include the identification of the source of the spill (i.e., to determine the PCB concentration spilled) and the occurrence (i.e., pre-TSCA or post-TSCA [April 18, 1978]; see Recordkeeping Requirements at 40 C.F.R. § 761.125.

5. 3.1 TSCA Regulations, 2nd paragraph, page 2 -

Suggest changing the word "regulations" to "policy" in the first 2 sentences: "TSCA PCB Spill Cleanup Policy applies to spills that occurred on or after May 4, 1987, the effective date of the policy. The policy establishes PCB cleanup levels in soil, and on solid surfaces, based on concentration of PCBs spilled onto soil and the use of the site upon which the spill occurred."

Suggest adding the following to this paragraph after the 1st sentence, "TSCA PCB Spill Cleanup Policy applies to spills that occurred on or after may 4, 1987, the effective date of the policy." "EPA Region 6 encourages discussion of cleanup levels for those spills that occurred prior to the TSCA PCB Spill Cleanup Policy effective date of May 4, 1987. Spills which occurred before the effective date of this policy are to be decontaminated to requirements established at the discretion of EPA, usually through its regional offices."

Suggest adding the following to this paragraph after the sentence, "The most stringent spill cleanup level for soil is 10 parts per million (ppm)." "Regional Administrator can require more stringent cleanup requirements for any spill given the site specifics."

6. Section 3.1, Paragraph 2, page 2 - TSCA PCB spill cleanup regulations apply to spills that occurred on or after May 4, 1987, the effective date of the regulation. How will LANL decide whether the PCB contamination at a particular site is the result of a release or spill prior to May 4, 1987?

7. 3.3 CERCLA Guidance on Remedial Actions for Superfund Sites with PCB Contamination, page 3 -

Suggest adding the following to this paragraph as the last sentence: "Note that the future change of the land use could prompt further remedial action (i.e, that is if the land use changes from industrial to residential; cleanup from 25 ppm could be changed to 10 ppm)."

8. The document is confusing in that it restates the PCB regulations under TSCA do not supersede other program requirements such as RCRA. It also restates that whenever RCRA would require a more stringent action or cleanup level it would take those requirements into consideration. Despite this, it appears that LANL is proposing to use values out of the TSCA regulations for their action levels and cleanup goals. The health-based action level calculated under Subpart S is more conservative than the most conservative TSCA PCB standard. LANL should provide clarification on this issue.

9. The derivations of action levels should incorporate ecological risk considerations. The PCB regulations include these considerations under Subpart G(3)(b) in which circumstances may require more stringent cleanup levels. It appears that LANL has not included these considerations in their proposed action and cleanup levels. Consideration of ecological factors may considerably drive down the values proposed.

10. In this paper, action levels were derived using a risk level of  $10^{-4}$ . PCBs are a class B2 carcinogen and as such should be evaluated at a risk level of  $10^{-6}$  to be in accordance to Subpart S.

11. How will cleanup goals be set at sites with multiple constituents, including PCBs?

12. This paper only addresses cleanup levels for PCBs in soils, how will other media be addressed?