

LANL TA-55

~~CONFIDENTIAL~~

**MEMORANDUM**

To: Gedi Cibas, WWMD  
From: *SY* Steve Yanicak, LANL POC, DOE OB  
Date: December 23, 1997  
Subject: Management of Certain Plutonium Residues and Scrub Alloy Stored at the Rocky Flats Environmental Technology Site: Draft Environmental Impact Statement  
NMED File No: 1131 ER

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Attached is the DOE Oversight Bureau's review of the subject document.

If you have any questions, please contact Tim Michael at 827-1536.

SY:tlm

Attachment

cc: John Parker, Chief, DOE Oversight Bureau



DOE Oversight Bureau Review of  
“Management of Certain Plutonium Residues and Scrub Alloy Stored at the Rocky Flats  
Environmental Technology Site: DEIS”  
NMED File No: 1131 ER

The Environmental Impact Statement (EIS) titled, “Draft Environmental Impact Statement on Management of Certain Plutonium Residues and Scrub Alloy Stored at the Rocky Flats Environmental Technology Site” considers alternatives for management of approximately 93,000 lbs of plutonium residues and 1540 lbs of scrub alloy located at Rocky Flats. The residue contains approximately 5,700 lbs of plutonium and the scrub alloy contains about 440 lbs of plutonium.

The EIS identifies three alternatives:

- (1) *No Action* If certain requirements can be met, stabilize the materials for safe storage at Rocky Flats for the indefinite future or for disposal.
- (2) *Processing without Plutonium Separation* Conduct more extensive operations at Rocky Flats to process the material for disposal.
- (3) *Processing with Plutonium Separation.* Remove most of the plutonium from the plutonium-bearing materials in preparation for disposal or other disposition.

The “proposed action” is to process the plutonium residues and scrub alloy to prepare them for disposal as transuranic waste or for other disposition. The proposed action could be accomplished by either Alternative 2 or Alternative 3, or by some combination of those alternatives.

After plutonium separation the remaining material would be disposed at the Waste Isolation Pilot Plant. Plutonium resulting from separation processes would be placed in storage pending final disposition in accordance with decisions resulting from the Surplus Plutonium Disposition Environmental Impact Statement.

The waste processing steps that might be done at Los Alamos National Laboratory (LANL) under Alternative 3 include salt distillation for separation of plutonium oxide from pyrochemical salts and a water leach process for direct oxide reduction salts. These processes would take place in Building PF-4, TA-55 (the LANL Plutonium Facility). No construction of new facilities would be required but existing facilities might need to be modified. Processing would generate high-level, transuranic, and low-level waste, and separated plutonium. The possible range of end-process quantities would be: transuranic waste, 0-2700 drums; low-level waste, 0-6100 drums, and separated plutonium, 0-1069 kg.

Since the “proposed action” is a combination of Alternatives 2 and 3, it is unlikely that all of the possible waste processing will be conducted at LANL. However, if any processing is done at LANL, waste containing plutonium will be transported in New Mexico. Waste transport standards should be at least as protective as for other transuranic waste. Since most of LANL’s waste processing capability has been committed to other programs, additional impacts at TA-55 (the Plutonium Facility) and TA-50 (the Liquid Waste Treatment Facility), should be considered. Also, since low-level radioactive waste could be generated, availability of storage at the Low Level Waste Disposal Facility at TA-54 should be considered.