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MEMORANDUM

COPY

TO: Robert "Stu" Dinwiddie, PH.D., Mgr., HRMB, RCRA Permits  
THROUGH: Glenn Saums, Mgr., SWQB, PSRS  
FROM: Barbara Hoditschek, Env. Spec., SWQB, PSRS  
DATE: June 6, 1997

DIANNE,  
FYI, JK.

SUBJECT: Disposal by LANL of Asphalt from TA 54, Area L to the head of Sandia Canyon

On July 22, 1994, a letter from HRMB, addressed to Joseph C. Vozella, indicates that the asphalt pad from TA 54, Area L, was determined as contaminated material and if removed was required to be disposed of as a hazardous waste. Subsequent discussions held by HRMB with LANL further indicate that HRMB would allow the reuse of the asphalt as fill material in the immediate area of the construction site at TA 54. Neither of these two scenarios were applied by LANL.

In a May 29, 1997, letter to HRMB, LANL attempts to justify why inclusion of the asphalt material from TA 54 as fill material at the rubble pile at the head of Sandia Canyon is legal under RCRA regulations. The justification ignores addressing surface water regulations.

It is the NMED-SWQB's interpretation that this is a violation of WQCC Regulations (20 NMAC, 6.2) Section 2201 (Disposal of Refuse in a Watercourse), and that the contaminated asphalt should be removed from the rubble pile.

The NMED-SWQB requests feedback from HRMB as to how this issue will be addressed. The NMED-SWQB will provide support to HRMB in resolving this matter. The NMED-SWQB also believes the matter should be addressed in a timely manner.

Your cooperation is appreciated.

cc: Ed Kelley, Ph.D., Acting Bureau Chief  
Susan McMichael, NMED-Legal  
File: SWQB:LANL:TA 54



16707

## ASPHALT FROM AREA L PLACED IN AREA G

### History:

- In order to install the mixed waste storage dome (dome 215) in Area L, the old asphalt pad needed to be removed and a new one installed. Prior to removing the old pad, it was sampled in place to establish levels of contamination from the underlying vapor plume. On April 19, 1994, ESH-19 personnel used a jackhammer to remove asphalt from three locations on the old pad. An additional sample was also collected from TA-54 West for use as a baseline. Analytical results from this sampling effort indicated that the asphalt (and underlying soil) from Area L were contaminated with the hazardous constituents 1,1,1-trichloroethane, trichloroethylene, and perchloroethylene. The baseline sample contained no hazardous constituents.
- On July 22, 1994, LANL received a letter from NMED (Benito Garcia to Joseph Vozella) with the following statement, "Because the asphalt pad has been contaminated with Volatile Organic Compounds (VOC's) from the underlying SWMU, all waste asphalt removed from the existing pad must be treated and/or disposed of as a hazardous waste." The asphalt pad referred to in this letter is the old asphalt pad in Area L.
- Subsequent to NMED's letter, Alice Barr of ESH-19 initiated a conversation with NMED concerning disposition of the old asphalt from Area L. Per this discussion, LANL was authorized to reutilize the old asphalt during construction of the new asphalt pad and associated berms. NMED issued nothing in writing concerning this authorization.
- Over a period of weeks during the summer of 1995, the old asphalt pad in Area L was removed (approximate dates, 5/95 - 6/95). Much of the old, excavated asphalt and soil was reused as backfill to attain the required grade for the new pad. Backfill and compaction for the new asphalt pad in Area L was completed the first week of July, 1995. - compacting of asphalt berms?
- On June 15, 1995, approximately 30 yd<sup>3</sup> of excess asphalt and backfill material was transported from Area L to the current site of the compactor building in Area G. This material was placed directly on the ground with the intent of reuse during construction of the pad for the compactor building. An extensive radiological surface survey was conducted on the asphalt prior to its movement to Area G - results indicated no measurable surface contamination.
- Since the asphalt was placed at the compactor building site in Area G in 1995, the following have occurred:
  - 1) the original asphalt pile has been added to - the current estimated volume of the pile is approximately 300 yd<sup>3</sup>. Using KOP, it should be possible to develop a reasonably plausible argument that additional material added to the asphalt pile was non-RAD/non-hazardous material prior to adding it to the asphalt.
  - 2) the pile (original asphalt plus added material) has been relocated at least once - during construction of the compactor building the pile was moved, using a dozer, approximately 80 feet to the east - during this move the expanded pile was thoroughly mixed
  - 3) approximately four loads of soil/asphalt mixture (60 yd<sup>3</sup>) was disposed in the LA County Landfill during the second week of April, 1996 - no Waste Profile Form prepared and it appears that no radiological survey was conducted. To date I have been unable to locate any Area G documentation for the transfer of soil to the Landfill. However, by contacting the Landfill, it may be possible to get copies of the LA County receipts for disposal of this material - I have not yet contacted to Landfill, and will not until instructed to do so.
  - 4) approximately 15 - 20 loads of soil/asphalt mixture (225-300 yd<sup>3</sup>) was disposed in Pit 37 at Area G during the third week of April, 1996 - no Waste Profile Form prepared and it appears that no radiological survey was conducted
  - 5) additional soil has been added to the pile subsequent to shipment of loads to LA County Landfill and Pit 37 - As with the material added to the pile prior to shipment to the Landfill, we can probably argue that material added to the pile after shipment to the Landfill (and disposal in Pit 37) was non-RAD/non-hazardous prior to being added to the pile. This new soil (or at least some portion of it) can probably be separated from the rest of the pile based on visual observation. There is approximately 30 yd<sup>3</sup> of the new soil in the pile.

Concerns:

Alice Barr's discussion with NMED allowed for reutilization of asphalt during construction of the new pad for dome 215. NMED's authorization did not include provisions for reuse of the asphalt in Area G. To date Alice has not been able to locate her phone log documenting this discussion.

Mixing a potentially hazardous waste (asphalt from Area L) with other material in a single pile may result in the entire pile being considered a hazardous waste with the following hazardous waste constituents; 1,1,1-trichloroethane, trichloroethylene, and perchloroethylene.

- There is the potential that we have created an unpermitted hazardous waste pile. Subpart L of 40 CFR 264 sites the requirements for waste piles including; liner, leachate collection and removal system, monitoring, etc.
- Asphalt/soil disposed in Pit 37 potentially constitutes illegal disposal of a hazardous waste.
- Asphalt/soil disposed at LA County Landfill potentially constitutes illegal disposal of a hazardous waste.
- It is possible that material was transported from an RCA (Area G) to the LA County Landfill without proper sampling to ensure that it was not contaminated with radiological constituents.

• *TRANSPORTATION OF HAZARDOUS WASTE WITHOUT MANIFESTING, OR  
Additional Information: FOLLOWING DOT REGULATIONS.*

Alice Barr has proposed a regulatory argument that the asphalt pad is NOT hazardous waste. It is based on the position that the underlying vapor plume does not meet the statutory definition of solid waste given in section 1004(27) of RCRA. RCRA's statutory definition of a solid waste includes, "solid, liquid, semisolid, or contained gaseous material." In order for a material to be a hazardous waste, it must first be considered a solid waste (40 CFR 261.3). Since the vapor plume is not a solid waste (therefore not a hazardous waste), the mixture of the asphalt with the constituents from the vapor plume is also not a hazardous waste. Basically what we have is a solid waste (asphalt) mixed with hazardous constituents (1,1,1-trichloroethane, trichloroethylene, and perchloroethylene). However, since these hazardous constituents are not present above regulatory limits for toxicity characteristic constituents, the mixture is not a hazardous waste.

Recommendations:

Set up a meeting with ESH-19, UC Legal, and EM-SWO personnel to develop an action plan. Joe Rochelle is available for a conference call this week (3/16 - 3/20). Tony Grieggs and Alice Barr should be in attendance.