

## OFFICE MEMORANDUM

TO : John Enders, H-1, CMR Bldg.

DATE: July 26, 1971

FROM : Harry S. Jordan, H-8

SUBJECT: SURVEY OF STORAGE PITS, TA-54

SYMBOL : H8-M2210

0962 TA-54

A survey was made of pits 8, 12, 16, 17, and 21 at TA-54, Area G on July 20, 1971. The survey, in response to your memo June 1, 1971, was made to determine if the pits conformed to guide-lines for pit construction as outlined in a memo from F. C. Koopman, USGS to S. E. Russo, Eng-3 dated June 30, 1965.

1. - The pits inspected were 50 feet from the canyon rim.
2. - Maximum depths of the pits were above adjacent canyon floors.
3. - Generally the pits were laid out with long dimension parallel to surface topographic contours. Pit 21, the long dimension is at right angles to the contours. When the pit is filled, a greater thickness of seal material should be used to cover the wastes to prevent erosion from forming gullies down the long dimension.
4. - There are numerous joints and fractures in the walls of the pits. Joint frequency is about 1 joint per 6 ft. of wall in the pits. This is about the same joint frequency as found in other pits in the area. Most of the joints are vertical or near vertical ranging from 70 to 90 degrees from a horizontal plane. The joint ranged from clay filled to open. The only joint that will need attention is in pit 17 about 265 ft. from the NW corner on the SW wall. The joint opening, strikes 75° to 80° NW and is open 2 to 5 inches, extends 4 to about 12 ft. below the rim of the pit. Joint opening is near vertical. The opening can be filled and plugged when wastes in the pit are laid up to this level.

Pits 8, 12, 16, and 21, cut through two ashflows in Unit 2b. The contact is characterized by increase in size of pumice fragments and thin layers of reworked sediments. Pit 17 is within the lower ashflow. It was noted in several of the pits that the thin sediments in the contact



TO: John Enders, H-1

-2-

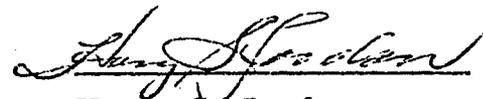
DATE: July 26, 1971

were offset several inches along near vertical joints cutting both ashflows. The offset is probably caused by compaction of the lower flows. This is general information and does not effect the use of the pits for disposal of wastes.

5. - Recent rains have produced small amounts of runoff which has entered the ramp on the NW ends of pits 8 and 17. Runoff should be diverted from the pits. Pit 17 will probably experience some sheet wash runoff into the pit along the SW wall. In the future tuff excavated from the pits should be piled up gradient from the pit to prevent runoff along the walls.

Unless noted, the pit construction meets the suggested guidelines as presented in the letter of June 30, 1965.

As per conversation with W. D. Purtymun on July 20, 1971, photographs of the walls and bottoms of the pits should be obtained for the record prior to the disposal of any wastes in the pits.



Harry S. Jordan  
Group Leader H-8

HSJ:WDP:et

cc: W. D. Purtymun