

FY78

SCHEDULE 21A - ACTIVITY NARRATIVE

LASL RADIOACTIVE SOLID WASTE DISPOSAL SITE STUDIES

The purpose of this program is to design and maintain an effective monitoring system for the solid radioactive waste disposal sites in Los Alamos. To accomplish this, it is necessary to geologically and hydrologically characterize the local environment.

Work in FY 78 will be directed at collection of background information, evaluation of the monitoring system which has been implemented, and expansion and refinement of the system.

Three studies are being carried out to gather background information. One is a geologic mapping project which will continue from FY 77 into FY 78, culminating in the production of a detailed geologic map with special emphasis on the disposal sites. A concurrent petrographic study will define geochemical and textural differences in the units of the local volcanic rock. The final report of this project will also be finished at the end of FY 78.

The geologic information derived from the above two projects are necessary to field studies which will be performed in FY 78 and FY 79 to determine the hydrologic characteristics of the local rock units. In turn, these hydrologic characteristics are necessary to estimate the distribution of radionuclides in and adjacent to selected waste disposal sites.

The synthesis of the two geologic and the hydrologic studies will be used in FY 79 to: (1) determine the geologic suitability of the different units for waste disposal (2) define pathways of

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radionuclide migration in the local environment and (3) design and implement a monitoring system beginning in FY 78 using data to date and new instrumentation developed during FY 77.