General

RDS Identification Section

1. Facil Code LANL - LOS ALAMOS NATIONAL LABORATORY
   RDS Number: R96E0015
3. Location.....: NM
4. RDS Title.....: Assessment at 8 Sites in TA-50 and TA-54
5. EM Office..... .: 40 — 8. Reference RDS Number . REF
6. EM RDS Number..... .. ALLA0003 — 9. Ops Project Manager. : DEBORAH GRISWOLD
7. WBS Code..... .. 1.04.02.66.01 — 10. Ops Office Phone.....: 505-845-4752
11. Dependent RDS Numbers: R96E0013
12. Safety & Health Acc.?: YES
13. A-106 Activity?.....: NO
    Voided RDS?.....: NO

    * - R96E0013 (open) Assessment 4 Sites in TA-50 and TA-54 (TSD)
    Open Codes.....: (1) (2) (3)
    Open Flags.....: [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] 6.

14. RDS Summary Description
This activity covers drilling at the Liquid Radioactive Waste Treatment Plant, TA-50, Building 1 (4 PRSs) and Material Disposal Area G (4 PRSs) to determine nature and extent of contamination, including plumes. These areas contain hazardous and radioactive contaminants. TA-50, Building 1, is known to have a plume of radioactive and hazardous contaminants underneath it as a result of leakage from processing equipment. The State Environment Department has expressed concern about the leakage from this plant. The plume contains hazardous and radioactive contaminants, but the extent of the plume is unknown. Area G is known to contain plumes of VOCs and tritium; their extent is unknown. This drilling is necessary for assessment of possible remediations at both sites. This activity includes preparation of two ACRA Facility Investigation (RFI) reports (one on TA-50, Building 1, and one on MDA G) for delivery to the regulators.

RDS Assessment Section

15. Category

		Be	Du	AE	Be	Du	AE
Public Safety & Health	PS	3D	3D	3D	L	L	L
Site Personnel Safety & Health	SP	4D	4B	4D	L	L	L
Environmental Protection	EP	2C	2C	2C	M	M	M
Compliance	CO	1B		NA	M		
Mission Impact	MI	2B		NA	M		
Mortgage Reduction	MR	NA		NA			
Social/Cultural/Economical	SO	2B	2B	2B	M	L	L

No	Site Title	Media	CHP	MEP	RP	Bin

16. Assessed By: Cheryl Rofer — 17. Date Assessed: 02/11/1994
18. Assessment Completed: YES — 19. Site Priority: 44.0
20. Standard Assumptions Exceptions/Additions:

21. Evaluation Scenario:
Before: These areas will remain under the control of the Los Alamos National Laboratory. Large source terms for both hazardous and radioactive waste exist at MDA G; the size of the source term at the Liquid Radioactive Waste Treatment Plant is not known. Both of these areas are of high concern to the public and indeed are potential contributors to health risks and degradation of the environment. Leakage is known to have occurred from the Liquid Radioactive Waste Treatment Plant, although the extent is not known. The extent of this leakage was raised by the public as an issue in late 1994. The Laboratory agreed at that time that this drilling would take place expeditiously. Similarly, MDA G is the Laboratory's current disposal area for low level radioactive waste (LLRW) and has been subject to public scrutiny. Plumes of VOCs and tritium are known to exist at MDA G. This drilling will allow the extent of the plume at TA-50 to be estimated and the need for further drilling to be determined. It will probably complete the assessment of MDA G and allow a remediation strategy to be developed for the inactive pits and shafts.

During: Drilling will cause slight increases in worker exposure only to the workers directly involved in the drilling. Public perception of the Laboratory's and DOE's willingness to deal with legacy wastes will improve.

After: Assessment of the data from drilling will allow strategies to be developed to deal with public and worker health risks that may exist. Public perception will improve. Interim actions can be developed if necessary. Planning for cost-effective remediation can proceed.

22. Public Safety and Health:
Before (likelihood methodology - r): Pathways may exist for limited migration of radioactive and hazardous chemicals to the side of the mesa or to the drinking-water aquifer at both areas. Contaminants may be carried into canyon drainage and onto San Ildefonso Pueblo lands. However, the likelihood of exposure is low because the public has limited access to the area and concentrations of released contaminants are low.

During: Pathways may exist for limited migration of radioactive and hazardous chemicals to the side of the mesa or to the drinking-water aquifer at both areas. Contaminants may be carried into canyon drainage and onto San Ildefonso Pueblo lands. However, the likelihood of exposure is low because the public has limited access to the area and

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