

Press and Media Advisory
5/24/96

Lab Data Shows Increasing Radiological Incidents

Large and Increasing Number of Incidents Raises Questions About LANL's Safety Cutbacks

Contact: Greg Mello or Susan Hirshberg, 505-982-7747

The Los Alamos National Laboratory (LANL) has provided its Radiological Protection Program Annual Report for 1995 to us. This report answers some questions about the Lab's radiological protection program, but raises further questions as well.

- In 1995, there were 549 total radiological incident reports (RIRs), up from 496 in 1994 and 451 in 1993 (see **Table 1**, next page). In 1995, these included 6 cases of inhalation of radionuclides, 25 wounds involving radioactive contamination, 26 cases where person

-

Table 1: Radiological Incident Reports (RIRs) at Los Alamos National Laboratory, 1993-1995 ¹											
Year	Total RIRs	Occurrences "232.1" ⁴	Nasal Contamination	Wound Contamination	Personal Clothing Contam.	Skin Contamination	Anti-Clothing Contam.	Continuous Air Monitors (Real & False Positives)	Area Contamination	RIRs "Outstanding" as of 2/96 ³	
1993	451	no data	11	13 ²	28	39	121 ²	13	46	158	97
1994	496	265	5	36 ²	41	51	152 ²	18	76	233	11
1995	549	253	6	25 ²	26	39	210 ²	21	79	257	42

Notes

1. From "Los Alamos National Laboratory Radiological Protection Program Annual Report CY1995" ("Source 1"). Categories do not add in original.
2. Data in this column is from "Summary of Radiological Incident Reports, January 1993 to December 1995" ("Source 2, " "for internal LANL use only"). Data covers the first 11 months of 1995 only. Information in these categories is omitted in the public document.
3. It is not clear why radiological incidents from prior years should be "outstanding."
4. [What is this?]

Radiological Protection Programs Information Alert.

The following points are culled from the document entitled: Los Alamos National Laboratory Radiological Protection Program Annual Report CY 1995: Performance Indicators for Radiation Protection, dated February, 1996. This document presents data from 1993 through 1995 and has been publicly released. It is a summary of the Radiological Incident Reports, as well as other information from The LANL group which is in charge of determining laboratory performance in keeping radiological doses As Low As Reasonably Achievable (ALARA). The document states that "work at (Technical Area - TA)55 and other LANL sites has increased drastically" (p.10).

- * In general there seem to be a lot of radiological incidents (549 in 1995), and the number of these incidents has increased each year since 1993. These incidents may be artificially low in previous years, due in part to a 2-3 month stand-down at TA-55 during 1994.
- * There are many indicators which are generally higher in 1995 than they were for 1994. According to Al Jordan, of the Defense Nuclear Facilities Safety Board, there have been reporting improvements in the last couple of years.
- * There is the possibility that the monitors not be functioning at their optimal level at TA-55. True positives (hits) decreased on the Continuous Air Monitors (CAMs), this in spite of the fact that other radiological indicators increased. The false alarms stayed the same which means that the ratio of hits to false alarms changed in 1995 to be very different from what it was in previous years. The only "explanation" LASG has received to date is that improvements have been made in the CAM vacuum pumps which, contrary to observation, should increase the rates of both hits and false alarms.
- * The external effective dose equivalent is 43 % higher than the ALARA goal which was set for the laboratory by the University of California Performance measurement plan, and 19% higher than 1994. Presumably increased activity at TA-55 would have been predicted when the ALARA Goals were set in 1994.
- * There are significantly higher number of employees who received a 1-2 rem. dose in 1995 (the highest dose received). However, since 1994, total committed doses must be recorded in the year in which the exposure took place rather than calculated as accumulating in the body over a fifty year period.
- * It is not clear whether the Ta-55 doses and rate of radiological incidents is elevated merely because there is so much activity at that site or because there are serious breaches of safety.
- * The Maximum dose to a single worker in 1995 was 1949 millirem at TA-55. Because of the ALARA program, this employee was pulled from further work before incurring the dose of 1950 millirems which is the LANL Administrative Control Limit.
- * Apparently the EH resident for DOE Headquarters at LANL, received a radiological protection program report which used a different reporting criterion; DOE administrative order 5000.3B rather than 232.1 as used in the public document. 232.1 is not yet in effect, and seems to report more incidents than 5000.3b However neither of these administrative orders are listed as being in force in the UC/LANL contract though 5000.3a does deal with occurrence reporting.