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Summary of Personal Monitoring Data for Asbestos-Related Maintenance Work at the Lawrence Livermore National Laboratory

S.M. Franaszek
R.J. Kelly

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SUMMARY OF PERSONAL MONITORING DATA FOR ASBESTOS-RELATED
MAINTENANCE WORK AT THE LAWRENCE LIVERMORE NATIONAL
LABORATORY S. M. Franaszek, R. J. Kelly,
Hazards Control Department,
Lawrence Livermore National Laboratory, Livermore, CA 94551

solvents, , transite (cement asbestos) work, and roofing material removal. Data ranges and mean values were calculated for all procedure description categories. These results are presented in both chart and graph form. These charts are a historical record of exposure during

30-Minute Excursion Limit (EL) Samples

- 77 of the 186 reported results were 30-minute EL values.
- None of the results exceeded the 30 minute excursion limit of 1.0 f/cc.
- Eight excursion sample results (9%). approached the 30-minute Excursion Limit (>0.33 f/cc or 33 % of the applicable EL) .
- Seven of the eight samples that approached the 30 Minute Excursion Limit were in the TSI removal with Glove Bag procedure description category.
- One of the samples that approached the 30 minute EL was in the Decontamination operation category.

Summary of 30 minute Excursion Limit Sample Results

Work Category	# Samples	Approaching EL	# Greater than EL	Mean (f/cc)	Range (f/cc)
decontamination	3	1	0	0.14	0.04-0.36
TSI/glove bag	25	7	0	0.30	0.05-0.91
misc. gasket/insul	6	1	0	0.21	0.09-0.53
wallboard	7	0	0	0.05	0.04-0.09
VAT removal	13	0	0	0.04	0.04-0.06
mastic removal	6	0	0	0.05	0.04-0.06
transite work	6	0	0	0.05	0.02-0.06
roofing work	4	0	0	0.03	0.00-0.04

CONCLUSIONS

- Work procedures which rarely resulted in significant exposures included wallboard/skimcoat removal, vinyl asbestos tile (VAT) abatement using wet methods, the removal of VAT mastic using solvents, , Transite (cement asbestos) work, and roofing material removal
- Work procedures which frequently resulted in the exposures that approached or exceeded regulatory limits included Glove Bag removal of TSI, Surface Decontamination, and gasket and wire insulation removal.
- Glove bag removal of TSI resulted in significant exposures. 7 of 25 (28%) reported EL samples approached the regulatory limit of 1.0 f/cc. 3 of 22 (14%) reported 8-hour TWA's approached the PEL of 0.1 f/cc. The short duration of most glove bag jobs limited 8-hour TWA exposures.
- Surface decontamination resulted in significant exposures. 1 of 3 (33%) reported 30 minute EL samples approached the applicable regulatory limit of 11.0 f/cc. 1 of the 28 (4%) reported TWA results exceeded the applicable regulatory limit of 0.1f/cc. 8 (28%) of the reported TWA results approached 0.1 f/cc
- Work procedures where exposures frequently approached or exceeded regulatory limits typically involved working with materials that contain high percentage asbestos in a loose matrix.
- Work procedures where exposures were well below regulatory limits frequently involved working with asbestos containing materials in a tightly bound matrix.

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