



PERSONNEL MONITORING AT NAL

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Accelerator On

Presently, personnel monitoring is done with film badges containing neutron and gamma-sensitive film packages. In addition, pairs of Bendix (TM) pocket ionization chambers are issued and expected to work in high-radiation areas. These pairs consist of one tissue-equivalent ion chamber and one "neutron-insensitive" ion chamber.

For the future, we plan to replace the neutron film badge with the M-3 dosimeter developed by L. Hoy of DuPont Laboratories. Our experiments with the M-3 have been very encouraging.¹

Accelerator Off

Presently, in addition to the neutron and gamma-sensitive film badge, personnel may be required to wear air-filled pocket ionization chambers and exposure-rate warning devices² ("chirpers") when access is possible to the accelerator enclosures.

For the future, we plan to have electronic exposure integrators with alarms set at preagreed levels of exposure. Also, we plan to use thermoluminescent dosimeters to monitor exposures to the skin and extremities.



REFERENCES

- ¹M. Awschalom, The Radiation Safety Philosophy and Its Implementation at NAL, to be published.
- ²H. S. Dankin, Lawrence Radiation Laboratory Report UCRL-11199 (Rev. 1), May 29, 1964.