

(b) The fabrication of reactor fuel elements will be done in a single building which is designated as Building No. 8 at Coshanna, Pennsylvania. It is a one-story concrete and steel structure, which will be specifically adapted to fuel element fabrication. It is situated approximately 60 yards distant from a larger building which houses the Research Division offices, other laboratories, and the general shops which support the laboratories. Access is restricted by a 6 foot Cyclone fence, and the building is under 24-hour a day surveillance by the Curtiss-Wright security force. The layout of Building No. 8 is shown in Figure 1.

Section 4.2 Monitoring and Protective Equipment

(a) (1) Storage and processing of material will be monitored by at least two devices which sound an audible alarm if radiation exceeds predetermined levels. One will monitor the storeroom, and one will monitor the processing area. Monitoring and alarm devices are beta-gamma sensitive detectors and alarm systems manufactured by Nuclear Measurements Corporation, Indianapolis, Indiana, and sold under the name Nucliguard, Model ICRM-1, adapted to sound an external alarm.

(2) Monitors will be set to trigger alarms at radiation levels prescribed by health physicists, between 5 and 20 milliroentgen per hour. The alarms which are integral to the monitors will be wired to actuate external alarm horns. One alarm horn will be located inside the building and one will be located in a guard station approximately 100 yards distant from the building. At night the latter alarm circuit will be switched to actuate a horn audible to guards on patrol.

(3) Special nuclear material will be processed and stored not farther than 90 feet from a monitoring and alarm device.

(b) The following survey instruments will be available for surveying equipment, material, and personnel:

- (1) 2 zinc sulphide alpha survey meters.
- (2) 4 G-M beta-gamma survey meters.
- (3) 2 ionization chamber type survey instruments.
- (4) 2 continuous air-sampling units.
- (5) 1 alpha scintillation bench monitor.
- (6) 2 portable air samplers.
- (7) 1 portable alpha gas proportional counter.

(c) Film badges will be worn by personnel working in areas where they may be exposed to significant amounts of radiation. Periodic urine bioassays will be carried out on all personnel who may be subject to exposure to airborne or surface contamination which would result in the inhalation or ingestion of radioactive material.