

## Personnel Monitoring (Film Badge, TLD) Instructions

### INSTRUCTIONS FOR USING PM BADGES

#### A. General Instructions

A whole body personnel monitoring (PM) badge (film, TLD or OSLD) will be worn at all times when handling, using, or transporting a portable nuclear gauge. Each Authorized User (AU), and individual gauge operators working under their supervision, will be assigned a PM badge bearing their name, which can only be worn by the individual to whom it has been assigned. Badges are to be worn on the front of the torso, at or above the waist and below the shoulder. Badges must be promptly returned to the Radiation Safety Officer (RSO) at the end of each monitoring period to ensure rapid processing.

#### Recommended Work Practices for Personnel Monitoring

- ◆ Never leave badges in close proximity to a gauge or other radiation source
- ◆ Protect badges from moisture, intense heat or light and chemicals
- ◆ When not in use, store badges with their control badge in a low background radiation area

#### B. Instructions for New Hires and Lost/Damaged Badges

To ensure accurate monitoring of occupational exposures, an assigned badge will be ordered immediately for new gauge operators and provided for use at the start of the next monitoring period. A spare/visitor badge may be provided to new workers until the assigned badge arrives. Spare badges may also be used to replace a badge that has been lost or damaged before the end of the monitoring period. To ensure their use by only one individual, spare badges will be imprinted with the worker's name or another form of identification. Workers assigned spare badges will have the dose recorded by the badge added to their occupational dose record. In the event of a lost/damaged badge, the RSO will estimate the worker's dose for the period the badge was worn, and notify the dosimetry processor if the individual's dosimetry record needs to be revised.

### PM RECORD REQUIREMENTS

#### A. Records of Prior Occupational Dose

Prior to assigning a PM badge to a worker, every reasonable effort will be made to obtain records indicating the individual's dose during the current year as well as the individual's lifetime cumulative occupational radiation dose. If a worker is unable to provide the information, records from their previous employer will be obtained. If no records are obtained, documentation will be maintained on file demonstrating that a request for records was furnished to the worker's previous employer.

#### B. Records of Individual Monitoring Results

Records of doses received by each monitored worker will be maintained as long as the license remains in effect.

**C. Annual Reports to Monitored Individuals**

Each worker assigned a PM badge will receive a written annual exposure report describing the past year's monitoring results.

**D. Termination Reports to Monitored Individuals**

Within 30 days of termination of employment, or within 30 days after the individual's exposure has been determined, whichever is later, each monitored worker will receive a written exposure report summarizing the individual's occupational radiation exposure.

**E. Records for Female Workers and Declared Pregnancies**

Upon hiring, female personnel assigned to work with portable gauges and devices will be provided verbal instructions concerning the potential risks involved for pregnant women exposed to radiation and a copy of U.S. NRC Regulatory Guide 8.13 ("Instruction Concerning Prenatal Radiation Exposure" – Rev. 3, 6/99). Following receipt of the instructions and guidance, female workers will document receipt of these instructions by signing the *Instructions for Women Working with Radiation*.

Declared pregnant women will be provided verbal instructions to always wear their assigned PM badge at waist level to estimate the embryo/fetus dose. Such workers will sign an *Instructions for Declared Pregnant Women* form to document receipt of instructions on PM requirements during pregnancies and a *Declaration of Pregnancy* form that includes the estimated date of conception. The forms will be retained until license termination.

Fetal doses will be kept ALARA, and will not be allowed to exceed 500 millirem during the entire pregnancy as a result of occupational exposures. Efforts will be made to avoid substantial variation above a uniform monthly exposure rate to a declared pregnant woman. In addition, reasonable efforts will be made to adhere to regulatory recommendations to limit the embryo or fetus exposure to 50 millirem in any one month. Records of fetal dose will be documented in an *Occupational Radiation Dose Record* and the forms, with the dose records of the declared pregnant woman, will be retained until license termination.

**F. Occupational Dose Limits for Minors**

Minors will not exceed an annual occupational dose of 500 millirem.

**G. Worker Overexposure Reports**

If a report of an overexposure to an individual is sent to the regulatory agency the exposed individual will also be notified no later than when the report is sent out.