INTRODUCTION

Themoluminescent dosimeters (TLDs) are worn to record cumulative whole body dose (mSv) received from occupational exposures to ionizing radiation including x-ray producing machines, high energy beta and gamma emitting isotopes. Information obtained from exposure reports is useful to evaluate the effectiveness of protective measures.

WEARING TLD BADGES

1. Badges are worn at the chest or waist levels to record whole body exposure.
2. Extremity TLDs should be worn facing the source of radiation. If gloves are worn, the ring should be placed underneath the gloves to avoid potential contamination.
3. Each badge is assigned to a specific individual and cannot be shared by others.
4. Badges are to be worn only while working at Ryerson University and not taken off campus.
5. Lost or damaged badges should be reported immediately to the Radiation Safety Officer at extension 4212 and a replacement badge will be issued.

STORAGE OF TLD BADGES WHEN NOT IN USE

1. The badge must not be left in an area where it could receive a radiation exposure when not worn by the individual (e.g. on a lab coat or left near a radiation source).
2. Store badges in a dark area with low radiation background (in low light away from fluorescent or UV lights, heat and sunlight).

OBTAINING BADGES

1. Employees beginning work with ionizing radiation should apply to be included in the TLD radiation monitoring service. Please send a copy of the request to the Radiation Safety Officer in the IRM. The individual's name, SIN, birthdate, contact information, area of work and type of radiation potentially exposed to will be required. A sample form is provided in the attachment. All information will be kept confidential.
2. Badge plaques are changed every few months by the IRM. You will be contacted when it is time to exchange your badge.

MONITORING RESULTS

All monitoring results are maintained and evaluated by the Radiation Safety Officer. Any person interested in their radiation exposure or who has questions regarding the radiation dosimetry service may enquire with the Radiation Safety Officer.
BACKGROUND INFORMATION
TLD BADGES used to MONITOR RADIATION EXPOSURE

Exposure monitoring with personal dosimeters is to prevent over-exposure by monitoring exposure history.

WEARING TLD BADGES

Single badges cannot be shared by several people. When badges are shared by more than one individual, it is not possible to break down the exposure recorded by a TLD badge shared by a group and assign exposure to an individual.

STORAGE OF TLD BADGES WHEN NOT IN USE

Themoluminescent dosimeters (TLD) have lithium fluoride (LiF) chips which are sensitive to ultraviolet light and may produce false results if exposed. UV light is emitted from normal fluorescent lights and the badges must be protected from exposure to them. Care should be taken that the dose recorded by the TLD badge is representative of the true dose to the individual to whom it is assigned.

MONITORING RESULTS

All monitoring results are maintained and evaluated by the Radiation Safety Officer. Any person interested in their radiation exposure or who has questions regarding the radiation dosimetry service may enquire with the Radiation Safety Officer. Radiation monitoring results for each individual are recorded in the National Dose Registry operated by Health and Welfare Canada in Ottawa.

APPLICABLE LEGISLATION, STANDARDS AND GUIDELINES: