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## CLIENT DISCLOSURE STATEMENT

Thermoluminescent dosimeter (TLD) badges should be worn by x-ray professionals whose work involves a direct or potential exposure to radiation. Our dosimetry service is a convenient and cost-effective way to meet state and federal regulations.

PL Medical Co., LLC provides a monitoring service, which processes exposed TLD badges on a regularly scheduled basis using state-of-the-art technology and dose assessment algorithms.

Our laboratory is accredited by the National Institute of Standards and Technology (NIST) through the National Voluntary Laboratory Accreditation Program (NVLAP) to process the Panasonic TLD model UD-802 in an 802-1 PL Medical Co., LLC holder for ANSI/HPS N13.11-2001 categories IA, IIA, IIIA, IVA & VAA.<sup>1</sup>



### TLD Badges

TLD dosimeters are one of the most advanced applications of thermoluminescent detectors. The TLD's detect exposure with four independent detection elements and are capable of estimating doses at three tissue depths. The automated process for badge reading and report generation eliminates the chance of human error. All records are electronically stored for future reference.

The TLD badges are small, lightweight and clip easily to clothing. Each TLD badge is punch-coded and bar-coded with a unique number for identification and tracking.

### Instructions

Your clinic will receive new TLD badges for every employee prior to the start of the wear period along with a reply envelope for returning the badges for processing and reporting.

A control badge is provided free of charge for each cycle and is essential to the monitoring system. It is used to determine background radiation during transit and while the badges are at the clinic. This control reading is subtracted from the individual employee badge readings during processing to obtain the occupational dose. **Do not wear this control dosimeter. The control dosimeter should be stored in the same location as the employee badges when they are not being worn. This should be outside the x-ray rooms, in an area free from radiation, high temperatures and humidity. Do not keep them inside a drawer or any other container.**

<sup>1</sup> Any other badges, such as extremity (ring) badges, are not covered.



At the end of the wear period, it is of utmost importance that the correct control be returned with the appropriate shipment. If this procedure is not followed, the accuracy of the TLD analysis may be affected. Results for TLD's received more than 90 days after the end of the scheduled cycle may compromise the accuracy of the TLD analysis.

Wear your TLD badge throughout the workday. Do not take the TLD badge's home or expose them to high temperatures or high humidity. Only the individual whose name appears on the label should wear the TLD badge. Do not share or make changes to the TLD badge.

Due care should be taken to avoid contamination of the TLD badges. Contamination of the TLD badge with liquids or other substances will destroy its effectiveness for measuring radiation exposure levels. Adequate precautions should be taken to avoid excessive exposure to radiation when taking x-rays that entail holding a patient.

### **Annual Radiation Exposure Limits**

Based on the Nuclear Regulatory Commission's recommendation (Code of Federal Regulations Title 10, Part 20) the maximum annual limits are:

Deep Dose Equivalent	5,000 mrem/year
Lens Dose Equivalent	15,000 mrem/year
Shallow Dose Equivalent	50,000 mrem/year
Fetal Dose	500 mrem/year
General Public	100 mrem/year

Over exposure to ionized radiation can present potentially serious health problems. Without accurate monitoring, there is no continuing way of tracking radiation exposure.

### **Dose Report**

Once the TLD's have been returned to our laboratory, a Dose Report will be issued. A printed report will be sent to your clinic for your records. The report includes the current monitoring period, the dose equivalents for the monitoring period and year-to-date and lifetime dose information for each returned badge. If you are currently using another service, we can incorporate the lifetime data into our records from their final report.

The Dose Report also cites the annual exposure limits. If any reading should ever exceed the safety standards, your clinic will be contacted by phone by an authorized representative of PL Medical Co., LLC. You can help us provide you with accurate reporting by returning all the TLD badges including the correct control promptly at the end of each wear period. Additional copies of the dose record can be obtained by contacting our laboratory. In addition, you can access your dose reports online at <http://myTLDaccount.plmedical.com>.

The dose report contains the following elements:

- Deep dose applies to external whole body exposure at a tissue depth of 1 cm, density 1,000 mg/cm<sup>2</sup>.
- Shallow dose applies to an external exposure of the skin or other body extremity at a tissue depth of 0.007 cm, or density 7 mg/cm<sup>2</sup>.



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- Eye dose applies to an external exposure of the lens of the eye at a tissue depth of 0.3 cm, or density 300 mg/cm<sup>2</sup>.

### Minimum Dose and Type of Radiation

A dose is reported as "MR" if it falls below the minimum detectable limit.

- X-ray, gamma, beta 10 mrem
- Fetus badge 10 mrem

### How to make a change in service

Update your service information by entering the information online at <http://myTLDaccount.plmedical.com> or faxing the following information to (860) 223-5941:

1. Your Clinic Name
2. The name, employee ID number, and date of birth of the person you need to add/delete

The Clinic will be charged or credited on a pro-rated basis.

### Note:-

- The dose report shall not be reproduced, except in full, without written approval of PL Medical Co., LLC.
- The dose report must not be used by the client to claim product endorsement by NVLAP.
- Information on rules and regulations as determined at the state level can be obtained by contacting your State Radiological Board or Health Department.
- Information on radiological safety regulations can be found by contacting the U.S. Nuclear Regulatory Commission and requesting a copy of Title 10, Code of Federal Regulations, Part 20, or by contacting OSHA and requesting Title 29, Code of Federal Regulations, Part 1910.
- *To provide you with uninterrupted service, your subscription will automatically renew at the end of the year unless we are informed otherwise.*
- There is a \$5 replacement fee for a lost/not received badge. Invoicing for non-received TLD's occurs if a badge has not been received within 6 months after its end-of-wear date.