

DEPARTMENT OF COMMERCE

National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program

rogram November 7

November 7, 2005

ISSUE DATE:

NUMBER: LB-12-2005

LAP: Dosimetry

LAB BULLETIN

SUBJECT: Panasonic UD 710 and UD 7900 TLD Readers

The Panasonic UD 710 reader for thermoluminescent dosimetry (TLD) is no longer being manufactured. In addition, repair parts to maintain the UD 710 readers are not readily available. However, Panasonic has designed the UD 7900 TLD reader to be a replacement of the UD 710 TLD reader.

To help ensure that dosimetry processing is not interrupted because of maintenance issues with the UD 710 readers, NVLAP will allow a laboratory to use the UD 7900 reader as long as the conditions described below are met.

The laboratory must verify and document the following:

- 1) Heating profiles of the UD 710 and UD 7900 readers meet the same acceptance criteria for fade and thermal noise.
- 2) Relative response of a random sample of dosimeters irradiated to a known dose produces the same (within reasonable statistical deviations) results, relative to a group of reference dosimeters, when read on the UD 7900 as on the UD 710 readers.
- 3) Calibration of the UD 7900 reader to measure dose is performed using the same procedures and acceptance criteria as used for the UD 710 reader.

The laboratory shall send NVLAP a copy of the documentation of the results of all tests and calibrations. NVLAP will review the documentation and revise, accordingly, the laboratory's scope of accreditation. In addition, the documentation shall be maintained by the laboratory and be available for review at the next on-site assessment.

The laboratory shall proficiency test with the UD 7900 reader at the laboratory's next cycle for proficiency testing.

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