

DEPARTMENT OF COMMERCE

National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program

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LAP: Ionizing Radiation

Dosimetry

LAB BULLETIN

SUBJECT: Clarification of NIST Handbook 150-4, 5.6.2

This bulletin clarifies the requirement in NIST Handbook 150-4, 5.6.2, "Proper performance of the dosimetry processing system shall be verified using dosimeters that have been irradiated in well-characterized radiation fields that are traceable to a national standard, such that, over a two-year cycle, at least five dosimeters have been tested in each category in the laboratory's scope of accreditation." Clarification of this requirement will help reduce the substantial financial burden on dosimetry laboratories to show proficiency.

Since laboratories are required to participate in proficiency testing every two years (see NIST Handbook 150-4, 3.4.1.1) for all dosimeter types and radiation categories for which the laboratory is accredited, the testing requirement in NIST Handbook 150-4, 5.6.2 is not necessary. Laboratories already exceed the requirement of testing five dosimeters for each dosimeter type and radiation category for which the laboratory is accredited because proficiency testing requires that the laboratory test fifteen dosimeters of each dosimeter type and radiation category for which it is accredited.

Laboratories have many procedures in place to assure quality dosimetry processing. Among the procedures included in a laboratory's quality assurance processes are routine calibrations of equipment, daily equipment checks, trending and tracking of measurement results, and mandatory participation in regularly scheduled proficiency testing. Since there is no demonstrated need for additional dosimetry proficiency testing, laboratories do not have to perform additional testing as described in NIST Handbook 150-4, 5.6.2.

The requirements in NIST Handbook 150-4, 5.6.3 and 5.6.4 relate directly to 5.6.2. For that reason, NIST Handbook 150-4, 5.6.3 and 5.6.4 are also no longer necessary.

This bulletin should be kept with NIST Handbook 150-4 until the handbook is revised. The bulletin has also been posted to the NVLAP Program-Specific Handbooks and Lab Bulletins page of the NVLAP website: http://www.nist.gov/nvlap.

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