

	DEPARTMENT OF COMMERCE National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program	ISSUE DATE: March 12, 2010
	LAB BULLETIN	NUMBER: LB-49-2010
		LAP: Ionizing Radiation Dosimetry
SUBJECT: Selection of Beta and Photon Categories for Mixed Field Testing		

This bulletin clarifies the NVLAP requirement for the selection of the beta and photon subcategories used in mixed field testing in both ANSI N13.11-2009 and ANSI N13.32-2008 for ionizing radiation dosimetry (DOS) laboratories.

It has come to NVLAP's attention that there is some confusion and, therefore, concern among various parties regarding the subcategories used in mixed field (beta/photon mixtures and neutron/photon mixtures) testing.

Dosimetry processors choose the proficiency testing categories in ANSI N13.11-2009 *American National Standard for Dosimetry – Personnel Dosimetry Performance – Criteria for Testing*; and ANSI N13.32-2008, *Performance Testing of Extremity Dosimeters* that best represent the dosimetry services that the laboratory provides. After much discussion with NVLAP assessors and other technical experts, NVLAP has decided to also allow the dosimetry processors to choose the beta subcategories and the photon subcategories to be used in mixed field testing, but only when the dosimetry processor has a specific need to do so.

The dosimetry processor shall follow ANSI N13.11 and ANSI N13.32 as written for mixed field testing, unless otherwise determined. If the processor has chosen the subcategories, then the choice of subcategories used in mixed field testing has to be based on sound technical reasoning. As such, the processor shall perform a technical analysis and maintain a technical basis document that supports the processor's decision for the choice. The technical basis document will be reviewed by the NVLAP assessor when the on-site assessment is performed.

The dosimetry processor shall accurately represent the limitations of the dosimeter in its advertising and representation to clients, if the choice of subcategories is not exactly identified by the standard.

This bulletin has also been posted to the NVLAP web site at (<http://www.nist.gov/nvlap>).

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