

**ANSI/HPS 13.37, Environmental Dosimetry
Regulatory Guide 4.13, Environmental Dosimetry**

Steve Garry
ANSI Committee member

ABSTRACT

Regulatory Guide 4.13, Rev. 1 (1977) on environmental dosimetry endorses (with exceptions) ANSI N545 (1975). ANSI N545 has been withdrawn, and is likely to be superseded by a new ANSI/HPS N13.37 standard on environmental dosimetry.

Significant changes include improvements that have been made in the data analysis section of the ANSI/HPS 13.37. The new analysis methods provide a method of detecting a facility-related dose exceeding 5 mrem per quarter and 10 mrem per year. Doses below those levels are generally considered non-detectable.

The old ANSI N545 provided two data analysis “concepts” (but did not provide implementation methods), i.e.;

- 1) Compare indicator stations to control stations, and
- 2) Compare each monitoring station to its own historical baseline.

The new ANSI 13.37 standard adopts the second method, providing implementation methods for:

- re-evaluation of historical data for each monitoring station,
- establishment of a baseline background dose rate for each monitoring station,
- making current quarter and year data correlations to each monitoring station’s baseline background dose rate
- determination of facility-related dose at each monitoring station
- determining by extrapolation a member of public dose.

NRC Regulatory Guide 4.13, “Environmental Dosimetry” is currently being revised in consideration of the new ANSI/HPS 13.37 standard, and a preliminary, unapproved draft copy of the Regulatory will also be presented for stakeholder review and input.

Paper presented at the 24th Annual RETS/REMP Workshop, June 24-26, 2014, Savannah, GA.