

# **Environmental Radiation Surveillance Gamma Radiation Readings: Beginning 1995 OVERVIEW**

**Center for Environmental Health  
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**Health Data NY**

**General Description:** *The information in the Environmental Radiation Surveillance: Gamma Radiation Readings or Thermoluminescent Dosimeter (TLD) results dataset is a continuation of the direct radiation component of the annual reports on Environmental Radiation in New York State prepared by the Department of Health (NYSDOH) since 1982 and previously prepared by the New York State Department of Environmental Conservation (DEC). (Back copies of NYSDOH reports may be available). It includes data collected from 1995 through 2012. Please note that the program's scope and corresponding sample schedules have been modified over this time period to reflect operational changes and site closures. As a result, certain sites may not show data for all years. Site data for certain periods may also be limited by missing devices at collection time. If a device is missing at collection time a result cannot be obtained. Facility operators may use data for inter-comparison and trending purposes. Please note that this program is not designed, or intended to monitor releases from discharge points at a specific facility (e.g., a stack). The facility operator performs this type of monitoring to meet the requirements of its licensing agency (e.g., a federal agency or the New York State Department of Environmental Conservation).*

*The direct radiation monitoring component of the Environmental Radiation Surveillance Program measures the radiation level in the environment at several locations in the State. This is accomplished by deploying Environmental TLDs. The Environmental TLDs provide a quantitative measurement of the radiation levels in the area in which they are placed. Environmental TLDs are typically deployed for approximately one calendar quarter and processed or sent for processing, as appropriate. Results are reported in millirem per quarter (mrem/quarter).*

**Data Methodology:** *Monitoring was performed around three operating nuclear power plant sites containing six operational nuclear power plants, one nuclear power station that had fuel loaded but did not operate commercially, several other research reactors, and industrial facilities using radioactive materials. A TLD is also deployed at a background location which is not impacted by nuclear facilities. The background TLD was placed at various private residences in the Greater Albany/Capital District. The specific location has changed due to access to a respective residence. Since there are no nuclear facilities or licensed users of radioactive materials in any of these vicinities, the selected location and corresponding measured levels are appropriate to be used for background. A TLD location of note is the West Valley Site Facility/Operator, Fence Line at Waste Area Location. This TLD is on owner controlled property which is not accessible to the general public. The Waste Area is a building which stores radioactive waste being processed for off-site disposal. Actual exposure to anyone on the site is much lower than the TLD results show, since workers will not spend 24 hours per day at this*

*location. In addition, workers at the site have individual personnel monitors, which determine their actual radiation doses.*

*Through 2003 in-house devices were deployed and analyzed. At the start of calendar year 2004, new devices were put in service for evaluation. Devices used starting in the second calendar quarter of 2004 are commercially available from various dosimetry service providers. Variations may be noted due to different sensitivities of the commercially available devices over previously used in-house TLDs.*