

Summary 2003-2004 Solid Waste Radiation Monitoring Alarms

As of March 2006, radiation monitoring is being performed on all incoming wastes at 97.5% of the required solid waste facilities. Alarm summaries for 2004 were reported in June 2005. Short-lived radioactive materials (RAM) associated with medical treatments and diagnosis accounted for 89.9% of the alarms (87.7% in 2003), technologically enhanced naturally occurring radioactive material (TENORM) accounted for 5.9% (6.7% in 2003), discrete radium sources accounted for 1.6% (2003 data unavailable), reactor produced materials (byproduct material) accounted for 2.6% (2.9% in 2003). The types of material causing solid waste radiation monitor alarms appear consistent between the 2003 and 2004 reporting periods.

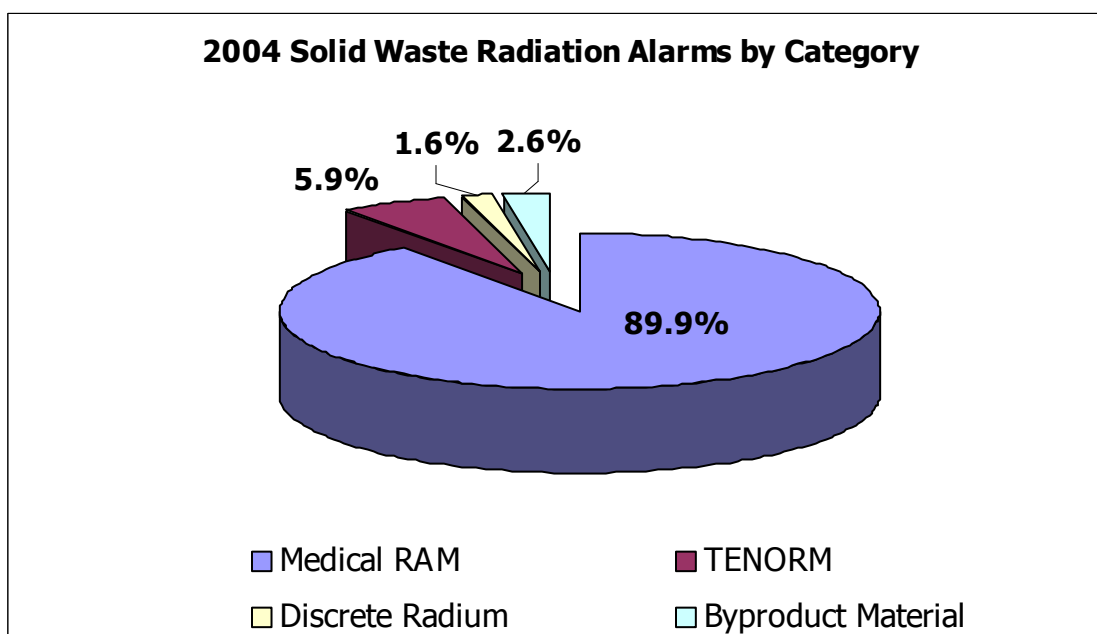
Solid waste radiation monitoring systems are required to alarm at 10 microrengens per hour (10 μ R/hr). Vehicle alarms reported for 2004 revealed that 99% of the vehicle radiation monitor alarms were for loads reading less than 5000 μ R/hr on contact (5 cm). The average dose rate for all alarms was 367 μ R/hr, and the highest vehicle dose rate was 11,600 μ R/hr. (Note: For gamma radiation 1 R equals approximately 1 rem.)

Summary of Radiation Alarms - 2004

Type	Number of incidents	Percent of Total
Short-lived medical RAM	1446	89.9%
TENORM	95	5.9%
Discrete Radium Sources*	25	1.6%
Other Byproduct Material **	42	2.6%
Total	1608	100%

* Discrete radium sources include: luminous compasses, aircraft dials, static eliminator, smoke detectors, and other luminous products removed from waste loads.

** In 2004, many of the byproduct material alarms resulted from approved sewage sludge disposals from the Royersford Sewage Treatment Facility containing mixed fission products. It is expected this fractional percent will decrease in 2005.



Note: Many of the byproduct material alarms resulted from DEP approved sewage sludge disposals from the Royersford Sewage Treatment Facility.