Summary of Solid Waste Radiation Monitor Alarms

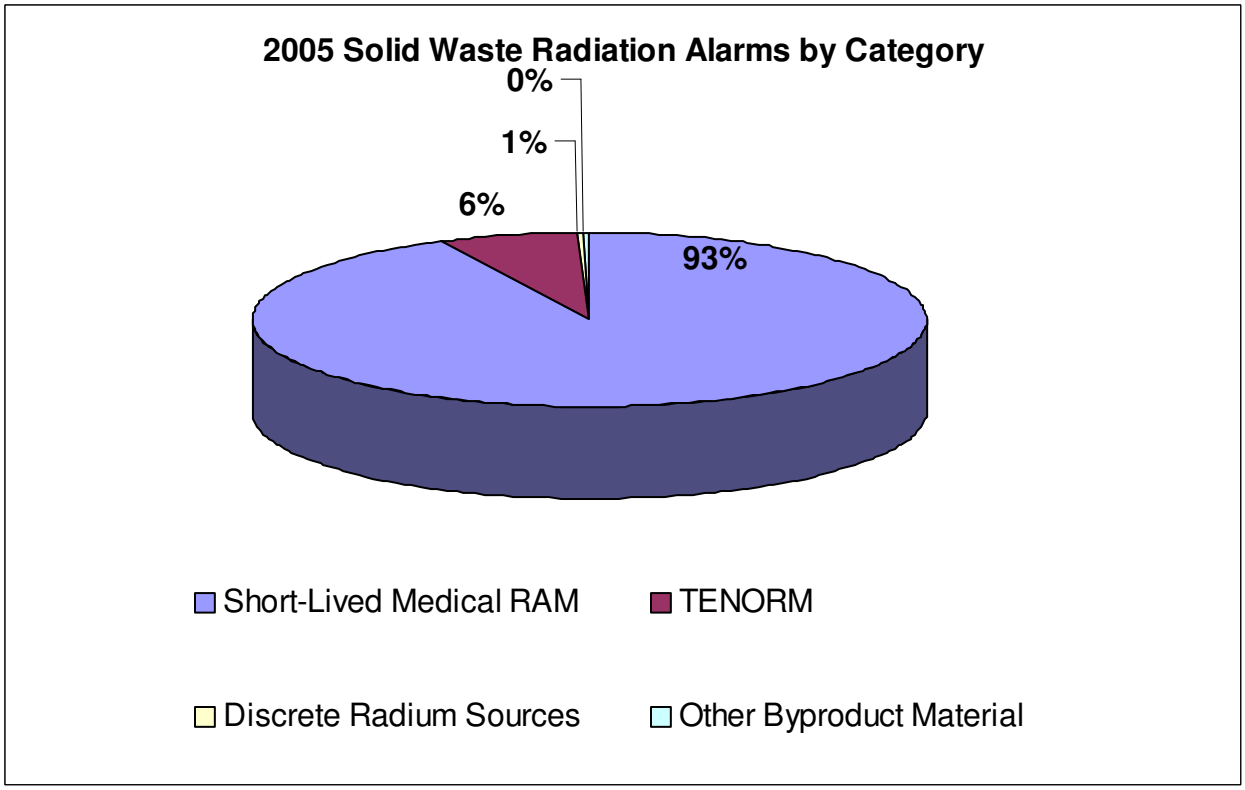
All Bureau of Waste Management (BWM) permitted solid waste facilities are currently monitoring incoming waste for radioactivity. Alarm summaries for CY 2005 were reported in June 2006, with short-lived radioactive materials (RAM) associated with medical treatment and diagnosis accounting for 93% of the alarms (89.9% in 2004). Technologically enhanced naturally occurring radioactive material (TENORM) accounted for 6% (5.9% in 2004), discrete radium sources accounted for 1% (1.6% in 2004), reactor produced (byproduct material) accounted for <1% (2.6% in 2004). The material causing the alarms appears consistent between the 2004 and 2005 reporting periods.

Solid waste radiation monitoring systems are required to alarm at 10 microroengens per hour (10 μR/hr). Vehicle alarms reported for 2005 revealed that 99% of the vehicle radiation monitor alarms were for loads reading less than 5000 μR/hr on contact (5 cm). The average dose rate for all alarms was 379 μR/hr, and the highest vehicle dose rate was 11,200 μR/hr. No trend was evident comparing 2004 & 2005 data. (Note: For gamma radiation 1 R equals approximately 1 rem.)

Table and Chart Summary of Radiation Alarms

Type	Number of Alarms	Percent of Total
Short-lived medical RAM	1860	93%
TENORM	126	6%
Discrete Radium Sources*	10	1%
Other Byproduct Material **	3	<1%
Total	**1999**	**100%**

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



Note: TENORM alarms include residual waste approved for disposal by request under BWM Form U.