

Special Nuclear Material Simulation Device

Disclosure Number

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Technology Summary

Special nuclear material (SNM) is a term that refers to fissile materials which, in sufficient quantity, can be used to produce a nuclear weapon. The detection of SNM is an important part of international efforts to interdict such material that is being transported illicitly. Devices that simulate comparatively large quantities of SNM and that can be used to check the operability of SNM monitoring systems without entailing the very undesirable risks involved with the use of large quantities of SNM. An apparatus for simulating special nuclear material is provided. The apparatus typically contains a small quantity of special nuclear material in a configuration that simulates a much larger quantity of special nuclear material. Methods are provided to simulate special nuclear material for testing radiation monitoring portals. Typically the methods use at least one primary SNM spectral line and exclude at least one secondary SNM spectral line.

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