

MALRAD SCENARIO 5



Background:

Passengers on a city centre bus report a suspicious dripping package under a seat and report it to the driver who upon closer inspection notices what appears to be plastic pieces and some kind of white powder in a plastic bag. One of the pieces seems to have a trefoil symbol on it and as a result of this, the driver notifies the police who subsequently notify the relevant authorities that a radioactive source may be present on the bus. The authorities arrive and a short spectrum was taken using a 2 x 2 portable NaI detector at a distance of 1 m from the source. A dose rate measurement was made at 1 m distance and this was 131 $\mu\text{Sv/hr}$.

A point source spectrum of ^{241}Am , ^{109}Cd , ^{137}Cs , ^{88}Y and ^{60}Co was taken at a distance of 10 cm from the detector face.

Note: a background contribution has been added.

Materials provided:

Two spectra, in a number of formats are provided.

Scenario_5_source.(range of formats) - the spectrum from the source on the bus.

Scenario_5_point.(range of formats) - spectrum of the point source taken earlier.