



Hon Stephen Robertson MP
Member for Stretton



Minister for Health

MI153688
MO: H/08/02594

Ms Anne Goddard
Email: anne.goddard@bigpond.com.au

Dear Ms Goddard

Thank you for your email dated 18 March 2008, regarding the disposal of smoke detectors.

As some of the issues you have raised fall within the responsibilities of the Honourable Neil Roberts MP, Minister for Emergency Services, I have taken the liberty of forwarding your email to him for consideration and direct reply to you.

The information provided by the Environmental Protection Agency regarding the disposal of smoke detectors containing a radioactive source is correct. A radiation hazard assessment undertaken by Queensland Health a number of years ago demonstrated that the safest and most cost effective way for homeowners or residents to dispose of their unwanted domestic smoke detectors is by placing them with their other domestic rubbish, not in the recycling bin, which is subsequently collected and disposed of in approved landfill sites. This route is only appropriate for smoke detectors containing up to 40 kBq of Americium 241.

The impost on the environment and public health due to the disposal of smoke detectors is not considered to be a hazard as the activity of the source is extremely small. The disposal of smoke detectors in landfill is also recommended at the national level by the Commonwealth's Radiation Health Committee, and it is also an accepted practice in many other countries, including the United Kingdom and New Zealand.

In relation to your broken smoke detector, the Americium 241 contained in smoke detectors emits both gamma radiation and alpha particles, provided the radiation component itself remains intact. There is no radiation hazard posed by the alpha radiation emitted by the Americium 241. Even if the radiation source was not contained in the smoke detector housing, the gamma radiation dose to a person, if the person stood one metre from the source for a period of one year, is negligible.

Further information about smoke detectors may be found on the Commonwealth's Australian Radiation Protection and Nuclear Safety Agency website at www.arpansa.gov.au/RadiationProtection/Factsheets/is_smokedetector.cfm.

19th Floor State Health Building
147-163 Charlotte Street Brisbane
GPO Box 48 Brisbane
Queensland 4001 Australia
Telephone +61 7 3234 1191
Facsimile +61 7 3229 4731
Email health@ministerial.qld.gov.au
Website www.health.qld.gov.au

Should you have any queries regarding my advice to you, Mr Simon Critchley, Director, Radiation Health, Environmental Health Unit, will be pleased to assist you and can be contacted on telephone (07) 3406 8006.

Yours sincerely

A handwritten signature in blue ink, consisting of a stylized 'S' followed by a long horizontal line.

STEPHEN ROBERTSON MP