

Incidents involving radioactivity



Learning lessons from the Litvinenko case

A radioactive substances regulation case study

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For any environmental incident involving radioactive substances, it is essential to act quickly and responsibly. Having the right expertise in the right place at the right time, with appropriate support ensured we were able to strongly influence the recovery from the radioactive contamination arising from the death of Alexander Litvinenko.

We are one of a number of organisations responsible for planning and responding to radiation incidents. We aim to protect people and the environment, in particular by ensuring that any radioactive waste is properly stored and safely disposed of.

We work with a number of organisations, including central government departments such as the Health Protection Agency, the Food Standards Agency and the Government Decontamination Service. Our role is to assess the impact of a radiation incident on the environment – water, air and land – and to advise on how the effects can be minimised.

We enlist the help of specialist contractors to carry out monitoring and sampling of the affected environment.

Our role in recovery

In November 2006, the Health Protection Agency announced that Alexander Litvinenko, a resident in London, had died from a high dose of polonium-210. A range of premises, including hotels and restaurants, as well as planes and buses, were contaminated with radioactivity.

As soon as the potential public health consequences of the incident began to emerge, our radioactive substances specialists began working with Westminster City Council, the Health Protection Agency, the Health and Safety Executive and others to shape a ‘recovery strategy’.

This framework set out a level of contamination, which if left as it was, would not, under any foreseeable circumstances, represent a hazard to people. This provided an important

guide for the clean up of premises affected. The framework also clarified who owned the waste and who was responsible for monitoring and assessing affected properties. It also provided guidance on dealing with radioactive contamination and how the work would be co-ordinated.

Forty-seven premises in London were actually or potentially contaminated so there was a wide range of sites that needed to be monitored and assessed. This work was led by the Health Protection Agency. Two sewage treatment works had received contaminated effluent through the London sewers. Our Process Management teams moved very quickly to arrange radiological monitoring and assessments. They also provided clear and simple guidance for specialist contractors, ensuring they cleaned up premises and disposed of radioactive waste to the highest possible standards.

We were able to make **our** environmental priorities the **shared** priorities of the organisations working together on the response. As Carol Attwood, Radiation Incident Planning Manager explains there were a number of factors, which helped us influence the recovery process. “Thorough preparation, effective partnership and being there from the start meant that we were able to respond successfully to the Litvinenko incident.”

Dealing with radioactive waste

Key to our role in responding to radiation incidents is ensuring radioactively contaminated waste is stored and disposed of correctly. We worked closely with other members of the Recovery Working Group throughout the clean-up operation. We developed standards and issued guidance for contractors dealing with contaminated waste, and steered development of the Council’s detailed framework for dealing with radioactive contamination.

“Thorough preparation, effective partnership and being there from the start meant that we were able to respond successfully to the Litvinenko incident.”

Carol Attwood Radiation Incident Planning Manager

We worked with Defra to issue an Emergency Radioactive Substances Authorisation (RSA) Exemption Order. This meant that permits for disposing of radioactive waste relating to the incident were not needed. This helped the Government Decontamination Service and its contractors remove radioactive waste quickly and transfer it to a safe location.

Successes and lessons learned

We provided a very strong, competent response to this incident, which was recognised by Defra and Westminster City Council. Indeed, the Council's framework document is seen as a model for managing future incidents involving radioactive contamination.

We were familiar with the people and organisations involved and had extensive experience of working with them in emergency exercises. Our thinking and approaches to recovery were well rehearsed. This helped our performance greatly, especially during the first week.

The continuity of staff in London allowed us to follow through on what was important and ensure our expectations were adopted by the multi-agency group.

As Carol concludes, "These lessons will inform our planning and preparation for future events, ensuring we continue to have the right expertise in the right place at the right time."

Further information

You can find out more about our role in responding to incidents involving radioactivity by reading our briefing note 'Incidents involving radioactive contamination'

<http://publications.environment-agency.gov.uk/pdf/GEHO0908BOKZ-E-E.pdf>.

We've also produced a case study which examines the response to a warehouse house in Quedgley, Gloucestershire. The warehouse contained approximately a quarter of a million domestic smoke detectors, which contain small quantities of radioactivity

<http://publications.environment-agency.gov.uk/pdf/GEHO0209BPDU-E-E.pdf>.

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