



### ‘UNUSUAL’ OBJECTS WITH RADIOACTIVE SIGNATURE

Date found	Area found	Photograph	Additional comments
02.03.2005	Dunnet beach		<p>Small stone-like object found wrapped within a tight ball of flotsam including seaweeds, string and plastic. SEPA gave permission to analyse the item using non-destructive methods only. The item was measured in the Dounreay laboratories and found to contain about 20,000 Bq of <sup>137</sup>Cs. The <sup>137</sup>Cs appeared to be present over the surface of the item rather than present as a single hot spot.</p> <p>The object was sent to an external laboratory for further geochemical analyses and a report submitted to SEPA. The external lab analyses show the item is composed of polyethylene. The origin of the <sup>137</sup>Cs contamination and of the substrate has not been established. <sup>137</sup>Cs is widely found in the environment as a result of fallout from weapons testing, the Chernobyl accident and discharges made under authorisations from the nuclear industry. Tests carried out by UKAEA would discount the activity on this object being related to the Chernobyl accident.</p>
15.12.2006	Sandside beach		<p>A plastic-like item was discovered entangled in flotsam and seaweed. The object appears to be made of a dark-coloured plastic and seems to be partly melted or burnt. It measures about 8" x 3" and is over 1" thick. Following initial analysis, the object was found to contain <sup>137</sup>Cs at a level of about 4,600 Bq which was found to be more concentrated in the central area. Further tests have been discussed with Sandside Estate and are being carried out.</p>

Date found	Area found	Photograph	Additional comments
25.04.2007	Dounreay foreshore		<p>A stone triggered the Groundhog alarms and further investigations (with exploranium GR130) confirmed the presence of Caesium 137.</p> <p>Further details:</p> <ul style="list-style-type: none"> <li>• Size 7" x 6" x 1"</li> <li>• Co-ordinates E298280 N966954</li> <li>• Location Close to the burn bed</li> <li>• EP15 readings 15 CPS beta/gamma 5 CPS gamma</li> <li>• RO2 readings No response above background.</li> </ul>
12.09.2007	Dounreay foreshore		<p>On completion of the survey on the Dounreay West foreshore four items were recovered and further investigation carried out:</p> <ul style="list-style-type: none"> <li>• Stone with approximate dimensions of 15 x 12 x 6 cm showing a reading of 60 CPS beta/gamma.</li> <li>• Piece of concrete with approximate dimensions 14 x 14 x 8 cm, showing a 6 CPS beta/gamma</li> <li>• Stone with approximate dimensions 30 x 24 x 8cm, showing a reading of 15 CPS beta/gamma.</li> <li>• Stone of triangular shape (5 cm sides) showing a reading of 50 CPS beta/gamma</li> </ul>
18.03.2007	Dunnet beach		<p>During reassurance monitoring a very lightly contaminated item was detected and taken back to site for further analysis. The level of radioactivity were in the 'minor' category which is recognised as not being of radiological concern.</p>