Radioactive Particles on West Cumbrian Beaches  
- the case for the provision of signs to advise the public - 

A Review by CORE [Cumbrians Opposed to a Radioactive Environment]  
August 2013
Why the Review & Who for?

- Challenge Uncertainties in HPA advice
  - Unknowns of Offshore particles
  - Finds increase and reduced monitoring
  - CORE’s snap-shot beach poll at St Bees
  - Use of beach signs elsewhere in UK.

HPA[Public Health England] and COMARE
The Environment Agency and Sellafield Ltd
Copeland Borough Council
HPA Advice

‘the overall health risks to beach users are very low’

• ‘cannot rule out that some relatively high activity objects may be present but remain undetected’

• ‘uncertainties in the estimate of the number of objects present can be quite large’

• ‘inevitable uncertainties in estimation of the likelihood that beach users encounter an object while using the beaches’
Offshore Particles

‘not sufficiently well known to reassure regulators and other stakeholders that health risks to beach users are ALARP…’

• ‘possibility that particles with very much higher levels are present ... and have not been detected to date’ [ingestion of highest alpha-rich particle found equivalent to dose to adult of ~ 20mSv]

• ‘the inherent uncertainty in particle activity distribution and likelihood of encounter unknown’

• ‘uncertainty regarding future risks from seabed particles cannot currently be resolved’
Beach Monitoring
increased finds & reduced monitoring [source: Sellafield Ltd]
Beach Monitoring

some findings of assessment commissioned by CORE

[Research Analyst Peter Morgan]

- Increase in particles per hectare since 2008 from 0.69 to 1.25
- Decrease in area monitored since 2008 from 352 to 213 ha.
- Particle finds increased from 7 (2006/07) to 252 (2011/12)

- Figures subject to change since Aug 2010.
Beach Poll at St Bees

- prime example of a high-occupancy beach
- Increase in particles as area monitored has reduced
- Easy public access
- Routinely hosts school and other events

![Graph showing St Bees Hectares Monitored and St Bees Finds per Hectare from 2008/09 to 2011/12]
St Bees Beach 2007
43 people built 3500 sandcastles over 4000 sq.m

from CEFAS Radiological Habits Survey: Sellafield Beach Occupancy, 2007
Beach Poll at St Bees  [7th July 2013]
92 adults polled (70 accompanied 44 children)

- 37 ‘local’ adults – of whom 26 were aware
- 55 ‘non local’ - only 1 aware
- 3 said no to signs – all local and aware
Lack of Information
“information readily available”

- Beach Monitoring and/or Particle Reports not available in local libraries
  [St Bees, Seascale, Gosforth, Maryport, Millom, Whitehaven, Workington]

- Absence of monitoring during holiday periods

- Web Sites not user-friendly

- Use of libraries/websites not the full answer - pre supposes visitors will check first
Use of Beach Signs

‘the habits of people using the beach did not appear to be affected by the provision of this information’

[Natural Scotland and SEPA. Radiological Habit Survey, Dounreay 2008].

Public Notice
Dalgety Bay

Mainly for general hygiene reasons, please wash your hands if you handle material on the beach and do not remove any material including fish and shellfish.

Radioactive materials, believed to be paint from luminous dials, have been found on this beach.

There is low risk to the public.
For further information see http://www.show.scot.nhs.uk/livinginfife/
Search - Dalgety Bay Contamination

Supported by FIFE Council & SEPA

- Different materials but same principle – advisory not alarmist
West Cumbrian Beaches

- Tides, Currents, No Railings, Unstable Cliffs, Submerged Objects, Sun Burn, Seaweed, Dogs ...

... but not particles?

- The right to know and right to make a choice
Update
miscalculation of areas monitored

- PHE admits increase of up to 30% in potential for beach users to come into contact with radioactive object - but ‘no change to advice’ and no need to limit beach access

- CORE Review calls for:
  - 2011/12 HPA advice to be validated against recent events
  - Advisory signs on beaches irrespective of very low risk - as a basic human right ‘to know’
  - Does not call for limiting beach access