

Redacted correspondence 1

**From:** HPA  
**Sent:** 31 October 2011 09:52  
**To:** DH  
**Subject:** FW: Dalgety Bay

Dear

As discussed on the phone, [REDACTED] response to [REDACTED]

The emails attached to this email give HPA's Comms' line and a copy of the COMARE letter.

Regards,

**From:** HPA  
**Sent:** 24 October 2011 15:54  
**To:** SEPA  
**Cc:**  
**Subject:** RE: Dalgety Bay

Dear

The Health Protection Agency (HPA) supports the approach that SEPA has taken to manage the beach contamination at Dalgety Bay including the current precautionary, interim measure taken to cordon off the area of the foreshore where the recent object with a <sup>226</sup>Ra content of 13 MBq was found.

It should be noted that this object is not representative of the large number of objects that have been found on the beaches over a number of years, which have much lower activity concentrations. Therefore, HPA supports SEPA's view that further monitoring of the beach should be carried out and any objects containing significant levels of <sup>226</sup>Ra removed. HPA also advises that characterisation of the 13 MBq object and a sample of other retrieved objects is made (including object size, solubility, radionuclide content, distribution of contamination on or within the object and measured skin dose rate).

This further work together with information on the extent to which different groups of people use the beach area, should enable a full public health risk assessment to be performed. HPA advises that a full public health risk assessment is performed, noting that such a public health risk assessment must take account of the likelihood that different groups of beach users could come into contact with objects of this level of activity.

Please contact me should you require any further views on this matter.

Regards

**From:** SEPA  
**Sent:** 14 October 2011 16:19  
**To:** HPA  
**Subject:** RE: Dalgety Bay

Dear

On Wednesday, SEPA recovered a source from Dalgety Bay which had an indicative in field activity of 13 MBq Ra-226 (which is an order of magnitude greater than anything previously reported). As the majority of area around where the source was recovered has yet to be monitored by SEPA we could not exclude the possibility of further similar sources being present. As a precautionary and interim measure we have asked Fife Council to erect further signs and demarcate the area with tape until SEPA has been able to complete the survey of the area (and remove any significant sources detected).

We would therefore like to ask HPA's advice on this matter and whether any further actions are needed

**From:** DH  
**Sent:** Tuesday, November 29, 2011 06:01 PM  
**To:** HPA  
**Subject:** Re: FW: Radioactive Contamination on Dalgety Bay Beach

Dear All,

I would be grateful if we could copy this to Chairman of COMARE so that he is aware of HPA's recommendations and actions.

**From:** HPA  
**Sent:** 28 November 2011 17:31  
**To:** SEPA  
**Cc:**  
**Subject:** Radioactive Contamination on Dalgety Bay Beach

Please find attached a letter from [REDACTED].

Regards

[REDACTED]

**From:** HPA  
**Sent:** 22 November 2011 20:30  
**To:** DH  
**Cc:**  
**Subject:** Re: Dalgety bay - this weekend's results

Thanks. Shall I come over at 3:30?

Regards

**From:** DH  
**Sent:** Tuesday, November 22, 2011 08:16 PM  
**To:** HPA  
**Cc:**  
**Subject:** RE: Dalgety bay - this weekend's results

- I am in a meeting all the morning until early afternoon but am free between about 15.00 and 16.30 and at Richmond House - so you could either drop in or give me a call.

**From:** HPA  
**Sent:** 22 November 2011 17:07  
**To:** DH  
**Subject:** Re: Dalgety bay - this weekend's results

██████, ████████ and ████████ have the up-to-date information. I have been keeping ████████ up-to-date. I'm sure ████████ would be happy to share the current HPA position. There was a multi-agency meeting yesterday and a Dalgety Bay forum tomorrow.

**From:** DH  
**Sent:** Tuesday, November 22, 2011 05:01 PM  
**To:** HPA  
**Subject:** Dalgety bay - this weekend's results

I have had communications with ████████ today about the recent results from particles found this weekend at Dalgety Bay. Am I right to presume

that HPA will be reviewing its recent advice that it had advanced prior to the recent finds?

**From:** HPA  
**Sent:** 14 November 2011 19:00  
**To:** DH  
**Subject:** Re: Dalgety Bay Q&A brief

Thank you

**From:** DH  
**Sent:** Monday, November 14, 2011 06:41 PM  
**To:** HPA  
**Cc:**

**Subject:** Re: Dalgety Bay Q&A brief

██████████, no worries here. My phone has had to be on mute for quite a lot of the day and I have been between buildings too. Thanks to your earlier pre-brief I have picked up the background and am content with the HPA response and Q&A.

From: HPA

11/11/2011 18:44

To DH

cc

Subject Dalgety Bay Q&A brief

Dear ██████████

I have been trying to phone ██████████ to brief her regarding Dalgety Bay, without success. I have sent her the various texts we agreed today, but I only copied you in on one of my two emails. So, just in case ██████████ is out of the office, here is the

missing text – the updated Q&A brief which will be hosted on SEPA's web site.

Regards,

From: **HPA**  
Sent: 26 January 2012 18:43  
To: **MOD**  
Cc:  
Subject: RE: Ministerial Visit to Dalgety Bay

Dear

As you will have seen from my previous email, we will not be in a position to send out the scoping assessment until Feb 1st. I appreciate that this is unfortunate timing with regard to the visit of your Minister, but, owing to the limited availability of key staff, I'm afraid there is no possibility of us being able to finalise our assessment any earlier.

I wish you all the best with the visit.

I confirm that I have not shared this information beyond the core Dalgety Bay team here at CRCE.

From: **MOD**  
Sent: 26 January 2012 08:54  
To: **HPA**  
Cc:  
Subject: Ministerial Visit to Dalgety Bay

Please restrict this information to HPA staff at present.

Is there any chance of us having sight of or an indication of the outcome of your scoping assessment on Dalgety Bay before one of our Ministers visits the area on 31 Jan or at least advice on whether you will be updating the advice on the HPA web site? Alternatively a statement on what HPA is doing and when and how the report will be issues?

Appreciate there are many issues to be considered but some concern about possible PR implications.

From: **HPA**  
Sent: 25 January 2012 17:59  
To: **SEPA, DB&H Community Council; Fife Council); Scottish Govt; FSA**  
Subject: RE: DBPAG - Note of first meeting

Sorry for the delay in providing comments. [REDACTED] and I have a few wording changes for clarification and a couple of comments which are marked on the attached.  
Regards

**From:** HPA  
**Sent:** 09 February 2012 17:03  
**To:** MOD  
**Cc:**  
**Subject:** RE: DALGETY BAY RISK COMPARISONS

Dear

If you're only looking at 'yardstick' info, rather than commenting where the Dalgety Bay risk falls, then why don't you reference Appendix C (I think) of the Weightman post-Fukushima report – that has risks in context.

As for whether MoD can task HPA directly, the appropriate way would be for someone of level (Civil Service Band 4) to write formally to [REDACTED] with the request.

**From:** MOD  
**Sent:** 09 February 2012 16:46  
**To:** HPA  
**Subject:** DALGETY BAY RISK COMPARISONS

As discussed I really don't want to do this, but if my back's against the wall this is my "best guess" so I'm sending it for info.

Lifetime risk of fatal cancer from inadvertent inhalation or ingestion of resuspended material from one year's occupation at Dalgety Bay 1 in 10000000

Lifetime risk of fatal cancer from one year's exposure to typical UK background radiation 1 in 7700

Lifetime risk of death from a road accident in the UK under 2010 driving conditions 1 in 500

Annual risk from death as a result of a UK road accident in  
2010  
32 000

1 in

██████ has declined to task you so I've written to ██████ saying what's been asked for, that I think HPA are best placed to do this and that HPA need tasking from him.

Just in case I get asked the question – is there any reason why MOD can't task HPA direct?

Comments and reasons why it's all a silly idea more than welcome.

Regards

**From:** FSA

**Sent:** Thursday, November 17, 2011 05:18 PM

**To:** HPA

**Subject:** RE: Dalgety Bay Strategic Meeting - draft notes of telecon 14/11/11

An update for your note re whether bait could be covered by a FEPA – initial soundings from our solicitors indicate that it probably could as it would be regarded as a feedstuff under Part 1(3) of the Act.

**From:** HPA

**Sent:** 17 November 2011 16:38

**To:** @scotland.gsi.gov.uk; (NHS FIFE); @fife.gov.uk; FSA

**Cc:**

**Subject:** Dalgety Bay Strategic Meeting - draft notes of telecon 14/11/11

Dear All,

please find attached brief notes of our telecon on Monday. Sorry, they're a bit rushed, so feel free to advise changes!

**From:** HPA  
**Sent:** 09 November 2011 12:11  
**To:** FSA  
**Subject:** Re: Dalgety Bay meetings

Thank you

**From:** FSA  
**Sent:** Wednesday, November 09, 2011 12:10 PM  
**To:** HPA  
**Subject:** RE: Dalgety Bay meetings

I can make both dates.

**From:** HPA  
**Sent:** 25 October 2011 12:43  
**To:** NHS FIFE  
**Cc:**  
**Subject:** RE: Dalgety Bay - sources recovered

Dear

Thank you for your inquiry. I believe [REDACTED] may have been in contact with you regarding a proposed meeting between CRCE experts and representatives from relevant Scottish Agencies, including yourself? I have been actioned to convene this meeting, and we can certainly discuss the public health risks in more detail at that meeting.

However, I fully understand your need for prompt interim advice regarding the HPA's view on the public health risks. [REDACTED], from SEPA, contacted (Director, CRCE) on 14<sup>th</sup> October requesting our advice. I am therefore copying you his reply:

*The Health Protection Agency (HPA) supports the approach that SEPA has taken to manage the beach contamination at Dalgety Bay including the current precautionary, interim measure taken to cordon off the area of the foreshore where the recent object with a <sup>226</sup>Ra content of 13 MBq was found.*

*It should be noted that this object is not representative of the large number of objects that have been found on the beaches over a number of years, which have much lower activity concentrations. Therefore, HPA supports SEPA's view that further monitoring of the beach should be carried out and any objects containing significant levels of <sup>226</sup>Ra removed. HPA also advises that*

*characterisation of the 13 MBq object and a sample of other retrieved objects is made (including object size, solubility, radionuclide content, distribution of contamination on or within the object and measured skin dose rate).*

*This further work together with information on the extent to which different groups of people use the beach area, should enable a full public health risk assessment to be performed. HPA advises that a full public health risk assessment is performed, noting that such a public health risk assessment must take account of the likelihood that different groups of beach users could come into contact with objects of this level of activity.*

In response to your specific question about public health risks, given the precautionary actions already taken by SEPA and our current understanding of the characteristics of the high activity object found (in particular, that it was too large to be inadvertently ingested) , I can confirm that HPA's judgement continues to be that the risk to public health from particles discovered at Dalgety Bay is low. We do, however, urge further detailed investigation, via a full public health risk assessment, to better inform the public health advice.

I hope this helps in the short term. However, please do feel free to contact me further, if you need to.

**From:** (NHS FIFE)

**Sent:** 25 October 2011 09:30

**To:** HPA

**Cc:**

**Subject:** RE: Dalgety Bay - sources recovered

I note that the recent press release from SEPA includes reference to their web site which includes health advice. This states:

### **What is the risk to human health?**

If someone comes into contact with one of the radioactive items found at Dalgety Bay they may be affected in several ways. Skin contact may cause radiation burns, breathing in radioactive material may cause damage to the lungs and respiratory tract and ingesting radioactive material may cause damage to the stomach and digestive system. In addition, exposure to radioactivity may cause and increased risk of the person developing cancer.

Was the HPA involved in producing this advice? Previous HPA advice was that the risk was low but the current advice above suggest otherwise.

I would appreciate a rapid response given that questions are being asked by Ministers.

Regards

**From:** HPA  
**Sent:** 25 October 2011 10:03  
**To:** NHS FIFE  
**Cc:**  
**Subject:** FW: Dalgety Bay - sources recovered

Dear

I will get back to you on this lunchtime-ish, if that's okay.

**From:** NHS FIFE  
**Sent:** 25 October 2011 09:30  
**To:** HPA

**Cc:**  
**Subject:** RE: Dalgety Bay - sources recovered

I note that the recent press release from SEPA includes reference to their web site which includes health advice. This states:

### **What is the risk to human health?**

If someone comes into contact with one of the radioactive items found at Dalgety Bay they may be affected in several ways. Skin contact may cause radiation burns, breathing in radioactive material may cause damage to the lungs and respiratory tract and ingesting radioactive material may cause damage to the stomach and digestive system. In addition, exposure to radioactivity may cause an increased risk of the person developing cancer.

Was the HPA involved in producing this advice? Previous HPA advice was that the risk was low but the current advice above suggest otherwise.

I would appreciate a rapid response given that questions are being asked by Ministers.

**From:** NHS FIFE  
**Sent:** 24 October 2011 17:11  
**To:** HPA  
**Cc:**  
**Subject:** FW: Dalgety Bay - sources recovered

I should be grateful for advice on who is involved in the Dalgety Bay radiation issue. Previously I worked with [REDACTED] but [REDACTED] has retired. [REDACTED] was also involved but my emails to [REDACTED] are not being received – has he moved on?

**From:** NHS FIFE

**Sent:** Monday, October 24, 2011 5:02:01 PM

**To:** HPA

**Cc:**

**Subject:** RE: Dalgety Bay - sources recovered

**Auto forwarded by a Rule**

Hi

We have received a request from Gordon Brown MP. As you suggested in an earlier email the results from health studies on cancer incidence presented to the Forum in 2005 did not show any increase in cancer rates in the local population. The most recent data covers 1975-2002. We are in the process of updating this information and will report back as soon as we have more recent results.

Regards

**From:** HPA

**Sent:** 16 December 2011 13:18

**To:** NHS FIFE

**Cc:**

**Subject:** It would be good to talk!

Dear [REDACTED],

From your recent email, it is clear to me that you were sent the monitoring strategy paper by [REDACTED] without any context. He had agreed to explain to you last week that we were developing the paper, and why. Clearly, other pressures precluded this.

I therefore would value an opportunity to discuss the reasons for developing this paper. I'm on my mobile, but I can never remember the number! So if you would send me yours and suggest a suitable time to talk, I'll phone you.

Thanks

**From:** NHS FIFE

**Sent:** Wednesday, November 09, 2011 01:09 PM

**To:** HPA

**Cc:**

**Subject:** RE: Dalgety Bay meetings

I shall be available for both meetings.

Regards

**From:** HPA

**Sent:** 09 November 2011 12:05

**To:** @scotland.gsi.gov.uk; FSA; NHS FIFE; MANAGEMENT EXECUTIVE,  
SCOTTISH OFFICE HOME & HEALTH;

**Subject:** Dalgety Bay meetings

Dear [REDACTED]

Firstly many thanks for supplying your availability.

I have looked at available dates and wish to suggest the following way forward:

**1. Monday 14 November at 12.30 pm**

Initial discussions to be held by teleconference. Dial in details are as follows

Dial: [REDACTED]

Participant code: [REDACTED]

Unfortunately this meeting will only be for an 1 hour maximum due to other commitments of some participants.

**2. Monday 21 November at 2.00 pm**

Face to face meeting at Scottish Government offices

[REDACTED]: Would you be kind enough to confirm meeting room and location

Having two meetings will hopefully ensure we have clarity on our agreed strategic stance before the 22 November Forum meeting, as it allows time for the gathering of additional information, if required.

If for any reason you are no longer available on these dates then please let me know as soon as possible.

Many thanks

**From:** HPA

**Sent:** 09 November 2011 10:36

**To:** NHS FIFE

**Cc:**

**Subject:** Re: SEPA press releases

Dear

Please pause on this. We need to take stock and involve our Comms team. I am uncomfortable that HPA is being pushed into making detailed statements on public health risk assessment without being sure we have all the most recent technical data. Too much of the information we are receiving is qualitative rather than quantitative.

As you know, I am now pushing hard for the strategic meeting to happen asap. Let's try to get some strategic agreement at that meeting, before being drawn into too much press frenzy.

I'll get back with a more specific response to your attachment later today.

Regards,

**From:** NHS FIFE

**Sent:** Wednesday, November 09, 2011 09:00 AM

**To:** HPA

**Subject:** SEPA press releases

■■■■ and ■■■■

I raised concerns at the meeting on Monday that the SEPA press releases require additional information on the balance of risk in order to inform but not frighten the public. I have drafted a section as per my understanding of the discussion on risk at the meeting. Are you happy for me to send this to SEPA comms for inclusion in future press releases?

Regards

**From:** HPA  
**Sent:** Tuesday, October 25, 2011 06:09 PM  
**To:** NHS FIFE  
**Cc: Subject:** Re: Dalgety Bay - sources recovered

Dear [REDACTED]

Sorry for the second email. Would it be possible for you to forward the COMARE letter to me?

Regards

**From:** HPA  
**Sent:** Tuesday, October 25, 2011 06:05 PM  
**To:** NHS FIFE

**Cc:**  
**Subject:** Re: Dalgety Bay - sources recovered

Dear [REDACTED]

You have my complete sympathy! As the issues aren't straightforward, I think it would be more helpful if I phoned you tomorrow - when would suit you?

[REDACTED] is the Director of CRCE.

**From:** NHS FIFE  
**Sent:** Tuesday, October 25, 2011 04:43 PM  
**To:** HPA  
**Cc:**  
**Subject:** RE: Dalgety Bay - sources recovered

Hi

I confess I am a bit confused about all the agencies involved and the mixed messages.

I have just received a copy of a letter from COMARE stating that they are concerned about the risk to public health but the advice below is that the large particle found is

not representative of previous finds – has this situation changed? What advice should the public receive about historical risk given the larger particle find? We are currently receiving queries about cancer incidence and possible association with the beach.

*I have spoken to [REDACTED] – here is a summary of our discussion - To clarify our phone call, it wasn't my impression that you had been invited to yesterday's meeting, but rather that, in my subsequent discussions with the HPA, [REDACTED] indicated that the HPA would be seeking to set up a meeting with Fife NHS Board and the LA regarding the needs for a risk assessment, further to the note from [REDACTED] to you on 25<sup>th</sup> October in which they 'urge further detailed investigation, via a full public health risk assessment, to better inform the public health advice'.*

*Neither was it my impression that you would be asked to undertake the risk assessment. That would properly be the function of the HPA, but clearly those with statutory duties for health protection would have an interest in ensuring that this was satisfactorily pursued. A related issue is that SEPA indicated a belief that significant residual contamination might be present at the site where the 13mBq object was recovered recently.*

*Re yesterday's meeting, as you say, on the basis of the recent survey work, SEPA currently believe that a RCL designation would be justifiable (this might be subject to further confirmation), but the general consensus was that a solution that obviated this need would be preferable.*

SEPA have approached HPA directly for advice because HPA are the specialist radiation health advisors on the Dalgety Bay Forum – has SEPA asked the HPA to undertake the risk assessment?

Who is [REDACTED]?

Regards

**From:** NHS FIFE

**Sent:** 25 October 2011 13:24

**To:** HPA

**Subject:** RE: Dalgety Bay - sources recovered

Thanks [REDACTED] – who undertakes the full public health risk assessment?

**From:** HPA  
**Sent:** 14 November 2011 09:01  
**To:** @scotland.gsi.gov.uk  
**Cc:**  
**Subject:** RE: Dalgety Bay telecon 14/11/11

Thanks, [REDACTED]. Helpful suggestions. I'll hold fire on re-circulating the agenda to give time for other comments.

**From:** @scotland.gsi.gov.uk  
**Sent:** 14 November 2011 08:58  
**To:** HPA, @fife.gov.uk; @scotland.gsi.gov.uk; @foodstandards.gsi.gov.uk; @sepa.org.uk;  
**Cc:**  
**Subject:** RE: Dalgety Bay telecon 14/11/11

It might be helpful to distinguish two things here – our need for a short term public health risk assessment and longer term management which will also involve health risk assessment – some small changes suggested to agenda to reflect this.

Thanks

**From:** HPA  
**Sent:** 14 November 2011 08:38  
**To:** @fife.gov.uk; @foodstandards.gsi.gov.uk; @sepa.org.uk;  
**Cc:**  
**Subject:** Dalgety Bay telecon 14/11/11  
**Importance:** High

Dear All,

Please find attached a draft agenda for this lunchtime's telecon. If you wish to suggest changes to the agenda before the telecon, please let [REDACTED] and [REDACTED] know. I have tried to list all those I think are attending in the agenda – if this is incorrect, again please let [REDACTED] or [REDACTED] know.

A reminder of meeting time and dial in details:

**12:30 – 13:30**

**Dial:** [REDACTED]

**Participant code:** [REDACTED]

**From:** HPA

**Sent:** 11 November 2011 18:22

**To:** @scotland.gsi.gov.uk'; NHS FIFE , @dh.gsi.gov.uk';

**Cc:**

**Subject:** HPA advice to SEPA and HPA press response to Rob Edwards

Dear All,

Forgive me if a number of you have already received these texts, but, given the email problems we've been experiencing today, I wanted to make sure you all had received them.

I therefore attach a copy of the letter [REDACTED] sent to SEPA earlier today, and the response we made to [REDACTED] enquiries (he is from the [REDACTED]).

**Press response to enquiries from [REDACTED], 11/11/11**

Dr [REDACTED], Director of the HPA's Centre for Radiation, Chemical and Environmental Hazards, said: "In light of recent finds at Dalgety Bay, the HPA has updated some aspects of the question and answer material produced for members of the public.

"The HPA continues to support SEPA's precautionary advice and the actions it has taken at Dalgety Bay. These steps will have reduced the risk of public exposure to radioactive material. The HPA has recommended to SEPA, as the regulatory authority, to commission a public health risk assessment.

“The HPA continues to advise, as it has done for some time, that members of the public using the area should not remove material from the beach. Anyone who has been handling any material while using this beach, should ensure that they wash their hands when they leave. This advice is flagged on signs posted at the beach.

“From the data seen so far HPA advice continues to be that the overall health risk is likely to be low. Whilst there is a risk of health effects if a radioactive object is swallowed, breathed in or is in prolonged contact with the skin, the chance of coming into contact with a radioactively contaminated object on the beach is small.

“Subject to any local restrictions in place, there is no reason for beach users to stop using the area. As a precaution parents may wish to consider stopping their children digging in the sand until more detailed monitoring has been carried out.

“The MOD has not been in touch with HPA about this health advice.”

Letter to [REDACTED] at SEPA sent 15.37 on 11/11/11

Dear [REDACTED]

Thank you for providing additional quantitative information regarding the situation at Dalgety Bay. Following assessment of this, together with the previous information available to us, our advice continues to be that the precautionary actions SEPA has taken are appropriate for protecting public health.

We continue to advise you that a public health risk assessment should be performed, noting that this should take account of the likelihood of different groups of beach users coming into contact with radioactive objects. We note that the high activity object recently detected and retrieved by SEPA could potentially give a radiation dose that exceeds the criteria that HPA has advised EA should trigger an urgent review of the public health risks for radioactive objects on beaches on the West Cumbrian coast.

To support the public health risk assessment, we now recommend that an urgent review of the current monitoring strategy and monitoring protocols is undertaken to ensure that monitoring surveys provide sufficient, timely and appropriate data for public health protection purposes.

On the basis of the current available evidence our advice continues to be that the overall health risk is likely to be low. Whilst there is a risk of health effects if a radioactive object is ingested or is in prolonged contact with the skin, the likelihood of coming into contact with a radioactively contaminated object on the beach is small. This low risk can be reduced even further by washing hands after leaving the beach and by not removing any objects found on the beach, as advised on the beach signage. Provided these precautions are followed, we consider there is no health risk to people who walk along the beach or the neighbouring footpath and for people sailing. However as a precaution parents may wish to consider stopping their children digging in the sand until more detailed monitoring has been carried out.

We can discuss this further at our teleconference on Monday.

**From:** HPA  
**Sent:** 11 November 2011 18:07  
**To:** @scotland.gsi.gov.uk'; NHS FIFE;  
**Cc:**  
**Subject:** Dalgety\_Bay\_QA\_111111\_0\_e.docx

Dear All,

I attach the updated HPA Q&A brief regarding the radiation health aspects of public use of Dalgety Bay. This has been discussed with [REDACTED] at SEPA, and will go onto the SEPA website tonight.

You will note from this email, that HPA's email appears to be working again.

Regards,

**Health Protection Agency**  
**RADIOACTIVITY AT DALGETY BAY**  
**Updated Q&A BRIEF**

11 November 2011

**Q1. When and where was radioactive material first discovered on the beach at Dalgety Bay?**

Radioactive material was first found in Dalgety Bay in 1990. Details of the distribution are found on the SEPA website ([www.sepa.org.uk](http://www.sepa.org.uk)).

**Q2. Where has the radioactive material on the beach at Dalgety Bay come from**

The radioactive material is believed to come from the disposal by burning of the remnants of unwanted wartime aircraft. The radioactivity is likely to have come from their flight instruments and dials that were painted with radium to make them luminous in the dark.

**Q3. What is the form of the radioactive material?**

The radioactive material on the beach consists of discrete items (not a uniformly distributed “dust”) containing material that emits radiation. The radioactive material is radium, which occurs naturally but not in the form and quantities found. Some radioactive items are found on the surface but others are buried. There is a range of sizes from relatively large lumps of clinker-like material to smaller particles, about the size of a grain of sand.

**Q4. Will I be exposed to radiation if I go on the beach, how can I prevent this?**

Subject to any local restrictions in place, there is no reason for beach users to stop using the area eg for walking or sailing. As a precaution parents may wish to consider stopping their children digging in the sand.

HPA recommends that you do not remove material from the beach. HPA also recommends washing hands on leaving the beach area, especially if you have been handling material there, and before eating.

**Q5. What are the health risks from the radioactivity on the beach?**

From the data seen so far HPA advice continues to be that the overall health risk is likely to be low. Whilst there is a risk of health effects if a radioactive object is swallowed, breathed in or is in prolonged contact with the skin, in general the chance of coming into contact with a radioactively contaminated object on the beach is small.

However, the removal of artefacts or behaviours that are likely to lead to significant amounts of beach material being retained on exposed skin, could increase the risk. Therefore any local advice should be followed.

**Q6. I have spent time on the beach, should I go to my doctor?**

You do not need to go to your doctor.

Whilst there is a risk of health effects if a radioactive object is swallowed, breathed in or is in prolonged contact with the skin, in general the chance of coming into contact with a radioactively contaminated object on the beach is small.

There are no medical tests that can detect this low level of exposure or distinguish it from natural background radiation.

**Q7. My dog has been on the beach, picking up stones, sticks, etc. Is it likely to be affected?**

The HPA cannot comment on animal health.

**Q8. Should all access to the beach at Dalgety Bay be restricted?**

No. Follow the information provided on the beach signage.

**Q9. I have taken sand / shells / stones / artefacts from the beach. Am I likely to be affected and what should I do?**

It is unlikely that sand, shells or stones taken from the beach will have significant radioactivity. If you have any concerns about artefacts removed please contact SEPA.

**Q10. What should I do with shoes and clothing that I usually take to the beach?**

No special action is required. It is unlikely that there will have been any contact with a radioactive object and even less likely that it might have stuck to shoes or clothing.

**Q11. Should picking litter in the area on and around the beach be suspended?**

The risk of radioactive material, especially the most active, becoming attached to litter is extremely remote. There is a much greater general hygiene risk associated with picking litter but properly handled with appropriate hygiene precautions, e.g. gloves, the risk to health is very small.

**Q12. My child has been on the beach at Dalgety Bay. Are they at greater risk?**

Normal activities at Dalgety Bay are no more risky for children than anyone else in the population. Since children are more likely to dig at beaches, as a precaution parents may wish to consider stopping their children digging in the sand.

**Q13. I have had cancer treatment, would that put me at greater risk if I visited Dalgety Bay?**

Normal activities at Dalgety Bay are no more risky for cancer patients, or patients taking any particular types of medication, than anyone else in the population. The advice on the beach signage should be followed by everyone.

**Q14. What should I do if I have a skin problem after being on the beach at Dalgety Bay?**

It is extremely unlikely that any skin condition would have been caused by radioactive object at Dalgety Bay. However, as with any medical problem, if you are concerned you should seek your GP's advice.

**Q15. What is radiation?**

Radiation is energy that travels in the form of invisible waves and microscopic high speed particles. Most of the radiation we are exposed to comes from natural sources. For more information see HPA website ([www.hpa.org.uk](http://www.hpa.org.uk)).

**Q16. What is "background radiation"?**

We are all exposed to "Background radiation" due to small quantities of radioactive material in the natural environment (soil, food, water and air) and penetrating rays from outer space.

**Q17. How can you detect radiation?**

Radiation cannot be detected by the human senses. Electrically operated instruments are usually used to detect and measure radiation. The most common portable instruments contain a Geiger-Mueller (GM) tube or scintillation probe.

**Further information can be obtained from HPA Comms on 01235 822745.**

**From:** HPA

**Sent:** 11 November 2011 18:30

**To:** @scotland.gsi.gov.uk';

**Cc:**

**Subject:** RE: IMMEDIATE - Dalgety Bay meetings

Dear

Pleased to know you will be joining us.

By copy of this email, I'm letting [REDACTED] know.

Regards,

**From:** @scotland.gsi.gov.uk

**Sent:** 11 November 2011 11:32

**To:** HPA

**Cc:**

**Subject:** IMMEDIATE - Dalgety Bay meetings

**Importance:** High

Just to let you know that I am now involved with [REDACTED] in all of this from a health policy angle and will be attending both meetings noted below.

[REDACTED] has forwarded the latest emails from NHS Fife to SEPA copied to you. I have now spoken to both [REDACTED] and things have hopefully settled down a bit. [REDACTED] is reassured with both [REDACTED] response and my discussion with her about our telecom yesterday with SEPA about the public health aspects.

In a nutshell SEPA are concerned about conducting a full public health risk assessment now as they feel the situation is too fluid in terms of the findings of particles and establishing a clearer position about the source material. They are focussing on discussions with the MOD about the further work required to determine this fully. However, they accept that from a public health angle we (and NHS Fife) have a need to establish now (and for the interim period before further info is available on the source) whether we are taking sufficient action to protect the public. The teleconference on Monday and meeting on the 21<sup>st</sup> will be integral to establishing an acceptable way forward. In terms of commissioning any work the HPA can offer to do now, I believe we (SG Health) may have to take on that role and fund the work using our established MOU process. I am consulting lawyers today to ensure that there are no problems with this approach.

I know that [REDACTED] has just spoken to you and asked that you update and publish revised HPA Q&As today. We will need to share those with Scottish Ministers this afternoon prior to the weekend. Very grateful if you could let me know the timescale

and copy them across to myself and [REDACTED] (copied above) who will take this forward today as [REDACTED]

**From:** HPA  
**Sent:** 14 November 2011 12:06  
**To:** @scotland.gsi.gov.uk'; @fife.gov.uk; @foodstandards.gsi.gov.uk; @sepa.org.uk;  
**Cc:**  
**Subject:** RE: Dalgety Bay telecon 14/11/11  
**Importance:** High

Dear All,

Please find version 0.b of the Agenda attached.

Regards,

### Multi-Agency Dalgety Bay Coordination Telecon, 14/11/11

#### Draft Agenda

**Attending:**

Scottish Government: [REDACTED] (chair), [REDACTED], [REDACTED],  
[REDACTED]

SEPA: [REDACTED]

NHS Fife: [REDACTED]

LA Fife: [REDACTED]

FSA: [REDACTED]

HPA-CRCE: [REDACTED]  
[REDACTED]

## **1. Sharing and Update**

- Scottish Govt
- SEPA
- HPA
- FSA
- NHS Fife
- LA Fife

## **2. Management Strategy**

- Scoping public health risk assessment – short term
- Review of Monitoring strategy and monitoring protocols
- Long term management strategy and public health risk assessment
- Funding
- Dealing with press interest

## **3. Next steps**

- Meeting on Monday 21<sup>st</sup> Nov
- Actions

## **4. AoB**