

## Email chain 1

**From:** <redacted>  
**Sent:** 02 April 2019 10:01  
**To:** <redacted> <redacted>  
**Cc:** <redacted>  
**Subject:** RE: BSE - burial pits - FMQ briefing.

<redacted> –

Much appreciated and very helpful. We also need to be mindful not to confuse FMD burial sites with any (much smaller and “historic”) BSE burials. There will be numerous historic FMD burial sites pre 2001 epidemic, and the FMD burial sites associated with the FMD 2001 epidemic were the subject of a Science Advisory Council sub-group review two years ago. I sat on that review group as an observer, in view of my personal experience in 2001, my current job responsibilities, and the fact that there is a large site at Birkshaw Forest in Dumfriesshire.

That review did briefly also consider “prions” as well as FMD in a short paragraph –

**D.2.3 Prions** that cause transmissible spongiform encephalopathies (TSEs) such as BSE in cattle and scrapie in sheep, are highly resistant to inactivation processes (e.g. chemical, thermal ionizing).

**Concerning the *source*, for BSE, the risk of undetected infected animals entering the burial sites is considered very low (SEAC).**<sup>15</sup> Thus, the risk of onward transmission is negligible, particularly while sites remain undisturbed. Risks of scrapie in sheep are harder to quantify.

<redacted>

<redacted>

Veterinary Adviser (Notifiable Diseases),  
Animal Health and Welfare Division,  
Agriculture and Rural Economy Directorate,  
Scottish Government,  
Saughton House,  
Broomhouse Drive,  
Edinburgh EH11 3XD,

**From:** <redacted>  
**Sent:** 01 April 2019 17:49  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** RE: BSE - burial pits - FMQ briefing.

Hi <redacted>,

Down in London we spent a large part of Friday dealing with a Sunday Times query on this very subject. Having discussed with <redacted> (to whom many thanks) I attach a copy of the lines agreed over the weekend.

The Sunday Times journalist had found a list of burial sites published in the Independent in 1997, which is in the attached email. It includes four burial sites in Scotland. This is all we have at such short notice: official information on BSE burial sites may be held on archived paper files, but nothing has ever been digitised, and it would be a massive job to recover all of the files and then work through them.

Here is a link to the published paper, which was commissioned by Defra:

<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=8786&FromSearch=Y&Publisher=1&SearchText=SE1433&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description>  
<https://link.springer.com/article/10.1007%2Fs00705-019-04154-8>

If you need an estimate of how many animals were buried during the BSE and FMD outbreaks, the Anderson Report 2001 covers the 2001 FMD outbreak and has some very useful figures in it on pages 170/171. These figures were correct at the time of printing, but we understand that some of the on farm burials were later re-assessed and buried material was exhumed and disposed of via other approved methods – we would need time to check this and provide a comprehensive answer:

[https://webarchive.nationalarchives.gov.uk/20100809110813/http://archive.cabinetoffice.gov.uk/fmd/fmd\\_report/report/SECT\\_18.PDF](https://webarchive.nationalarchives.gov.uk/20100809110813/http://archive.cabinetoffice.gov.uk/fmd/fmd_report/report/SECT_18.PDF) <https://webarchive.nationalarchives.gov.uk/20100702215127/http://archive.cabinetoffice.gov.uk/fmd/>

No animals were buried as part of the 2007 FMD outbreak.

I hope that this helps – I am sorry that it is all I can provide in time for your deadline.

Best wishes

**<redacted> 01.04.2019**

Defra  
Future Animal & Public Health, Endemics & Traceability Directorate  
ABP/TSE Team  
Area 2B, Nobel House  
17 Smith Square  
London SW1P 3JR  
<redacted>

My email is changing – from 31 March 2019 GSI will be removed. The address will be <redacted> and is already working so please use it from now on.

## Email chain 2

**From:** <redacted>  
**Sent:** 06 August 2019 08:07  
**To:** <redacted>  
**Subject:** RE: BSE Burial pits - APHA FOI

Hi <redacted>,

Ms Gougeon brought it up with <redacted> after reading an article about it in the times, we are aware of 4 pits in Scotland with 1-5 carcasses per pit . I have attached the brief we provided to Ms Gougeon and the email chain below regarding risk assessments, to which none have been carried out.

<redacted>

Thanks <redacted>

Ms Gougeon has noted

<redacted>

Private Secretary to the Minister for Rural Affairs and the Natural Environment

<redacted>

All e-mails and attachments sent by a Ministerial Private Office to any other official on behalf of a Minister relating to a decision, request or comment made by a Minister, or a note of a Ministerial meeting, must be filed appropriately by the recipient. Private Offices do not keep official records of such e-mails or attachments.

Scottish Ministers, Special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See [www.lobbying.scot](http://www.lobbying.scot)

## Email chain 3

**From:** <redacted>  
**Sent:** 01 May 2019 14:54  
**To:** Minister for Rural Affairs and the Natural Environment <redacted>; <redacted>  
**Cc:** Cabinet Secretary for the Rural Economy <redacted> DG Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing <redacted>  
**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted>,

An unknown number (likely to be relatively few, given the scale of the epidemic that unfolded) of BSE infected cattle were buried on farm prior to the disease becoming notifiable and the introduction of the Animal By-Product Regulations banning on farm burial. This, alongside the significant number of other unknown variables (such as whether surviving prions can initiate new infections or how many clinical /subclinical carcasses were buried other than the small number quoted already in Scotland at known sites) mean that **risk assessments would be difficult and likely**

**inaccurate, so none have been completed.** Experts in the field are of the view that the risk of onward transmission is negligible, particularly while sites remain undisturbed.

Thanks,  
<redacted>

<redacted> | Animal Health and Welfare Division | Disease Prevention Team | P Spur, Saughton House, Edinburgh | <redacted>



**From:** <redacted> <redacted> **On Behalf Of** Minister for Rural Affairs and the Natural Environment  
**Sent:** 29 April 2019 18:07  
**To:** <redacted>; Minister for Rural Affairs and the Natural Environment <redacted>  
**Cc:** Cabinet Secretary for the Rural Economy <<redacted>DG Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing <redacted>  
**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted>,

Ms Gougeon has noted, and has asked whether we are risk assessing sites?

Thanks

<redacted>  
Assistant Private Secretary  
Minister for Rural Affairs and the Natural Environment  
2N.08 St Andrew's House | Regent Road | Edinburgh | EH1 3DG

 <redacted>  
[MinisterRANE@gov.scot](mailto:MinisterRANE@gov.scot)

Please check our updated [Ministerial preferences!](#)



All e-mails and attachments sent by a Ministerial Private Office to any other official on behalf of a Minister relating to a decision, request or comment made by a Minister, or a note of a Ministerial meeting, must be filed appropriately by the recipient. Private Offices do not keep official records of such e-mails or attachments.

Scottish Ministers, Special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See [www.lobbying.scot](http://www.lobbying.scot)

**From:** <redacted>  
**Sent:** 25 April 2019 09:36  
**To:** Minister for Rural Affairs and the Natural Environment <redacted>  
**Cc:** Cabinet Secretary for the Rural Economy <<redacted>DG Economy <redacted> Communications

Rural Economy & Environment <redacted>

**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted>,

Below is a summary of the research paper's abstract.

To answer Ms Gougeon's question about Scotland's actions, at present, no mitigation has been done in Scotland as there has been no proven detrimental effects on animal or human health from the burial pits. There is also the possibility that recovering BSE infected animals risks bringing buried prions to the surface which could further risk infection.

Summarised Abstract

*The carcasses of animals infected with BSE that remain in the environment (exposed or buried) may continue to act as reservoirs of infectivity. We conducted two experiments under near-field conditions to investigate the survival and dissemination of BSE infectivity after burial in a clay or sandy soil. BSE infectivity was either contained within a bovine skull or buried as a separate part of BSE-infected brain. Throughout the five-year period of the experiment, BSE infectivity was recovered in similar amounts from heads exhumed annually from both types of soil. Very low levels of infectivity were detected in the soil immediately surrounding the heads, but not in samples remote from them. Similarly, there was no evidence of significant lateral movement of infectivity from the burial area over 4 years although there was a little vertical movement in both directions. However, analysis of limited numbers of samples of rain water that had drained through the burial area indicated that infectivity was present in filtrates – raising concern that leakage of infectivity into ground water could occur. We conclude that TSE infectivity is likely to survive burial for long periods of time, but not to migrate far from the site of burial unless a vector or rain water drainage transports it. Risk assessments of contaminated sites should take these findings into account.*

Thanks,

<redacted>

<redacted> | Animal Health and Welfare Division | Disease Prevention Team | P Spur, Saughton House, Edinburgh | <redacted> | <redacted>



Scottish Government  
Riaghaltas na h-Alba  
gov.scot

**From:** <redacted> > **On Behalf Of** Minister for Rural Affairs and the Natural Environment

**Sent:** 23 April 2019 17:51

**To:** <redacted> Minister for Rural Affairs and the Natural Environment <redacted>

**Cc:** Cabinet Secretary for the Rural Economy <redacted> DG Economy <redacted> Communications  
Rural Economy & Environment <redacted>

**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted>

Ms Gougeon has noted, however comments the FMQ brief hasn't really given her the details she was after. It would be helpful if officials were able to provide her with a synopsis of the study/publication, that led to the news coverage, and it's outcome. Also information on what we're doing in Scotland, if anything?

Thanks

<redacted>

Private Secretary to the Minister for Rural Affairs and the Natural Environment

<redacted>

[MinisterRANE@gov.scot](mailto:MinisterRANE@gov.scot)

All e-mails and attachments sent by a Ministerial Private Office to any other official on behalf of a Minister relating to a decision, request or comment made by a Minister, or a note of a Ministerial meeting, must be filed appropriately by the recipient. Private Offices do not keep official records of such e-mails or attachments.

Scottish Ministers, Special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See [www.lobbying.scot](http://www.lobbying.scot)

**From:** <redacted>

**Sent:** 10 April 2019 12:27

**To:** Minister for Rural Affairs and the Natural Environment <redacted>

**Cc:** Cabinet Secretary for the Rural Economy <redacted> DG Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing <redacted>

**Subject:** Briefing - BSE- Burial pits in Scotland

<redacted>,

(See Document A)

Please see attached brief on BSE burial pits as requested by Ms Gougeon.

Kind regards

<redacted>

<redacted>

Disease Prevention  
Animal Health and Welfare Division (P Spur)  
Directorate for Agriculture Food and Rural Communities, Scottish Government  
Saughton House, Broomhouse Drive, Edinburgh, EH11 3XD

Tel: <redacted>

Fax: <redacted>

#### Email chain 4

**From:** <redacted> **On Behalf Of** Minister for Rural Affairs and the Natural Environment  
**Sent:** 04 April 2019 18:02  
**To:** <redacted>  
**Cc:** <redacted> DG Economy <redacted> Cabinet Secretary for the Rural Economy  
<redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health,  
Sport and Wellbeing <redacted>  
**Subject:** Burial pits

<redacted>

Ms Gougeon mentioned during your catch-up the other day that she'd noted the article below over the weekend and would welcome official advice.

<https://www.thetimes.co.uk/article/mad-cow-disease-burial-pits-may-still-still-pose-a-threat-0c2r1tk2>

Are there any farms in Scotland affected, if so how many? How much of a risk does this pose? Are we doing any work to mitigate the risk?

Grateful if you could provide advice by 4pm on Wednesday 10<sup>th</sup> April.

Thanks

<redacted>

Private Secretary to the Minister for Rural Affairs and the Natural Environment

<redacted> [MinisterRANE@gov.scot](mailto:MinisterRANE@gov.scot)

All e-mails and attachments sent by a Ministerial Private Office to any other official on behalf of a Minister relating to a decision, request or comment made by a Minister, or a note of a Ministerial meeting, must be filed appropriately by the recipient. Private Offices do not keep official records of such e-mails or attachments.

Scottish Ministers, Special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See [www.lobbying.scot](http://www.lobbying.scot)

#### Email chain 5

**From:** <redacted>  
**Sent:** 05 August 2019 16:20  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** BSE Burial pits - APHA FOI

<redacted>,

<redacted> phoned me as a heads up that APHA have this FOI. We may get a contact from APHA, or from the Evening News/Scotsman so we should prepare:

I recall the discussions back in April – which APHA were part of (and <redacted> has forwarded some of the background correspondence), but I don't recall the origin of the enquiry – was it an FOI? If so, can you dig it out please. Or was it some other form of enquiry – we need to ensure we are consistent, and that APHA are consistent with us.

I also recall the Minister asking about risk assessments and details of sites – it would be worth refreshing our memories on that too.

Thanks

<redacted>

#### Email chain 6

**From:** <redacted>

**Sent:** 01 May 2019 14:54

**To:** <redacted>

**Cc:** Cabinet Secretary for the Rural Economy <redacted> DG Economy <redacted> Communications Rural Economy & Environment <redacted>

**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted>,

An unknown number (likely to be relatively few, given the scale of the epidemic that unfolded) of BSE infected cattle were buried on farm prior to the disease becoming notifiable and the introduction of the Animal By-Product Regulations banning on farm burial. This, alongside the significant number of other unknown variables (such as whether surviving prions can initiate new infections or how many clinical /subclinical carcasses were buried other than the small number quoted already in Scotland at known sites) mean that **risk assessments would be difficult and likely inaccurate, so none have been completed**. Experts in the field are of the view that the risk of onward transmission is negligible, particularly while sites remain undisturbed.

Thanks,

<redacted>

<redacted> | Animal Health and Welfare Division | Disease Prevention Team | P Spur, Saughton House, Edinburgh | <redacted>



**From:** <redacted> **On Behalf Of** Minister for Rural Affairs and the Natural Environment  
**Sent:** 29 April 2019 18:07  
**To:** <redacted> Minister for Rural Affairs and the Natural Environment <redacted>  
**Cc:** Cabinet Secretary for the Rural Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing <redacted>  
**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted>

Ms Gougeon has noted, and has asked whether we are risk assessing sites?

Thanks

<redacted>

Assistant Private Secretary  
Minister for Rural Affairs and the Natural Environment  
2N.08 St Andrew's House | Regent Road | Edinburgh | EH1 3DG

 <redacted>

[MinisterRANE@gov.scot](mailto:MinisterRANE@gov.scot)

Please check our updated [Ministerial preferences!](#)



All e-mails and attachments sent by a Ministerial Private Office to any other official on behalf of a Minister relating to a decision, request or comment made by a Minister, or a note of a Ministerial meeting, must be filed appropriately by the recipient. Private Offices do not keep official records of such e-mails or attachments.

Scottish Ministers, Special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See [www.lobbying.scot](http://www.lobbying.scot)

**From:** <redacted>>  
**Sent:** 25 April 2019 09:36  
**To:** Minister for Rural Affairs and the Natural Environment <redacted> <redacted>  
**Cc:** Cabinet Secretary for the Rural Economy <redacted> <redacted> DG Economy <redacted> Communications Rural Economy & Environment <redacted>  
**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted>,

Below is a summary of the research paper's abstract.

To answer Ms Gougeon's question about Scotland's actions, at present, no mitigation has been done in Scotland as there has been no proven detrimental effects on animal or human health from the burial pits. There is also the possibility that recovering BSE infected animals risks bringing buried prions to the surface which could further risk infection.

## Summarised Abstract

*The carcasses of animals infected with BSE that remain in the environment (exposed or buried) may continue to act as reservoirs of infectivity. We conducted two experiments under near-field conditions to investigate the survival and dissemination of BSE infectivity after burial in a clay or sandy soil. BSE infectivity was either contained within a bovine skull or buried as a separate part of BSE-infected brain. Throughout the five-year period of the experiment, BSE infectivity was recovered in similar amounts from heads exhumed annually from both types of soil. Very low levels of infectivity were detected in the soil immediately surrounding the heads, but not in samples remote from them. Similarly, there was no evidence of significant lateral movement of infectivity from the burial area over 4 years although there was a little vertical movement in both directions. However, analysis of limited numbers of samples of rain water that had drained through the burial area indicated that infectivity was present in filtrates – raising concern that leakage of infectivity into ground water could occur. We conclude that TSE infectivity is likely to survive burial for long periods of time, but not to migrate far from the site of burial unless a vector or rain water drainage transports it. Risk assessments of contaminated sites should take these findings into account.*

Thanks,

<redacted>

<redacted> | Animal Health and Welfare Division | Disease Prevention Team | P Spur, Saughton House, Edinburgh | <redacted>



Scottish Government  
Riaghaltas na h-Alba  
gov.scot

**From:** <redacted> <redacted> **On Behalf Of** Minister for Rural Affairs and the Natural Environment  
**Sent:** 23 April 2019 17:51

**To:** <redacted> Minister for Rural Affairs and the Natural Environment <redacted>

**Cc:** Cabinet Secretary for the Rural Economy <<redacted>DG Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing <redacted>

**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted>

Ms Gougeon has noted, however comments the FMQ brief hasn't really given her the details she was after. It would be helpful if officials were able to provide her with a synopsis of the study/publication, that led to the news coverage, and it's outcome. Also information on what we're doing in Scotland, if anything?

Thanks

<redacted>

Private Secretary to the Minister for Rural Affairs and the Natural Environment

<redacted>

[MinisterRANE@gov.scot](mailto:MinisterRANE@gov.scot)

All e-mails and attachments sent by a Ministerial Private Office to any other official on behalf of a Minister relating to a decision, request or comment made by a Minister, or a note of a Ministerial meeting, must be filed appropriately by the recipient. Private Offices do not keep official records of such e-mails or attachments.

Scottish Ministers, Special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See [www.lobbying.scot](http://www.lobbying.scot)

**From:** <redacted>

**Sent:** 10 April 2019 12:27

**To:** Minister for Rural Affairs and the Natural Environment <redacted>

**Cc:** Cabinet Secretary for the Rural Economy <redacted> <redacted> DG Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing <redacted>

**Subject:** Briefing - BSE- Burial pits in Scotland

<redacted>,

(See Document A)

Please see attached brief on BSE burial pits as requested by Ms Gougeon.

Kind regards

<redacted>

<redacted>

Disease Prevention  
Animal Health and Welfare Division (P Spur)  
Directorate for Agriculture Food and Rural Communities, Scottish Government  
Saughton House, Broomhouse Drive, Edinburgh, EH11 3XD

Tel: <redacted>

Fax: <redacted>



#### Email chain 7

**From:** <redacted> <<redacted> On Behalf Of Minister for Rural Affairs and the Natural Environment

**Sent:** 04 April 2019 18:02

**To:** <redacted>

**Cc:** <redacted> DG Economy <redacted> Cabinet Secretary for the Rural Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing <redacted>

**Subject:** Burial pits

<redacted>

Ms Gougeon mentioned during your catch-up the other day that she'd noted the article below over the weekend and would welcome official advice.

<https://www.thetimes.co.uk/article/mad-cow-disease-burial-pits-may-still-still-pose-a-threat-0c2r1tk2>

Are there any farms in Scotland affected, if so how many? How much of a risk does this pose? Are we doing any work to mitigate the risk?

Grateful if you could provide advice by 4pm on Wednesday 10<sup>th</sup> April.

Thanks

<redacted>

Private Secretary to the Minister for Rural Affairs and the Natural Environment

<redacted>

[MinisterRANE@gov.scot](mailto:MinisterRANE@gov.scot)

All e-mails and attachments sent by a Ministerial Private Office to any other official on behalf of a Minister relating to a decision, request or comment made by a Minister, or a note of a Ministerial meeting, must be filed appropriately by the recipient. Private Offices do not keep official records of such e-mails or attachments.

Scottish Ministers, Special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See [www.lobbying.scot](http://www.lobbying.scot)

---

## Email chain 8

**From:** <redacted>

**Sent:** 30 April 2019 09:55

**To:** <redacted>

**Cc:** <redacted>

**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted> - Almost certainly.

I would imagine that the risk assessment fraternity would struggle with the significant number of unknown variables – such as current knowledge about prion survival in the environment, whether surviving prions can initiate new infections, whether the “experimental” BSE strain used in these experiments is indicative of the strain in the epidemic, how many clinical /subclinical carcasses were buried other than the small number quoted already in Scotland at known sites etc, etc.

Cows don't give BSE to each other, and I can't imagine how humans would consume prions in carcass burial sites.

The 2001 Foot and Mouth disease (FMD) carcass burial sites were reviewed recently by the Science Advisory Council and their report was published in 2017. I sat on that review group

as an observer, in view of my personal experience in 2001, my current job responsibilities, and the fact that there is a large site at Birkshaw Forest in Dumfriesshire.

That review did briefly also consider “prions” as well as FMD in a short paragraph –

**D.2.3 Prions** that cause transmissible spongiform encephalopathies (TSEs) such as BSE in cattle and scrapie in sheep, are highly resistant to inactivation processes (e.g. chemical, thermal ionizing).

**Concerning the source, for BSE, the risk of undetected infected animals entering the burial sites is considered very low (SEAC).**<sup>15</sup> Thus, the risk of onward transmission is negligible, particularly while sites remain undisturbed. Risks of scrapie in sheep are harder to quantify.

We need to be mindful that those conclusions relate to FMD burial sites which were established after BSE became notifiable, but the reassurance is gained from the absence of any evidence that any notifiable disease can be re-initiated from securely buried carcasses. After some lengthy consideration SAC decided to “let sleeping cattle lie”. That would be my advice too.

However, if you wish to pursue further, I would suggest that Defra colleagues could be consulted about initiating VRAs with APHA Weybridge experts.

<redacted>

<redacted>

Veterinary Adviser (Notifiable Diseases),  
Animal Health and Welfare Division,  
Agriculture and Rural Economy Directorate,  
Scottish Government,  
Saughton House,  
Broomhouse Drive,  
Edinburgh EH11 3XD,

**From:** <redacted>

**Sent:** 30 April 2019 08:40

**To:** <redacted>

**Subject:** FW: Briefing - BSE- Burial pits in Scotland

Hi all

One for <redacted> probably. At the height of the BSE epidemic, were BSE cases buried on farm prior to the ABP regs?

<redacted>

**From:** <redacted> **On Behalf Of** Minister for Rural Affairs and the Natural Environment

**Sent:** 29 April 2019 18:07

**To:** <redacted> Minister for Rural Affairs and the Natural Environment <redacted> <redacted>

**Cc:** Cabinet Secretary for the Rural Economy <redacted> DG Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing

<redacted>

**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted>,

Ms Gougeon has noted, and has asked whether we are risk assessing sites?

Thanks

<redacted>

Assistant Private Secretary  
Minister for Rural Affairs and the Natural Environment  
2N.08 St Andrew's House | Regent Road | Edinburgh | EH1 3DG

☎ <redacted>

[MinisterRANE@gov.scot](mailto:MinisterRANE@gov.scot)

Please check our updated [Ministerial preferences!](#)



All e-mails and attachments sent by a Ministerial Private Office to any other official on behalf of a Minister relating to a decision, request or comment made by a Minister, or a note of a Ministerial meeting, must be filed appropriately by the recipient. Private Offices do not keep official records of such e-mails or attachments.

Scottish Ministers, Special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See [www.lobbying.scot](http://www.lobbying.scot)

**From:** <redacted>

**Sent:** 25 April 2019 09:36

**To:** Minister for Rural Affairs and the Natural Environment <redacted>

**Cc:** Cabinet Secretary for the Rural Economy <redacted> <redacted> DG Economy  
<redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health,  
Sport and Wellbeing <redacted>

**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted>,

Below is a summary of the research paper's abstract.

To answer Ms Gougeon's question about Scotland's actions, at present, no mitigation has been done in Scotland as there has been no proven detrimental effects on animal or human health from the burial pits. There is also the possibility that recovering BSE infected animals risks bringing buried prions to the surface which could further risk infection.

### Summarised Abstract

*The carcasses of animals infected with BSE that remain in the environment (exposed or buried) may continue to act as reservoirs of infectivity. We conducted*

*two experiments under near-field conditions to investigate the survival and dissemination of BSE infectivity after burial in a clay or sandy soil. BSE infectivity was either contained within a bovine skull or buried as a separate part of BSE-infected brain. Throughout the five-year period of the experiment, BSE infectivity was recovered in similar amounts from heads exhumed annually from both types of soil. Very low levels of infectivity were detected in the soil immediately surrounding the heads, but not in samples remote from them. Similarly, there was no evidence of significant lateral movement of infectivity from the burial area over 4 years although there was a little vertical movement in both directions. However, analysis of limited numbers of samples of rain water that had drained through the burial area indicated that infectivity was present in filtrates – raising concern that leakage of infectivity into ground water could occur. We conclude that TSE infectivity is likely to survive burial for long periods of time, but not to migrate far from the site of burial unless a vector or rain water drainage transports it. Risk assessments of contaminated sites should take these findings into account.*

Thanks,

<redacted>

<redacted> | Animal Health and Welfare Division | Disease Prevention Team | P Spur, Saughton House, Edinburgh | <redacted>



**From:** <redacted> <redacted> **On Behalf Of** Minister for Rural Affairs and the Natural Environment

**Sent:** 23 April 2019 17:51

**To:** <redacted> Minister for Rural Affairs and the Natural Environment <redacted>

**Cc:** Cabinet Secretary for the Rural Economy <redacted> DG Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing <redacted>

**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted>

Ms Gougeon has noted, however comments the FMQ brief hasn't really given her the details she was after. It would be helpful if officials were able to provide her with a synopsis of the study/publication, that led to the news coverage, and it's outcome. Also information on what we're doing in Scotland, if anything?

Thanks

<redacted>

Private Secretary to the Minister for Rural Affairs and the Natural Environment

<redacted>

[MinisterRANE@gov.scot](mailto:MinisterRANE@gov.scot)

All e-mails and attachments sent by a Ministerial Private Office to any other official on behalf of a Minister relating to a decision, request or comment made by a Minister, or a note of a Ministerial meeting, must be filed appropriately by the recipient. Private Offices do not keep official records of such e-mails or attachments.

Scottish Ministers, Special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See [www.lobbying.scot](http://www.lobbying.scot)

**From:** <redacted>

**Sent:** 10 April 2019 12:27

**To:** Minister for Rural Affairs and the Natural Environment <redacted>

**Cc:** Cabinet Secretary for the Rural Economy <redacted> DG Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing <redacted>

**Subject:** Briefing - BSE- Burial pits in Scotland

<redacted>,

(See Document A)

Please see attached brief on BSE burial pits as requested by Ms Gougeon.

Kind regards

<redacted>

<redacted>

Disease Prevention  
Animal Health and Welfare Division (P Spur)  
Directorate for Agriculture Food and Rural Communities, Scottish Government  
Saughton House, Broomhouse Drive, Edinburgh, EH11 3XD

Tel: <redacted>

Fax: <redacted>



#### Email chain 9

**From:** <redacted> <<redacted> On Behalf Of Minister for Rural Affairs and the Natural Environment

**Sent:** 04 April 2019 18:02

**To:** <redacted>

**Cc:** <redacted> DG Economy <redacted> Cabinet Secretary for the Rural Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing <redacted>

**Subject:** Burial pits

<redacted>

Ms Gougeon mentioned during your catch-up the other day that she'd noted the article below over the weekend and would welcome official advice.

<https://www.thetimes.co.uk/article/mad-cow-disease-burial-pits-may-still-still-pose-a-threat-0c2r1tk2>

Are there any farms in Scotland affected, if so how many? How much of a risk does this pose? Are we doing any work to mitigate the risk?

Grateful if you could provide advice by 4pm on Wednesday 10<sup>th</sup> April.

Thanks

<redacted>

Private Secretary to the Minister for Rural Affairs and the Natural Environment

<redacted>

<redacted>

[MinisterRANE@gov.scot](mailto:MinisterRANE@gov.scot)

All e-mails and attachments sent by a Ministerial Private Office to any other official on behalf of a Minister relating to a decision, request or comment made by a Minister, or a note of a Ministerial meeting, must be filed appropriately by the recipient. Private Offices do not keep official records of such e-mails or attachments.

Scottish Ministers, Special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See [www.lobbying.scot](http://www.lobbying.scot)

---

#### Email chain 10

**From:** <redacted>

**Sent:** 25 April 2019 09:36

**To:** Minister for Rural Affairs and the Natural Environment <redacted>

**Cc:** Cabinet Secretary for the Rural Economy <redacted> DG Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing <redacted>

**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted>,

Below is a summary of the research paper's abstract.

To answer Ms Gougeon's question about Scotland's actions, at present, no mitigation has been done in Scotland as there has been no proven detrimental effects on animal or human health from the burial pits. There is also the possibility that recovering BSE infected animals risks bringing buried prions to the surface which could further risk infection.

## Summarised Abstract

*The carcasses of animals infected with BSE that remain in the environment (exposed or buried) may continue to act as reservoirs of infectivity. We conducted two experiments under near-field conditions to investigate the survival and dissemination of BSE infectivity after burial in a clay or sandy soil. BSE infectivity was either contained within a bovine skull or buried as a separate part of BSE-infected brain. Throughout the five-year period of the experiment, BSE infectivity was recovered in similar amounts from heads exhumed annually from both types of soil. Very low levels of infectivity were detected in the soil immediately surrounding the heads, but not in samples remote from them. Similarly, there was no evidence of significant lateral movement of infectivity from the burial area over 4 years although there was a little vertical movement in both directions. However, analysis of limited numbers of samples of rain water that had drained through the burial area indicated that infectivity was present in filtrates – raising concern that leakage of infectivity into ground water could occur. We conclude that TSE infectivity is likely to survive burial for long periods of time, but not to migrate far from the site of burial unless a vector or rain water drainage transports it. Risk assessments of contaminated sites should take these findings into account.*

Thanks,

<redacted>

<redacted> | Animal Health and Welfare Division | Disease Prevention Team | P Spur, Saughton House, Edinburgh | <redacted>



Scottish Government  
Riaghaltas na h-Alba  
gov.scot

**From:** <redacted> <redacted> **On Behalf Of** Minister for Rural Affairs and the Natural Environment

**Sent:** 23 April 2019 17:51

**To:** <redacted> Minister for Rural Affairs and the Natural Environment <redacted>

**Cc:** Cabinet Secretary for the Rural <redacted> DG Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing <redacted>

**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted>

Ms Gougeon has noted, however comments the FMQ brief hasn't really given her the details she was after. It would be helpful if officials were able to provide her with a synopsis of the study/publication, that led to the news coverage, and it's outcome. Also information on what we're doing in Scotland, if anything?

Thanks

<redacted>

Private Secretary to the Minister for Rural Affairs and the Natural Environment

<redacted>

[MinisterRANE@gov.scot](mailto:MinisterRANE@gov.scot)

All e-mails and attachments sent by a Ministerial Private Office to any other official on behalf of a Minister relating to a decision, request or comment made by a Minister, or a note of a Ministerial meeting, must be filed appropriately by the recipient. Private Offices do not keep official records of such e-mails or attachments.

Scottish Ministers, Special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See [www.lobbying.scot](http://www.lobbying.scot)

**From:** <redacted>

**Sent:** 10 April 2019 12:27

**To:** Minister for Rural Affairs and the Natural Environment <redacted>

**Cc:** Cabinet Secretary for the Rural Economy <redacted> DG Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing <redacted>

**Subject:** Briefing - BSE- Burial pits in Scotland

<redacted>,

(See Document A)

Please see attached brief on BSE burial pits as requested by Ms Gougeon.

Kind regards

<redacted>

<redacted>

Disease Prevention  
Animal Health and Welfare Division (P Spur)  
Directorate for Agriculture Food and Rural Communities, Scottish Government  
Saughton House, Broomhouse Drive, Edinburgh, EH11 3XD

Tel: <redacted>

Fax: <redacted>



#### Email chain 11

**From:** <redacted> <redacted> **On Behalf Of** Minister for Rural Affairs and the Natural Environment

**Sent:** 04 April 2019 18:02

**To:** <redacted>

**Cc:** <redacted> DG Economy <redacted> Cabinet Secretary for the Rural Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing <redacted>

**Subject:** Burial pits

<redacted>

Ms Gougeon mentioned during your catch-up the other day that she'd noted the article below over the weekend and would welcome official advice.

<https://www.thetimes.co.uk/article/mad-cow-disease-burial-pits-may-still-still-pose-a-threat-0c2r1tk2>

Are there any farms in Scotland affected, if so how many? How much of a risk does this pose? Are we doing any work to mitigate the risk?

Grateful if you could provide advice by 4pm on Wednesday 10<sup>th</sup> April.

Thanks

<redacted>

Private Secretary to the Minister for Rural Affairs and the Natural Environment

<redacted>

[MinisterRANE@gov.scot](mailto:MinisterRANE@gov.scot)

All e-mails and attachments sent by a Ministerial Private Office to any other official on behalf of a Minister relating to a decision, request or comment made by a Minister, or a note of a Ministerial meeting, must be filed appropriately by the recipient. Private Offices do not keep official records of such e-mails or attachments.

Scottish Ministers, Special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See [www.lobbying.scot](http://www.lobbying.scot)

---

## Email chain 12

**From:** <redacted>

**Sent:** 01 April 2019 13:16

**To:** <redacted>

**Cc:** <redacted>

**Subject:** BSE - burial pits - FMQ briefing.

<redacted> / <redacted> –

We were unaware of this announcement from Roslin / Nottingham about their Defra funded study on prion survival in soil. My colleagues have to provide First Minister's briefing by tomorrow morning. I anticipate that SEPA colleagues would lead.

<https://www.edinburghnews.scotsman.com/news/mad-cow-disease-burial-pits-still-a-risk-to-public-health-warn-edinburgh-university-experts-1-4898836>

Do you have any headline information about the location and number of dedicated BSE carcass burial sites in GB? I can't recall that we have any in Scotland, although dead cattle were being buried routinely until the Animal by Products Regulations banned that practice outside of remote areas.

We also need sight of the published paper / Defra lines etc - if you have that too?

Cc <redacted> APHA

Thanks,

<redacted>

<redacted>

Veterinary Adviser (Notifiable Diseases),  
Animal Health and Welfare Division,  
Agriculture and Rural Economy Directorate,  
Scottish Government,  
Saughton House,  
Broomhouse Drive,  
Edinburgh EH11 3XD,

#### Email chain 13

**From:** <redacted>

**Sent:** 01 April 2019 12:05

**To:** <redacted>

**Cc:** <redacted>

**Subject:** RE: FMQ Brief Burial Pits Due Tuesday 10:30am

Apologies I saw 'burial pits' in the title and thought FMD, not BSE. Now I have read the article.

<https://www.edinburghnews.scotsman.com/news/mad-cow-disease-burial-pits-still-a-risk-to-public-health-warn-edinburgh-university-experts-1-4898836>

Can we get a copy of the report from Defra please – <redacted> and <redacted> were you aware of this project?

Do we have any of these pits in Scotland?

I am on leave now.

<redacted>

<redacted>

*Animal Health - Disease Prevention | Directorate for Agriculture and Rural Economy | Scottish Government | Tel. <redacted> | Mob <redacted>*

---

#### Email chain 14

**From:** <redacted>

**Sent:** 05 August 2019 16:20

**To:** <redacted>

**Cc:** <redacted>

**Subject:** BSE Burial pits - APHA FOI

<redacted>, <redacted> phoned me as a heads up that APHA have this FOI. We may get a contact from APHA, or from the Evening News/Scotsman so we should prepare:

I recall the discussions back in April – which APHA were part of (and <redacted> has forwarded some of the background correspondence), but I don't recall the origin of the enquiry – was it an FOI? If so, can you dig it out please. Or was it some other form of enquiry – we need to ensure we are consistent, and that APHA are consistent with us.

I also recall the Minister asking about risk assessments and details of sites – it would be worth refreshing our memories on that too.

Thanks

<redacted>

---

#### Email chain 15

**From:** Science Advisory Council (ScD) <redacted>

**Sent:** 05 September 2017 13:28

**To:** <redacted>

**Cc:** <redacted>

**Subject:** Publication of FMD Carcass Burial Report

All,

I am pleased to confirm that the FMD carcass burial report has been published on the SAC website today. A link to the report is below.

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/642195/sac-fmd-carcass-burial-review.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/642195/sac-fmd-carcass-burial-review.pdf)

Again, thank you very much to all sub group members for their hard work.

Very best wishes

<redacted>

<redacted>| Science Advisory Council Secretariat and Evidence Publication  
Secretariat| Chief Scientific Adviser's Office| Department for Environment, Food and  
Rural Affairs  
Direct Line: <redacted>| Email: <redacted>| Room 6c Nobel House, 17 Smith  
Square, London, SW1P 3JR

#### Email chain 16

**From:** <redacted>  
**Sent:** 01 April 2019 17:18  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** RE: FMQ Brief BSE Burial Pits Due Tuesday 10:30am

i.e. – One confirmed case in 2018, last previous case 1 in 2008. No emergence / recurrence of disease to date on previously affected farms or in any specific locations (8,494 cases in Scotland total) Will be taking careful account of any Government / other funded scientific research. etc

<redacted>

**From:** <redacted>  
**Sent:** 01 April 2019 17:02  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** FW: FMQ Brief BSE Burial Pits Due Tuesday 10:30am  
**Importance:** High

<redacted> – Do we need more Scotland focus with the BSE numbers (smaller)? <redacted>  
monthly report has the full range of source statistics.

<redacted>

**From:** <redacted>  
**Sent:** 01 April 2019 16:51  
**To:** <redacted>  
**Subject:** FMQ Brief BSE Burial Pits Due Tuesday 10:30am  
**Importance:** High

Dear all

Apologise for the last minute briefing request. We have been asked to provide FMQ briefing on a news article on BSE burial pits from the 90s posing a public health risk. Here is a link to one of the news articles:

<https://www.edinburghnews.scotsman.com/news/mad-cow-disease-burial-pits-still-a-risk-to-public-health-warn-edinburgh-university-experts-1-4898836>

As you will see this relates to research carried out by the Roslin Institute which has been funded by Defra. AHW colleagues are completely unsighted on this research work and press interest in this also appears to have caught Defra off guard as well, who similarly struggled to provide information for a Sunday Times request. We are

unlikely to get specific details if there were any BSE burial sites in Scotland before our deadline. I have drafted a very general note on BSE with a brief mention to prions being difficult to destroy. I also have some information about vCJD that Public Health colleagues may want to comment on.

Is it possible to receive comments by 10:00 am tomorrow please?

Thanks

<redacted>

**From:** <redacted>

**Sent:** 01 April 2019 11:25

**To:** <redacted>

**Cc:** <redacted>

**Subject:** FMQ Brief Burial Pits Due Tuesday 10:30am

**Importance:** High

Hello <redacted>,

The FMQ team are needing a brief on BSE - Burial pits could still pose public risk - Monday Scotsman p17. Please note the deadline is 10:30 am tomorrow. Grateful if you could confirm this has been picked up.

Please find a blank FMQ template attached

**Please see below reminder re formatting of your FMQ brief:**

- **Do not write SG it has to be “The Scottish Government” or “we”.**
- **Words should be typed out in full e.g. 1m should be 1 million**
- **Include punctuation throughout the brief, including full stops at the end of bullet point sentences.**
- **All headings throughout the brief should be no more than 2 lines long max.**

**If the above is not followed the FMQ team will return your brief.**

Please find links to the guidance below:

**Please keep bullet points at a maximum 2 lines per bullet point to enable FM to read these out in chamber.**

**Preparing FMQs Page – <http://saltire/my-workplace/ministerial-preferences-and-support/best-practice/Pages/Preparing-FMQs.aspx>**

Regards,

<redacted>

<redacted>, FMQ & PQ Support Officer,  
Room 1N.04, St Andrews House, Edinburgh EH1 3DG

<redacted>



*Please be aware when answering a PQ the “DG for re-draft scrutiny” option should only be used by Transport Scotland colleagues. Actions Officers in all other areas should send PQs to “Private Office for approval”.*

#### Email chain 17

**From:** <redacted>

**Sent:** 02 April 2019 10:01

**To:** <redacted>

**Cc:** <redacted>

**Subject:** RE: BSE - burial pits - FMQ briefing.

<redacted> –

Much appreciated and very helpful. We also need to be mindful not to confuse FMD burial sites with any (much smaller and “historic”) BSE burials. There will be numerous historic FMD burial sites pre 2001 epidemic, and the FMD burial sites associated with the FMD 2001 epidemic were the subject of a Science Advisory Council sub-group review two years ago. I sat on that review group as an observer, in view of my personal experience in 2001, my current job responsibilities, and the fact that there is a large site at Birkshaw Forest in Dumfriesshire.

That review did briefly also consider “prions” as well as FMD in a short paragraph –

**D.2.3 Prions** that cause transmissible spongiform encephalopathies (TSEs) such as BSE in cattle and scrapie in sheep, are highly resistant to inactivation processes (e.g. chemical, thermal ionizing).

**Concerning the source, for BSE, the risk of undetected infected animals entering the burial sites is considered very low (SEAC).**<sup>15</sup> Thus, the risk of onward transmission is negligible, particularly while sites remain undisturbed. Risks of scrapie in sheep are harder to quantify.

<redacted>

<redacted>

Veterinary Adviser (Notifiable Diseases),  
Animal Health and Welfare Division,  
Agriculture and Rural Economy Directorate,  
Scottish Government,

Saughton House,  
Broomhouse Drive,  
Edinburgh EH11 3XD,

**From:** <redacted>  
**Sent:** 01 April 2019 17:49  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** RE: BSE - burial pits - FMQ briefing.

Hi <redacted>,

Down in London we spent a large part of Friday dealing with a Sunday Times query on this very subject. Having discussed with <redacted> (to whom many thanks) I attach a copy of the lines agreed over the weekend.

The Sunday Times journalist had found a list of burial sites published in the Independent in 1997, which is in the attached email. It includes four burial sites in Scotland. This is all we have at such short notice: official information on BSE burial sites may be held on archived paper files, but nothing has ever been digitised, and it would be a massive job to recover all of the files and then work through them.

Here is a link to the published paper, which was commissioned by Defra:  
<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=8786&FromSearch=Y&Publisher=1&SearchText=SE1433&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description>  
<https://link.springer.com/article/10.1007%2Fs00705-019-04154-8>

If you need an estimate of how many animals were buried during the BSE and FMD outbreaks, the Anderson Report 2001 covers the 2001 FMD outbreak and has some very useful figures in it on pages 170/171. These figures were correct at the time of printing, but we understand that some of the on farm burials were later re-assessed and buried material was exhumed and disposed of via other approved methods – we would need time to check this and provide a comprehensive answer:  
[https://webarchive.nationalarchives.gov.uk/20100809110813/http://archive.cabinetoffice.gov.uk/fmd/fmd\\_report/report/SECT\\_18.PDF](https://webarchive.nationalarchives.gov.uk/20100809110813/http://archive.cabinetoffice.gov.uk/fmd/fmd_report/report/SECT_18.PDF) <https://webarchive.nationalarchives.gov.uk/20100702215127/http://archive.cabinetoffice.gov.uk/fmd/>

No animals were buried as part of the 2007 FMD outbreak.

I hope that this helps – I am sorry that it is all I can provide in time for your deadline.

Best wishes

**<redacted> 01.04.2019**

Defra  
Future Animal & Public Health, Endemics & Traceability Directorate  
ABP/TSE Team

Area 2B, Nobel House  
17 Smith Square  
London SW1P 3JR  
<redacted>

My email is changing – from 31 March 2019 GSI will be removed. The address will be <redacted> and is already working so please use it from now on.

#### Email chain 18

**From:** <redacted>  
**Sent:** 30 April 2019 09:55  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted> - Almost certainly.

I would imagine that the risk assessment fraternity would struggle with the significant number of unknown variables – such as current knowledge about prion survival in the environment, whether surviving prions can initiate new infections, whether the “experimental” BSE strain used in these experiments is indicative of the strain in the epidemic, how many clinical /subclinical carcasses were buried other than the small number quoted already in Scotland at known sites etc, etc.

Cows don’t give BSE to each other, and I can’t imagine how humans would consume prions in carcase burial sites.

The 2001 Foot and Mouth disease (FMD) carcase burial sites were reviewed recently by the Science Advisory Council and their report was published in 2017. I sat on that review group as an observer, in view of my personal experience in 2001, my current job responsibilities, and the fact that there is a large site at Birkshaw Forest in Dumfriesshire.

That review did briefly also consider “prions” as well as FMD in a short paragraph –

**D.2.3 Prions** that cause transmissible spongiform encephalopathies (TSEs) such as BSE in cattle and scrapie in sheep, are highly resistant to inactivation processes (e.g. chemical, thermal ionizing).

**Concerning the source, for BSE, the risk of undetected infected animals entering the burial sites is considered very low (SEAC).**<sup>15</sup> Thus, the risk of onward transmission is negligible, particularly while sites remain undisturbed. Risks of scrapie in sheep are harder to quantify.

We need to be mindful that those conclusions relate to FMD burial sites which were established after BSE became notifiable, but the reassurance is gained from the absence of any evidence that any notifiable disease can be re-initiated from securely buried carcasses. After some lengthy consideration SAC decided to “let sleeping cattle lie”. That would be my advice too.

However, if you wish to pursue further, I would suggest that Defra colleagues could be consulted about initiating VRAs with APHA Weybridge experts.

<redacted>

<redacted>

Veterinary Adviser (Notifiable Diseases),  
Animal Health and Welfare Division,  
Agriculture and Rural Economy Directorate,  
Scottish Government,  
Saughton House,  
Broomhouse Drive,  
Edinburgh EH11 3XD,

**From:** <redacted>

**Sent:** 30 April 2019 08:40

**To:** <redacted>

**Subject:** FW: Briefing - BSE- Burial pits in Scotland

Hi all

One for <redacted> probably. At the height of the BSE epidemic, were BSE cases buried on farm prior to the ABP regs?

<redacted>

**From:** <redacted> <redacted> **On Behalf Of** Minister for Rural Affairs and the Natural Environment

**Sent:** 29 April 2019 18:07

**To:** <redacted> Minister for Rural Affairs and the Natural Environment <redacted>

**Cc:** Cabinet Secretary for the Rural Economy <<redacted> Minister for Public Health, Sport and Wellbeing <redacted>

**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted>,

Ms Gougeon has noted, and has asked whether we are risk assessing sites?

Thanks

<redacted>

Assistant Private Secretary  
Minister for Rural Affairs and the Natural Environment  
2N.08 St Andrew's House | Regent Road | Edinburgh | EH1 3DG

📞 <redacted>

[MinisterRANE@gov.scot](mailto:MinisterRANE@gov.scot)

Please check our updated [Ministerial preferences!](#)

All e-mails and attachments sent by a Ministerial Private Office to any other official on behalf of a Minister relating to a decision, request or comment made by a Minister, or a note of a Ministerial meeting, must be filed appropriately by the recipient. Private Offices do not keep official records of such e-mails or attachments.

Scottish Ministers, Special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See [www.lobbying.scot](http://www.lobbying.scot)

**From:** <redacted>

**Sent:** 25 April 2019 09:36

**To:** Minister for Rural Affairs and the Natural Environment <redacted>

**Cc:** Cabinet Secretary for the Rural Economy <redacted> DG Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing <redacted>

**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted>,

Below is a summary of the research paper's abstract.

To answer Ms Gougeon's question about Scotland's actions, at present, no mitigation has been done in Scotland as there has been no proven detrimental effects on animal or human health from the burial pits. There is also the possibility that recovering BSE infected animals risks bringing buried prions to the surface which could further risk infection.

#### Summarised Abstract

*The carcasses of animals infected with BSE that remain in the environment (exposed or buried) may continue to act as reservoirs of infectivity. We conducted two experiments under near-field conditions to investigate the survival and dissemination of BSE infectivity after burial in a clay or sandy soil. BSE infectivity was either contained within a bovine skull or buried as a separate part of BSE-infected brain. Throughout the five-year period of the experiment, BSE infectivity was recovered in similar amounts from heads exhumed annually from both types of soil. Very low levels of infectivity were detected in the soil immediately surrounding the heads, but not in samples remote from them. Similarly, there was no evidence of significant lateral movement of infectivity from the burial area over 4 years although there was a little vertical movement in both directions. However, analysis of limited numbers of samples of rain water that had drained through the burial area indicated that infectivity was present in filtrates – raising concern that leakage of infectivity into ground water could occur. We conclude that TSE infectivity is likely to survive burial for long periods of time, but not to migrate far from the site of burial unless a vector or rain water drainage transports it. Risk assessments of contaminated sites should take these findings into account.*

Thanks,

<redacted>

<redacted> | Animal Health and Welfare Division | Disease Prevention Team | P Spur, Saughton House, Edinburgh | <redacted> | Ex: <redacted>



Scottish Government  
Riaghaltas na h-Alba  
gov.scot

**From:** <redacted> <<redacted> On Behalf Of Minister for Rural Affairs and the Natural Environment

**Sent:** 23 April 2019 17:51

**To:** <redacted>

**Cc:** Cabinet Secretary for the Rural Economy <<redacted> DG Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing

<redacted> <redacted>

**Subject:** RE: Briefing - BSE- Burial pits in Scotland

<redacted>

Ms Gougeon has noted, however comments the FMQ brief hasn't really given her the details she was after. It would be helpful if officials were able to provide her with a synopsis of the study/publication, that led to the news coverage, and it's outcome. Also information on what we're doing in Scotland, if anything?

Thanks

<redacted>

Private Secretary to the Minister for Rural Affairs and the Natural Environment

<redacted>

[MinisterRANE@gov.scot](mailto:MinisterRANE@gov.scot)

All e-mails and attachments sent by a Ministerial Private Office to any other official on behalf of a Minister relating to a decision, request or comment made by a Minister, or a note of a Ministerial meeting, must be filed appropriately by the recipient. Private Offices do not keep official records of such e-mails or attachments.

Scottish Ministers, Special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See [www.lobbying.scot](http://www.lobbying.scot)

**From:** <redacted>

**Sent:** 10 April 2019 12:27

**To:** Minister for Rural Affairs and the Natural Environment <redacted>

**Cc:** Cabinet Secretary for the Rural Economy <redacted> DG Economy <redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health, Sport and Wellbeing

<redacted>

**Subject:** Briefing - BSE- Burial pits in Scotland

<redacted>,

(See Document A)

Please see attached brief on BSE burial pits as requested by Ms Gougeon.

Kind regards

<redacted>

<redacted>

Disease Prevention  
Animal Health and Welfare Division (P Spur)  
Directorate for Agriculture Food and Rural Communities, Scottish Government  
Saughton House, Broomhouse Drive, Edinburgh, EH11 3XD

Tel: <redacted>  
Fax: <redacted>



#### Email chain 19

**From:** <redacted> <redacted> **On Behalf Of** Minister for Rural Affairs and the Natural Environment  
**Sent:** 04 April 2019 18:02  
**To:** <redacted>  
**Cc:** <redacted> DG Economy <redacted> Cabinet Secretary for the Rural Economy  
<redacted> Communications Rural Economy & Environment <redacted> Minister for Public Health,  
Sport and Wellbeing <redacted>  
**Subject:** Burial pits

<redacted>

Ms Gougeon mentioned during your catch-up the other day that she'd noted the article below over the weekend and would welcome official advice.

<https://www.thetimes.co.uk/article/mad-cow-disease-burial-pits-may-still-still-pose-a-threat-0c2r1tk2>

Are there any farms in Scotland affected, if so how many? How much of a risk does this pose? Are we doing any work to mitigate the risk?

Grateful if you could provide advice by 4pm on Wednesday 10<sup>th</sup> April.

Thanks

<redacted>

Private Secretary to the Minister for Rural Affairs and the Natural Environment

<redacted>

[MinisterRANE@gov.scot](mailto:MinisterRANE@gov.scot)

All e-mails and attachments sent by a Ministerial Private Office to any other official on behalf of a Minister relating to a decision, request or comment made by a Minister, or a note of a Ministerial meeting, must be filed appropriately by the recipient. Private Offices do not keep official records of such e-mails or attachments.

Scottish Ministers, Special advisers and the Permanent Secretary are covered by the terms of the Lobbying (Scotland) Act 2016. See [www.lobbying.scot](http://www.lobbying.scot)

## Email chain 20

**From:** <redacted>  
**Sent:** 02 April 2019 09:40  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** RE: FMQ Brief BSE Burial Pits Due Tuesday 10:30am

Thanks <redacted> for this and also the update on your team. <redacted> made the same comment and reflected this in the updated briefing.

<redacted>

**From:** <redacted>  
**Sent:** 02 April 2019 09:34  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** RE: FMQ Brief BSE Burial Pits Due Tuesday 10:30am

Hi <redacted>

I have spoken with colleagues here and in HPS about this and have suggested an addition to the brief to reflect the low number of cases of BSE reported in recent years (attached). We haven't seen the details of the research findings but the current epidemiology of cases of vCJD and BSE in recent years does not support a view of increasing risk to public health at this time.

Just to let you know <redacted> is now on adoption leave for 6 months and <redacted> no longer works in Health Protection. <redacted> is providing cover for <redacted> and <redacted> will be taking over from <redacted> on the 9<sup>th</sup> of April.

Thanks

<redacted>

<redacted> | Infectious Diseases | Health Protection Division | Scottish Government | 3E St Andrew's House | Regent Road | Edinburgh | EH1 3DG | <redacted>

**From:** <redacted>  
**Sent:** 01 April 2019 16:51  
**To:** <redacted> **Cc:** <redacted>  
**Subject:** FMQ Brief BSE Burial Pits Due Tuesday 10:30am  
**Importance:** High

Dear all

Apologise for the last minute briefing request. We have been asked to provide FMQ briefing on a news article on BSE burial pits from the 90s posing a public health risk. Here is a link to one of the news articles:

<https://www.edinburghnews.scotsman.com/news/mad-cow-disease-burial-pits-still-a-risk-to-public-health-warn-edinburgh-university-experts-1-4898836>

As you will see this relates to research carried out by the Roslin Institute which has been funded by Defra. AHW colleagues are completely unsuspected on this research work and press interest in this also appears to have caught Defra off guard as well, who similarly struggled to provide information for a Sunday Times request. We are unlikely to get specific details if there were any BSE burial sites in Scotland before our deadline. I have drafted a very general note on BSE with a brief mention to prions being difficult to destroy. I also have some information about vCJD that Public Health colleagues may want to comment on.

Is it possible to receive comments by 10:00 am tomorrow please?

Thanks

<redacted>

**Email chain 21**

**From:** <redacted>  
**Sent:** 01 April 2019 11:25  
**To:** <redacted> **Cc:** <redacted>  
**Subject:** FMQ Brief Burial Pits Due Tuesday 10:30am  
**Importance:** High

Hello <redacted>,

The FMQ team are needing a brief on BSE - Burial pits could still pose public risk - Monday Scotsman p17. Please note the deadline is 10:30 am tomorrow. Grateful if you could confirm this has been picked up.

Please find a blank FMQ template attached

**Please see below reminder re formatting of your FMQ brief:**

- **Do not write SG it has to be “The Scottish Government” or “we”.**
- **Words should be typed out in full e.g. 1m should be 1 million**
- **Include punctuation throughout the brief, including full stops at the end of bullet point sentences.**
- **All headings throughout the brief should be no more than 2 lines long max.**

**If the above is not followed the FMQ team will return your brief.**

Please find links to the guidance below:

**Please keep bullet points at a maximum 2 lines per bullet point to enable FM to read these out in chamber.**

**Preparing FMQs Page** – <http://saltire/my-workplace/ministerial-preferences-and-support/best-practice/Pages/Preparing-FMQs.aspx>

Regards,

<redacted>

<redacted>, FMQ & PQ Support Officer,  
Room 1N.04, St Andrews House, Edinburgh EH1 3DG

<redacted>



*Please be aware when answering a PQ the “DG for re-draft scrutiny” option should only be used by Transport Scotland colleagues. Actions Officers in all other areas should send PQs to “Private Office for approval”.*

Email chain 22

<redacted> Sent: 02 April 2019 09:06 <redacted>

**Subject:** FW: BSE - burial pits - FMQ briefing.

Hi <redacted>

Probably more for information. We received an update from Defra and it looks like 4 landfill sites buried confirmed BSE cases. Unable to confirm how many but looks like small numbers, 1 to 5 animals.

Castletown Tip, Castletown, Thurso, Caithness

Middleton Fors, Thurso

North Forr, Crieff, Perthshire Closed

Stoneyfield, Invergordon, Ross & Cromarty

<redacted>

<redacted>

<redacted>

**From:** <redacted>

**Sent:** 01 April 2019 17:49

**To:** <redacted>

**Cc:** <redacted>

**Subject:** RE: BSE - burial pits - FMQ briefing.

Hi <redacted>,

Down in London we spent a large part of Friday dealing with a Sunday Times query on this very subject. Having discussed with <redacted> (to whom many thanks) I attach a copy of the lines agreed over the weekend.

The Sunday Times journalist had found a list of burial sites published in the Independent in 1997, which is in the attached email. It includes four burial sites in Scotland. This is all we have at such short notice: official information on BSE burial sites may be held on archived paper files, but nothing has ever been digitised, and it would be a massive job to recover all of the files and then work through them.

Here is a link to the published paper, which was commissioned by Defra:

<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=8786&FromSearch=Y&Publisher=1&SearchText=SE1433&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description>  
<https://link.springer.com/article/10.1007%2Fs00705-019-04154-8>

If you need an estimate of how many animals were buried during the BSE and FMD outbreaks, the Anderson Report 2001 covers the 2001 FMD outbreak and has some very useful figures in it on pages 170/171. These figures were correct at the time of printing, but we understand that some of the on farm burials were later re-assessed and buried material was exhumed and disposed of via other approved methods – we would need time to check this and provide a comprehensive answer:

[https://webarchive.nationalarchives.gov.uk/20100809110813/http://archive.cabinetoffice.gov.uk/fmd/fmd\\_report/report/SECT\\_18.PDF](https://webarchive.nationalarchives.gov.uk/20100809110813/http://archive.cabinetoffice.gov.uk/fmd/fmd_report/report/SECT_18.PDF) <https://webarchive.nationalarchives.gov.uk/20100702215127/http://archive.cabinetoffice.gov.uk/fmd/>

No animals were buried as part of the 2007 FMD outbreak.

I hope that this helps – I am sorry that it is all I can provide in time for your deadline.

Best wishes

<redacted>

Defra

Future Animal & Public Health, Endemics & Traceability Directorate  
ABP/TSE Team

Area 2B, Nobel House  
17 Smith Square  
London SW1P 3JR  
<redacted>

My email is changing – from 31 March 2019 GSI will be removed. The address will <redacted> and is already working so please use it from now on.

**From:** <redacted>  
**Sent:** 01 April 2019 13:16  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** BSE - burial pits - FMQ briefing.

<redacted> –

We were unaware of this announcement from Roslin / Nottingham about their Defra funded study on prion survival in soil. My colleagues have to provide First Minister's briefing by tomorrow morning. I anticipate that SEPA colleagues would lead.

<https://www.edinburghnews.scotsman.com/news/mad-cow-disease-burial-pits-still-a-risk-to-public-health-warn-edinburgh-university-experts-1-4898836>

Do you have any headline information about the location and number of dedicated BSE carcass burial sites in GB? I can't recall that we have any in Scotland, although dead cattle were being buried routinely until the Animal by Products Regulations banned that practice outside of remote areas.

We also need sight of the published paper / Defra lines etc - if you have that too?

Cc <redacted> APHA

Thanks,

<redacted>  
Veterinary Adviser (Notifiable Diseases),  
Animal Health and Welfare Division,  
Agriculture and Rural Economy Directorate,  
Scottish Government,  
Saughton House,  
Broomhouse Drive,  
Edinburgh EH11 3XD,

**Email chain 23**

**From:** <redacted>

**Sent:** 01 April 2019 12:05

**To:** <redacted>

**Cc:** <redacted>

**Subject:** RE: FMQ Brief Burial Pits Due Tuesday 10:30am

Apologies I saw 'burial pits' in the title and thought FMD, not BSE. Now I have read the article.

<https://www.edinburghnews.scotsman.com/news/mad-cow-disease-burial-pits-still-a-risk-to-public-health-warn-edinburgh-university-experts-1-4898836>

Can we get a copy of the report from Defra please – <redacted> were you aware of this project?

Do we have any of these pits in Scotland?

I am on leave now.

<redacted>

*Animal Health - Disease Prevention | Directorate for Agriculture and Rural Economy | Scottish Government | <redacted>*

Hi <redacted>

Just to update you, the journalist has been asking the burial sites this afternoon.

In the late 1980s during the BSE crisis, it was confirmed in parliament that more than 6,000 animals were buried. It was reported in the media that up to 55 sites were used but the government of the day indicated it did not have an inventory of all sites. Our understanding was that we won't know all the sites, so have shared the below with the journalist and have verbally briefed that we're not refusing any info from the journo.

However, the journalist has since come back on email to say they have found a report from 1997 with a full list of the sites. This was report in the Independent at the time – full copy below.

We have asked policy if there's any further info so as not to appear obstructive. Will keep you posted on anything further on this.

Many thanks,  
<redacted>

## How officials in a hurry tried to bury BSE.

By <redacted> Science Editor.

965 words

30 April 1997

The Independent - London

IND

8

English

(c) 1997 Independent Newspapers (UK) Limited . All rights reserved. This material may not be published, distributed or exploited in any way.

The map on this page is a picture of desperation. It shows where between 1988 and 1991 the Government, frantically trying to dispose of the carcasses of cattle with bovine spongiform encephalopathy (**BSE**) or "mad cow disease", was forced to bury a total of 6,117 out of the 48,819 cases - 12.5 per cent - recorded in those four years.

The reason they were buried is that there were then too few incinerators to destroy them. Those then available were working at full capacity. After 1991, more incinerators came on line.

But this map may have more significance than just recording where the bodies - with their heads but not their equally infected spinal cords removed - were buried.

It may also contain clues to the 17 cases recorded so far in Britain of people with the "new variant" of the fatal Creutzfeldt-Jakob disease (CJD). Scientists are increasingly confident that the "new variant" CJD is caused by exposure to the **BSE** agent. What they are not sure of is exactly what form that exposure takes. The most likely form is through eating food made using the brains and spinal cords of **BSE**-infected cattle.

But it could be made more likely if the infectious **BSE** agent - thought to be a misshapen protein called a "prion" - is present in the water, by leaching from a landfill site into the local water table.

It is understood that scientists at the Government's CJD Surveillance Unit in Edinburgh have not yet seen the list of burial sites. But they are also thought not to have found any environmental link between the 17 victims so far.

It may be significant, though, that Stephen Churchill, who in May 1995 became the first Briton to die of the "new variant" CJD, lived in Devizes, Wiltshire, just a few miles from the largest of the dumps in Pewsey, where more than 1,000 **BSE**-infected cattle were buried from 1988 onwards. Other CJD victims grew up near sites which had been used for landfill - though the correlation is weak.

Last May, the independent advisory committee on **BSE** and CJD advised the Government that there was "little risk" that leakage from landfill sites presented any significant risk, and that there was "certainly no justification for taking heroic measures to excavate the sites".

However, some members of the advisory committee have said privately that any infectious material in the cattle could infect water supplies.

The scientific theories say that once the "prion" reaches the brain, it causes other normally-shaped prion proteins to become misshapen. This in turn leads to the death of the brain cells, causing the "holes" which give the dead brain a spongy appearance.

According to this theory, the greater the exposure to disease prions, the more likely somebody is to fall ill. If prions leached from the spine of an infected cow buried in a landfill

site, and into the water supply, they might tip a person's intake of prions beyond a particular danger level, and trigger the disease.

The Ministry of Agriculture, Fisheries and Food and the Environment Agency said last night that they were carrying out risk assessments of a set of the landfill sites used for the burials.

British landfill sites where suspected **BSE** carcasses were disposed of in 1988-91

SITE COMMENT

1,000-1,200 carcasses

Everleigh Tip, Everleigh, Pewsey, Wiltshire Closed

501-999

Stoney Hill Landfill, Horsehay, Telford, Shropshire Closed

401-500

Hill & Moor Landfill Site, Pershore, Hereford & Worcester

201-400

Wardle Landfill Site, Wardle, near Nantwich, Cheshire Closed

Arpley Landfill Site, Arpley, Warrington, Cheshire

Whites Pit, Arrowsmith Road, Poole, Dorset Closed

Attlebridge Landfill Site, Attlebridge, Norfolk

Welford Quarry Landfill Site, Welford, Northamptonshire

Hirnley Wood Landfill Site, Lower Gornal, Staffordshire

101-200

Jameson Rd Landfill Site, Fleetwood, Lancashire

Salt Ayre Landfill Site, Lancaster

Winterton Landfill Site, West Haulton, Scunthorpe, Lincolnshire

Rock Cottage Landfill, Ripon, North Yorkshire Closed

Gamblethorpe Landfill Site, Newsam Green Road, Leeds Closed

51-100

Taddington Landfill Site, Kalton Hill Quarry,

Taddington, Derbyshire Closed

Crich Landfill Site, Crich, near Matlock, Derbyshire Closed

Gainsborough Lea Road, Gainsborough, Lincolnshire

Packington Landfill, Little Packington, Meriden, Warwickshire

21-50

Butchersfield Landfill Site, Rixton, Warrington, Cheshire

Blooming Heather, Broughton Moor, Cumbria Closed

Clifton Marsh, Freckleton, Lancashire

Rowley Landfill Site, Queen Park Road, Burnley, Lancashire

Lackford Hall Heath, Lackford, Bury St Edmunds, Suffolk

Bramford Landfill Site, Ipswich, Suffolk Closed

Ryton Landfill, Ryton-on-Dunsmore, Warwickshire Closed

Darrington Quarry, Darrington Leys, Knottingly, North Yorkshire

Mickleby Landfill, near Whitby, North Yorkshire

11-20

Stretton Sugwas, Worcester, Hereford and Worcester Closed

Whinney Hill, Accrington, Lancashire

Kirkby-on Bain, Tattershall Road, Leadenham, Lincolnshire

Leadenham Quarry, Porrergate Road, Leadenham

South Thoresby, near Alford, Lincolnshire Closed

Ingham, Thetford Road, Ingham, Bury St Edmunds, Suffolk Closed

Searner Carr Landfill Site, Searner, North Yorkshire

6-10

Pluckley Landfill Site, Pluckley, Ashford, Kent Closed

Kenwick Landfill Site, Kennick Quarry, Louth, Lincolnshire

Seghill, Northumberland

Barnstone Landfill Site, Works Lane, Lanham, Nottinghamshire

Jarvis Landfill Site, Hawton, Newark, Nottinghamshire Closed

Dimmer Landfall Site, Castle Cary, Somerset Closed

Wetherden Landfill Site, Stowmarket, Suffolk

Acton Landfill Site, Bears Pit, Sudbury, Suffolk Closed

Beddington Landfill Site, Lewes, East Sussex

1-5

Nantycaws Refuse Tip, Carmarthen

Castletown Tip, Castletown, Thurso, Caithness

Middleton Fors, Thurso

Holiday Moss, Rainford, Merseyside

Morley Greasework Site, Dewsbury Road, Leeds Closed

Nettleton, Woods Hill, Nettleton, Lincolnshire Closed

Stainby, Crabtree Road, Stainby, Grantham, Lincolnshire

Slippery Gowt, Wyberton, Boston, Lincolnshire

North Forr, Crieff, Perthshire Closed

Bryn Posteg Landfill Site, Llandidloes, Powys

Stoneyfield, Invergordon, Ross & Cromarty

Burton Farm Landfill Site, Bishopton, Stratford-on-Avon Closed

Lower Spen Valley, Dewsbury, West Yorkshire

Sugden End Landfill, Crossroads, Keighley, West Yorkshire

Shropps Landfill Site, Wheatley, Halifax, West Yorkshire Closed

Wilson Road Landfill Site, Lowmoor, Bradford, West Yorkshire Closed.

#### **Email chain 24**

<redacted> | Senior Communications Officer  
Direct Line: <redacted>

**From:** <redacted>

**Sent:** 30 March 2019 10:14

**To:** <redacted>

**Cc:** <redacted>

**Subject:** Re: <redacted> TO CLEAR: Sunday Times on BSE and burial pits

Ok

Sent from my iPhone

On 30 Mar 2019, at 09:43, <redacted> wrote:

Hi <redacted>,

There was a confirmed case in Scotland in October last year:

<https://deframedia.blog.gov.uk/2018/10/18/confirmed-case-of-bse-in-scotland/>

Not been anything confirmed since then. And I think the case in October was the first for a couple of years.

I've added a line in red to make the timescale, and added a line to <redacted> point – would you be content to clear this version?

Thanks,

<redacted> | Senior Communications Officer  
<redacted>

**From:** <redacted>

**Sent:** 30 March 2019 09:33

**To:** <redacted>

**Cc:** <redacted>

**Subject:** Re: <redacted> TO CLEAR: Sunday Times on BSE and burial pits

Do we have any new cases of BSE atm? Line makes it sound like we do

Sent from my iPhone

On 30 Mar 2019, at 09:22, <redacted> wrote:

Hi <redacted>,

Please can you also clear the below for us to share with Sunday Times?

Thanks,

<redacted> | Senior Communications Officer  
Direct Line: <redacted>

---

**From:** <redacted>

**Sent:** 29 March 2019 19:19

**To:** <redacted>

**Subject:** <redacted> TO CLEAR: Sunday Times on BSE and burial pits

**To:** <redacted>

**Cleared by:** <redacted>

**Deadline:** ASAP so we can share with the journo

**Issue**

<redacted> from the **Sunday Times** has asked for our response to new research which suggests that BSE can remain in the environment (either exposed or buried) and can continue to act as reservoirs of infectivity.

The research, which was supported by Defra to inform our BSE policy making, has been published in the Archives of Virology and can be found [here](#). The authors buried infected animal parts and measured how infectious they remained over four years. The results indicate that the chance of infection remains over a long period of time and there could be the possibility of spread via water leakage.

<redacted> has asked the below questions in relation to this research:

1. Are we aware of this research and has it informed any review of the management and/or monitoring of burial pits used to dispose of cattle?
2. How many animals are estimated to have been buried during the BSE and FMD outbreaks?
3. How many burial sites were used? Can Defra indicate where these sites are (at least to county level). Were any burial sites located in Scotland?

<redacted> will be using this in a piece in over the weekend.

In the UK, the number of new cases of BSE remains at a very low level and we have strict controls in place to protect the public and animals and to eradicate the disease. Since 2003, on-farm burial of animals in remote locations where no other disposal facilities are available has been banned. This was introduced in response to the Food and Mouth (FMD) outbreak.

All burial sites during the FMD period were built to specifications to avoid any risk of water leakages.

## **Response**

We recommend sharing the below statement which makes clear that the risk of new cases of BSE remains very low and highlights the existing measures in place to ensure this continues.

In addition to this, we recommend sharing the below background briefing to highlight the range of engagement Defra has in this research and how this has helped to inform our policy making in this area.

We will also verbally brief the journalist that we are aware of the report and will consider its findings, as we do with many reports.

### **A Defra spokesperson said:**

“While the number of new cases of BSE in the UK **in the past few years have been** extremely low, we continue to have strict controls in place to protect the public and animals, and ultimately help eradicate this disease. **Research into how to prevent any new cases of BSE is an important part of this.**”

“On-farm burial of animals is banned except in very remote locations where no other disposal facilities are available.”

### **Further info**

BSE

- Since the 1990s it has been mandatory to incinerate TSE suspects and other high TSE risk animals.
- Burial of fallen stock was banned on 1 May 2003 except in remote areas which do not have disposal facilities (Isles of Scilly, Lundy Island, remote Scottish islands).
- This research has been supported by Defra and the Biotechnology and Biological Sciences Research Council. We will look closely at the conclusions of this research which was supported by Defra and evaluate it to inform future policy
- Thanks to strict implementation of the feed ban, the UK is making good progress towards the eradication of BSE.
- We remain vigilant to the threat posed by BSE and the following key controls, that protect public and animal health, will remain in force:
  - the ban on feeding animal protein to farmed animals, which prevents the spread of BSE to animals through feed;
  - removing specified risk material (SRM) – the most risky parts of animals – at slaughter to protect consumers from risk from food
  - surveillance to monitor the level of BSE over time and thereby check on the continued effectiveness of BSE controls
- Following a peak of over 37,000 clinical cases in 1992, the number of new cases now detected by active and passive surveillance continues to decline year on year, with 1 case confirmed in the UK in 2014, 2 cases in 2015, 0 cases in 2016, 0 cases in 2017, 1 case in 2018 and 0 cases so far in 2019.

#### Minimising groundwater leakage from carcase burial sites during FMD 2001

- During FMD 2001, carcase burial pits were successively engineered with increasingly sophisticated liners and leachate collection systems to minimise risk to groundwater.
- All sites were granted groundwater authorisations and discussions on planning consents and other environmental matters have been held retrospectively. All sites have been 'engineered' to provide a safe disposal route and works are ongoing to provide leachate control and monitoring facilities

#### **Email chain 25**

**From:** <redacted>

**Sent:** 02 April 2019 09:02

**To:** <redacted> **Cc:** <redacted>

**Subject:** FW: BSE - burial pits - FMQ briefing.

**Importance:** High

Hi all

Looks like there were 4 landfill sites in Scotland that disposed of 1-5 carcasses:

Castletown Tip, Castletown, Thurso, Caithness

Middleton Fors, Thurso

North Forr, Crieff, Perthshire Closed

Stoneyfield, Invergordon, Ross & Cromarty

I agree with Defra that it would be difficult to recover files on this, they probably have been destroyed.

Should we add this in the top box of the briefing:

- In the late 1980s it was confirmed in parliament that more than 6,000 animals were buried in landfill sites. 4 sites in Scotland were used each burying between 1 and 5 carcasses.

Plus a link to the research paper is hidden in the attached email. Do think we need to change the briefing as it confirms that prions survive in the environment for a long time - <https://link.springer.com/article/10.1007%2Fs00705-019-04154-8>

<redacted>

**From:** <redacted>

**Sent:** 01 April 2019 17:49

**To:** <redacted> **Cc:** <redacted>

**Subject:** RE: BSE - burial pits - FMQ briefing.

Hi <redacted>

Down in London we spent a large part of Friday dealing with a Sunday Times query on this very subject. Having discussed with <redacted> (to whom many thanks) I attach a copy of the lines agreed over the weekend.

The Sunday Times journalist had found a list of burial sites published in the Independent in 1997, which is in the attached email. It includes four burial sites in Scotland. This is all we have at such short notice: official information on BSE burial sites may be held on archived paper files, but nothing has ever been digitised, and it would be a massive job to recover all of the files and then work through them.

Here is a link to the published paper, which was commissioned by Defra:

<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&ProjectID=8786&FromSearch=Y&Publisher=1&SearchText=SE1433&SortString=ProjectCode&SortOrder=Asc&Paging=10#Description>  
<https://link.springer.com/article/10.1007%2Fs00705-019-04154-8>

If you need an estimate of how many animals were buried during the BSE and FMD outbreaks, the Anderson Report 2001 covers the 2001 FMD outbreak and has some very useful figures in it on pages 170/171. These figures were correct at the time of printing, but we understand that some of the on farm burials were later re-assessed and buried material was exhumed and disposed of via other approved methods – we would need time to check this and provide a comprehensive answer:

<https://webarchive.nationalarchives.gov.uk/20100809110813/http://archive.cabinetoff>

[ice.gov.uk/fmd/fmd\\_report/report/SECT\\_18.PDF](https://www.gov.uk/fmd/fmd_report/report/SECT_18.PDF) <https://webarchive.nationalarchives.gov.uk/20100702215127/http://archive.cabinetoffice.gov.uk/fmd/>

No animals were buried as part of the 2007 FMD outbreak.

I hope that this helps – I am sorry that it is all I can provide in time for your deadline.

Best wishes

<redacted>

Defra  
Future Animal & Public Health, Endemics & Traceability Directorate  
ABP/TSE Team  
Area 2B, Nobel House  
17 Smith Square  
London SW1P 3JR  
<redacted>

My email is changing – from 31 March 2019 GSI will be removed. The address will be <redacted> and is already working so please use it from now on.

**From** <redacted>

**Sent:** 01 April 2019 13:16

**To:** <redacted>

**Cc:** <redacted>

**Subject:** BSE - burial pits - FMQ briefing.

<redacted>

We were unaware of this announcement from Roslin / Nottingham about their Defra funded study on prion survival in soil. My colleagues have to provide First Minister's briefing by tomorrow morning. I anticipate that SEPA colleagues would lead.

<https://www.edinburghnews.scotsman.com/news/mad-cow-disease-burial-pits-still-a-risk-to-public-health-warn-edinburgh-university-experts-1-4898836>

Do you have any headline information about the location and number of dedicated BSE carcass burial sites in GB? I can't recall that we have any in Scotland, although dead cattle were being buried routinely until the Animal by Products Regulations banned that practice outside of remote areas.

We also need sight of the published paper / Defra lines etc - if you have that too?

Cc <redacted> APHA

Thanks,

<redacted>

Veterinary Adviser (Notifiable Diseases),  
Animal Health and Welfare Division,  
Agriculture and Rural Economy Directorate,  
Scottish Government,  
Saughton House,  
Broomhouse Drive,  
Edinburgh EH11 3XD,

#### Email chain 26

**From:** <redacted>

**Sent:** 01 April 2019 12:05

**To:** <redacted> **Cc:** <redacted>

**Subject:** RE: FMQ Brief Burial Pits Due Tuesday 10:30am

Apologies I saw 'burial pits' in the title and thought FMD, not BSE. Now I have read the article.

<https://www.edinburghnews.scotsman.com/news/mad-cow-disease-burial-pits-still-a-risk-to-public-health-warn-edinburgh-university-experts-1-4898836>

Can we get a copy of the report from Defra please – <redacted> and <redacted> were you aware of this project?

Do we have any of these pits in Scotland?

I am on leave now.

<redacted>

*Animal Health - Disease Prevention | Directorate for Agriculture and Rural Economy | Scottish Government | <redacted>*

#### Email chain 27

**From:** <redacted>

**Sent:** 01 April 2019 15:52

**To:** <redacted> **Cc:** <redacted>

**Subject:** RE: BSE - burial pits - FMQ briefing.

Thanks <redacted>, I'll get draft briefing out for comment this evening. Surely there will be more important topics to talk about at FMQs on Thursday!

**From:** <redacted>

**Sent:** 01 April 2019 15:39

**To:** <redacted>

**Cc:** <redacted> **Subject:** RE: BSE - burial pits - FMQ briefing.

<redacted> Agreed. <redacted> was in the same position over the weekend, so although she says that she has people on the case, I would not expect much from there by the deadline.

I am currently perplexed by the references (Independent newspaper – historic) her journalist is apparently quoting that four of around 60 BSE burial sites are in Scotland, and the Times quoted (in my last e-mail link) a site in Invernesshire. We cannot find the Roslin source article yet which is also vexing. Need a word with them about Comms when this is over.

SEPA have no records, so they are

<https://www.thetimes.co.uk/article/bse-fear-over-water-from-old-burial-pits-9xzjc6v2p> - Invernesshire?

<redacted>

**From:** <redacted>  
**Sent:** 01 April 2019 15:21  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** RE: BSE - burial pits - FMQ briefing.

Hi <redacted>

<redacted> mentioned to me that we are unlikely to get any information from Defra before tomorrow's 10:30 deadline. Given we are completely unsighted on this the best I can think of is general lines on BSE. Not great but unsure what else would be helpful.

<redacted>

**From:** <redacted>  
**Sent:** 01 April 2019 14:52  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** FW: BSE - burial pits - FMQ briefing.

All – to note.

I have now spoken with <redacted> Defra TSE spent most of Friday – Sunday retrieving information to respond to an equivalent “Sunday Times” Enquiry – which again shows the need for Defra funded researchers to let policy teams know about outputs and announcements that generate these types of urgent enquiry.

<redacted> quoted an “Independent” article from the 1990s referring to four such sites in Scotland. Awaiting further information and Defra lines.

<redacted>

<redacted>

Veterinary Adviser (Notifiable Diseases),  
Animal Health and Welfare Division,  
Agriculture and Rural Economy Directorate,  
Scottish Government,  
Saughton House,  
Broomhouse Drive,  
Edinburgh EH11 3XD,

**From:** <redacted>

**Sent:** 01 April 2019 14:27

**To:** <redacted>

**Cc:** <redacted>

**Subject:** : BSE - burial pits - FMQ briefing.

<redacted>

Further to our telephone conversation; having discussed with my colleague <redacted> in the waste team, we do not hold any information on BSE burial sites in Scotland.

If you can forward the DEFRA study when you receive that would be really helpful, if any Scottish sites were identified in the study we can review what data we hold for that location.

Regards

<redacted>

<redacted> Head of Energy)

---

#### Email chain 28

**From:** <redacted>

**Date:** 1 April 2019 at 13:16:05 BST

**To:** <redacted> **Cc:** <redacted>

**Subject:** BSE - burial pits - FMQ briefing.

<redacted>

We were unaware of this announcement from Roslin / Nottingham about their Defra funded study on prion survival in soil. My colleagues have to provide First Minister's briefing by tomorrow morning. I anticipate that SEPA colleagues would lead.

<https://www.edinburghnews.scotsman.com/news/mad-cow-disease-burial-pits-still-a-risk-to-public-health-warn-edinburgh-university-experts-1-4898836>

Do you have any headline information about the location and number of dedicated BSE carcase burial sites in GB? I can't recall that we have any in Scotland, although dead cattle were being buried routinely until the Animal by Products Regulations banned that practice outside of remote areas.

We also need sight of the published paper / Defra lines etc - if you have that too?

Cc <redacted> APHA

Thanks,

<redacted> Veterinary Adviser (Notifiable Diseases),  
Animal Health and Welfare Division,  
Agriculture and Rural Economy Directorate,  
Scottish Government,  
Saughton House,  
Broomhouse Drive,  
Edinburgh EH11 3XD,

**Email chain 29**

**From:** <redacted>  
**Sent:** 01 April 2019 12:05  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** RE: FMQ Brief Burial Pits Due Tuesday 10:30am

Apologies I saw 'burial pits' in the title and thought FMD, not BSE. Now I have read the article.

<https://www.edinburghnews.scotsman.com/news/mad-cow-disease-burial-pits-still-a-risk-to-public-health-warn-edinburgh-university-experts-1-4898836>

Can we get a copy of the report from Defra please – <redacted> and <redacted> were you aware of this project?

Do we have any of these pits in Scotland?

I am on leave now.

<redacted> *Animal Health - Disease Prevention | Directorate for Agriculture and Rural Economy | Scottish Government | <redacted>*

\*\*\*\*\*

**Email chain 30**

**From:** <redacted>  
**Sent:** 02 April 2019 10:30  
**To:** ET FMQ/PQ Mailbox <redacted>

Cc: <redacted>

**Subject:** FMQ Brief BSE Burial Pits Due Tuesday 10:30am

(Refer to briefing attached above)

Hello,

Please see attached FMQ briefing on BSE burial pits.

Kind regards

<redacted>

<redacted>

Disease Prevention

Animal Health and Welfare Division (P Spur)

Directorate for Agriculture Food and Rural Communities, Scottish Government

Saughton House, Broomhouse Drive, Edinburgh, EH11 3XD

Tel: <redacted>

Fax: <redacted>



**From:** <redacted>

**Sent:** 02 April 2019 09:40

**To:** <redacted>

**Cc:** <redacted>

**Subject:** RE: FMQ Brief BSE Burial Pits Due Tuesday 10:30am

Thanks <redacted> for this and also the update on your team. <redacted> made the same comment and reflected this in the updated briefing.

<redacted>

**From:** <redacted>

**Sent:** 02 April 2019 09:34

**To:** <redacted>

**Cc:** <redacted>

**Subject:** RE: FMQ Brief BSE Burial Pits Due Tuesday 10:30am

Hi <redacted>,

I have spoken with colleagues here and in HPS about this and have suggested an addition to the brief to reflect the low number of cases of BSE reported in recent years (attached). We haven't seen the details of the research findings but the current epidemiology of cases of vCJD and BSE in recent years does not support a view of increasing risk to public health at this time.

Just to let you know <redacted> is now on adoption leave for 6 months and <redacted> no longer works in Health Protection. <redacted> is providing cover for <redacted> and <redacted> will be taking over from <redacted> on the 9<sup>th</sup> of April.

Thanks

<redacted>

<redacted> | Infectious Diseases | Health Protection Division | Scottish Government | 3E St Andrew's House | Regent Road | Edinburgh | EH1 3DG <redacted> | <redacted>

**From:** <redacted>

**Sent:** 01 April 2019 16:51

**To:** <redacted>

**Cc:** <redacted>

**Subject:** FMQ Brief BSE Burial Pits Due Tuesday 10:30am

**Importance:** High

Dear all

Apologise for the last minute briefing request. We have been asked to provide FMQ briefing on a news article on BSE burial pits from the 90s posing a public health risk. Here is a link to one of the news articles:

<https://www.edinburghnews.scotsman.com/news/mad-cow-disease-burial-pits-still-a-risk-to-public-health-warn-edinburgh-university-experts-1-4898836>

As you will see this relates to research carried out by the Roslin Institute which has been funded by Defra. AHW colleagues are completely unsighted on this research work and press interest in this also appears to have caught Defra off guard as well, who similarly struggled to provide information for a Sunday Times request. We are unlikely to get specific details if there were any BSE burial sites in Scotland before our deadline. I have drafted a very general note on BSE with a brief mention to prions being difficult to destroy. I also have some information about vCJD that Public Health colleagues may want to comment on.

Is it possible to receive comments by 10:00 am tomorrow please?

Thanks

<redacted>

**From:** <redacted>  
**Sent:** 01 April 2019 11:25  
**To:** <redacted>  
**Cc:** <redacted> ET FMQ/PQ Mailbox <redacted>  
**Subject:** FMQ Brief Burial Pits Due Tuesday 10:30am  
**Importance:** High

Hello <redacted>,

The FMQ team are needing a brief on BSE - Burial pits could still pose public risk - Monday Scotsman p17. Please note the deadline is 10:30 am tomorrow. Grateful if you could confirm this has been picked up.

Please find a blank FMQ template attached

**Please see below reminder re formatting of your FMQ brief:**

- **Do not write SG it has to be “The Scottish Government” or “we”.**
- **Words should be typed out in full e.g. 1m should be 1 million**
- **Include punctuation throughout the brief, including full stops at the end of bullet point sentences.**
- **All headings throughout the brief should be no more than 2 lines long max.**

**If the above is not followed the FMQ team will return your brief.**

Please find links to the guidance below:

**Please keep bullet points at a maximum 2 lines per bullet point to enable FM to read these out in chamber.**

**Preparing FMQs Page – <http://saltire/my-workplace/ministerial-preferences-and-support/best-practice/Pages/Preparing-FMQs.aspx>**

Regards,  
<redacted>

<redacted>, FMQ & PQ Support Officer,  
Room 1N.04, St Andrews House, Edinburgh EH1 3DG  
<redacted>



*Please be aware when answering a PQ the “DG for re-draft scrutiny” option should only be used by Transport Scotland colleagues. Actions Officers in all other areas should send PQs to “Private Office for approval”.*

---

**Email chain 31**

**From:** <redacted>  
**Sent:** 02 April 2019 09:34  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** RE: FMQ Brief BSE Burial Pits Due Tuesday 10:30am

Hi <redacted>,

I have spoken with colleagues here and in HPS about this and have suggested an addition to the brief to reflect the low number of cases of BSE reported in recent years (attached). We haven't seen the details of the research findings but the current epidemiology of cases of vCJD and BSE in recent years does not support a view of increasing risk to public health at this time.

Just to let you know <redacted> is now on adoption leave for 6 months and <redacted> no longer works in Health Protection. <redacted> is providing cover for <redacted> and <redacted> will be taking over from <redacted> on the 9<sup>th</sup> of April.

Thanks

<redacted>

<redacted> | Infectious Diseases | Health Protection Division | Scottish Government | 3E St Andrew's House | Regent Road | Edinburgh | EH1 3DG | <redacted>

**From:** <redacted>  
**Sent:** 01 April 2019 16:51  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** FMQ Brief BSE Burial Pits Due Tuesday 10:30am  
**Importance:** High

Dear all

Apologise for the last minute briefing request. We have been asked to provide FMQ briefing on a news article on BSE burial pits from the 90s posing a public health risk. Here is a link to one of the news articles:

<https://www.edinburghnews.scotsman.com/news/mad-cow-disease-burial-pits-still-a-risk-to-public-health-warn-edinburgh-university-experts-1-4898836>

As you will see this relates to research carried out by the Roslin Institute which has been funded by Defra. AHW colleagues are completely unsighted on this research work and press interest in this also appears to have caught Defra off guard as well, who similarly struggled to provide information for a Sunday Times request. We are unlikely to get specific details if there were any BSE burial sites in Scotland before our deadline. I have drafted a very general note on BSE with a brief mention to prions being difficult to destroy. I also have some information about vCJD that Public Health colleagues may want to comment on.

Is it possible to receive comments by 10:00 am tomorrow please?

Thanks

<redacted>

**From:** <redacted>  
**Sent:** 01 April 2019 11:25  
**To:** <redacted>  
**Cc:** <redacted> ET FMQ/PQ Mailbox <redacted>  
**Subject:** FMQ Brief Burial Pits Due Tuesday 10:30am  
**Importance:** High

Hello <redacted>,

The FMQ team are needing a brief on BSE - Burial pits could still pose public risk - Monday Scotsman p17. Please note the deadline is 10:30 am tomorrow. Grateful if you could confirm this has been picked up.

Please find a blank FMQ template attached

**Please see below reminder re formatting of your FMQ brief:**

- **Do not write SG it has to be “The Scottish Government” or “we”.**
- **Words should be typed out in full e.g. 1m should be 1 million**
- **Include punctuation throughout the brief, including full stops at the end of bullet point sentences.**
- **All headings throughout the brief should be no more than 2 lines long max.**

**If the above is not followed the FMQ team will return your brief.**

Please find links to the guidance below:

**Please keep bullet points at a maximum 2 lines per bullet point to enable FM to read these out in chamber.**

**Preparing FMQs Page – <http://saltire/my-workplace/ministerial-preferences-and-support/best-practice/Pages/Preparing-FMQs.aspx>**

Regards,  
<redacted>

<redacted>, FMQ & PQ Support Officer,  
Room 1N.04, St Andrews House, Edinburgh EH1 3DG

<redacted>



*Please be aware when answering a PQ the “DG for re-draft scrutiny” option should only be used by Transport Scotland colleagues. Actions Officers in all other areas should send PQs to “Private Office for approval”.*

---

**Email chain 32**

**From:** <redacted>  
**Sent:** 02 April 2019 09:34  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** RE: FMQ Brief BSE Burial Pits Due Tuesday 10:30am

Thank you all for your help with this, I will feed back to AHW colleagues

Kind regards

<redacted>

<redacted> | Infectious Diseases | Health Protection Division | Scottish Government | 3E St Andrew's House | Regent Road | Edinburgh | EH1 3DG | <redacted>

**From:** <redacted>  
**Sent:** 02 April 2019 09:32  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** Re: FMQ Brief BSE Burial Pits Due Tuesday 10:30am

Dear All,

Sorry to be late to come to this.

I concur with what has been expressed by <redacted> and <redacted>. The point about cattle being the most susceptible species, with the shortest incubation period for BSE (albeit long) among species we are being vigilant about, should mean that we would expect any risk arising to be manifest in more cattle cases...and these are not being seen.

<redacted>

---

**From:** <redacted>  
**Sent:** 02 April 2019 09:08  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** RE: FMQ Brief BSE Burial Pits Due Tuesday 10:30am

I have nothing further to add to <redacted> and <redacted> informative replies. Thank you both.

Thank you.  
Best wishes,  
<redacted>

<redacted>  
**Consultant in Public Health Medicine**  
**Public Health Lead, National Planning**  
<redacted>

National Services (NSD), Information Services (ISD) & Health Protection Scotland (HPS)  
**PA:** <redacted>  
NHS National Services Scotland, Gyle Square, Edinburgh, EH12 9EB

**From:** <redacted>  
**Sent:** 02 April 2019 08:56  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** RE: FMQ Brief BSE Burial Pits Due Tuesday 10:30am

Colleagues,

I agree with <redacted> comments. Without seeing the exact details of the research findings I think it is difficult to respond in any other terms.

From what i understand from the press reports it was suggested that there might be a risk from contamination of leachate run-off getting into groundwater.  
If there are any burial sites in Scotland then hopefully the potential risk of leachate run-off would have been anticipated and action taken to mitigate it but each site would need to be considered individually to determine this. If there was any such leachate run off, I think it could only plausibly pose a hazard if the ground water was able to contaminate supplies that are then used for animal or human consumption.

Regards

<redacted>  
**Consultant Epidemiologist**  
**Environmental Public Health**  
**Health Protection Scotland**  
Telephone number: Direct Dial: <redacted>  
Mobile: <redacted>

Please consider the environment before printing this email.  
NHS National Services Scotland is the common name for the Common Services Agency for the Scottish Health Service. [www.nhsnss.org](http://www.nhsnss.org)

**From:** <redacted>  
**Sent:** 02 April 2019 08:22

**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** RE: FMQ Brief BSE Burial Pits Due Tuesday 10:30am

Dear All,

The key issue is the risk posed by persistence in the environment of prion protein after burial in soil. The interpretation of the risk to public health from these findings is the opinion of these researchers and in the absence of any link to any purported cases or outbreaks of BSE or vCJD should in my view, necessarily be regarded as extremely low. The current epidemiology of cases of vCJD and BSE in recent years does not support a view of increasing risk to public health at this time.

In respect of the briefing it is light on the on the numbers of cases of BSE in recent years. The latest reported information at ACDP TSE (14<sup>th</sup> February 2019) was that the incidence of BSE cases in GB is very low. In 2013 there were 3 cases of BSE down from a peak of over 36,000 in 1992, and in 2014, 1 BSE case was confirmed. 2 BSE cases were confirmed in 2015, none were confirmed in 2016 or 2017, 1 was confirmed in 2018 and none have been confirmed so far in 2019 (up to 8 February).

I will be interested to hear any other views on this issue.

Kind regards

<redacted>

<redacted>

Senior Medical Officer, Health Protection, Public Health and Environmental Hazards  
CMO Directorate  
Scottish Government  
Room 3E  
St Andrew's House  
2 Regent Road  
Edinburgh EH1 3DG  
Tel: <redacted>  
Email: <redacted>  
Mob: <redacted>

PA: <redacted>  
Tel: <redacted>

**From:** <redacted>  
**Sent:** 02 April 2019 07:50  
**To:** <redacted>  
**Cc:** <redacted>  
**Subject:** FW: FMQ Brief BSE Burial Pits Due Tuesday 10:30am  
**Importance:** High

Hi,

We have been asked to comment on the attached briefing on burial of stock potentially culled in response to the BSE outbreak (see below).

Grateful if you could have a look and provide any comments.

Animal health colleagues are looking for comments by 10 if possible.

Kind regards

<redacted>

<redacted>

Infectious Diseases - Health Protection Division

<redacted>

**From:** <redacted>

**Date:** Monday, 01 Apr 2019, 4:50 pm

**To:** <redacted>

**Cc:** <redacted>

**Subject:** FMQ Brief BSE Burial Pits Due Tuesday 10:30am

Dear all

Apologise for the last minute briefing request. We have been asked to provide FMQ briefing on a news article on BSE burial pits from the 90s posing a public health risk. Here is a link to one of the news articles:

<https://www.edinburghnews.scotsman.com/news/mad-cow-disease-burial-pits-still-a-risk-to-public-health-warn-edinburgh-university-experts-1-4898836>

As you will see this relates to research carried out by the Roslin Institute which has been funded by Defra. AHW colleagues are completely unsighted on this research work and press interest in this also appears to have caught Defra off guard as well, who similarly struggled to provide information for a Sunday Times request. We are unlikely to get specific details if there were any BSE burial sites in Scotland before our deadline. I have drafted a very general note on BSE with a brief mention to prions being difficult to destroy. I also have some information about vCJD that Public Health colleagues may want to comment on.

Is it possible to receive comments by 10:00 am tomorrow please?

\*\*\*\*\*

