

Health and Safety Executive Board		HSE/11/15	
Meeting Date:	23 February 2011	FOI Status:	Fully Open
Type of Paper:	Above the line	Exemptions:	
TRIM Reference:	2011/79297		

## Implementation of the Griffin Investigation Committee report into the outbreak of *E.coli* O157 in Surrey (2009)

### Purpose of the paper

1. This paper informs the Board about:
  - HSE's and Local Government Regulation's (LGR) involvement with the independent Griffin Investigation Committee (the Committee) set up by the Health Protection Agency (HPA) to investigate the outbreak of *E.coli* O157 at Godstone Farm, Surrey in 2009
  - The Committee's conclusions and recommendations and their implications for HSE
  - HSE's and LGR's involvement in the multi-agency implementation group set up by the HPA to progress the recommendations; and
  - Agreed priorities and actions and work in progress.

### Background

2. In late summer 2009 an outbreak of *E.coli* O157 led to severe illness in 93 members of the public who had visited Godstone Farm in Surrey. Godstone Farm is an 'open farm' (a visitor attraction specifically encouraging contact with exhibited farm and domesticated animals). It has been in operation for over 25 years. It receives upwards of 200,000 visitors each year and in peak periods, up to 2000 visitors a day. Godstone Farm is primarily a leisure/entertainment undertaking, and as such, enforcement responsibility under the Health and Safety at Work Act falls to the Local Authority (LA), Tandridge District Council.
3. Seventy-six of those infected were under 10 years of age. Twenty-seven were admitted to hospital, including 17 children who were seriously ill, 8 of whom required dialysis. Some (will have suffered long-term damage. Further information about *E.coli* O157 is at Annex 1.
4. Godstone Farm was the largest outbreak of *E.coli* O157 from animal contact recorded to date in GB. HSE and LGR assisted the HPA and Tandridge District Council in investigating the outbreak and also provided support to the Outbreak Control Team.
5. In September 2009, the HPA set up an independent investigation into the outbreak, the factors that contributed to it and its subsequent handling. A team of independent experts was established, chaired by Professor George Griffin, Professor of Infectious Diseases and Medicine at St George's, University of

6. The Committee's report, published on 15 June 2010, is available at <http://www.griffininvestigation.org.uk/>. Although the Committee was unable to identify the specific source of the outbreak, it concluded it was not exceptional other than in terms of its size. The report made 43 recommendations, 17 of which were directed to HSE, either alone or in association with other agencies/ partner organisations (see Annex 3). HSE publicly welcomed the release of the report as contributing to better understanding of the risks from the bacteria and risk management at open farms
7. Professor Griffin's report was presented to, and accepted by, the HPA Board in June 2010, which set up a multi-agency implementation group to take the recommendations forward. HSE and LGR are members of this Godstone Multi-agency Implementation Committee (GMAIC). Its remit is to consider the recommendations and prioritise and provide strategic oversight of the actions required for implementation, with a view to completion of the work by August 2011. HSE chairs a sub-group addressing the guidance and enforcement issues at recommendations 17-30.
8. Since 1998, HSE has published relevant guidance in the form of Agriculture Information Sheet 23 (rev): 'Avoiding ill health at open farms – Advice to farmers (with teachers' supplement' (AIS23)). Following analysis of the data available at that time, it was concluded that the risk from *E.coli* O157 was greater to children (and others) visiting farms than the occupational risk to farmers and farm workers. As a result, AIS23 was aimed at the owners/ operators of open farms and, through a supplement, at teachers or others in charge of educational or recreational visits, rather than at the farming community. That assessment of relative risk remains valid.
9. The guidance in AIS23 assumes that *E. coli* O157 and other microbiological hazards, are always liable to be present on farms i.e. that it is not possible to eliminate the potential for exposure. Focusing on controlling the risk, AIS23 has been periodically revised, most recently in June 2009.

## Argument

10. Whilst it has no statutory or other status, the report and proposals for implementation have been drawn to the attention of Health Ministers.
11. Prior to publication of the report, HSE had concluded it could agree to the majority of the recommendations directed at it, including those calling for:
  - A review of current inspection policy [recommendation 19]
  - A review of all existing guidance [recommendation 24]; and
  - Clarification of powers of enforcement [recommendation 26].

This work is in progress with the input and support of members of the GMAIC.

12. However two recommendations posed particular difficulties for HSE and LGR, namely:
  - a call for re-assessment of the risk of *E.coli* O157 infection [recommendation 13]; and
  - a call for HSE to take the lead in developing an Approved Code of Practice (ACoP) for the open farm industry [recommendation 25].
13. With respect to recommendation 13, HSE and LGR are concerned that this is based on a different approach to risk assessment than that which underpins our regulatory policy and legislation. While acknowledging that the hazard i.e. individual cases of infection, particularly those involving young children or the elderly, can be very serious for those affected, the risk needs to be seen in the context of a historically very low incidence of infection at open farms (see Annex 2). Although the number of reported cases of *E. coli* O157 infection varies from year-to-year, there is no evidence to suggest a substantive increase in the prevalence or incidence of infection in GB. Given an estimated 10 million visitors to open farms each year, we consider the risk of infection to be low and that it can continue to be adequately controlled to levels and in ways which are acceptable to society by:
  - Applying the existing regulatory regime, including some pro-active inspection; and
  - Duty-holders implementing the established measures set out in AIS23.
14. Rather than engage in further debate about hazard and risk, HSE and LGR has proposed working with the industry to help it develop its own viable and sustainable standards to address the risk. Development of an industry code of practice, based on current advice/guidance as to good practice, is the first step in a package of measures to address this and other recommendations made by the Committee, including the development of an industry accreditation scheme.
15. Encouraging the industry to take ownership of the problem and to demonstrate leadership in developing reasonably practicable and sustainable solutions is consistent with the Coalition Government's approach to better regulation and HSE's strategy.
16. The first meeting of a working group comprising the main industry representative bodies i.e. Farming and Countryside Education (FACE), the Federation of City Farms and Community Gardens, the National Farm Attractions Network (NFAN), the National Farmers Union (NFU), HSE and the LGR, took place in January 2011. HSE envisage the current revision of AIS23 called for by Professor Griffin as being a temporary measure, which in the longer term will be superseded by the industry's own code of practice.
17. Recommendation 25 proposes an Approved Code of Practice (AcoP) on the basis that, "The existing regulatory structure is not securing compliance with standards and is unlikely to prevent future outbreaks at open farms unless reinforced". HSE is not aware of evidence of any substantive increase in the number of reported outbreaks at open farms and believes the regulatory framework remains fit-for-purpose. Whilst AIS23 does not have the status of

legislation or an ACoP, it is a benchmark of good practice and has been used as such by HSE and the LAs in support of enforcement action since 1998.

18. Although section 16 of the Health and Safety at Work Act empowers HSE to approve and issue approved codes of practice with the consent of the Secretary of State and section 17 governs the use of approved codes of practice in criminal proceedings, HSE has not promoted the use of ACoPs for some years. An ACoP is considered a less flexible mechanism for dealing with emerging knowledge or future technical developments and would confer little regulatory advantage (over existing guidance) in managing the risk of *E.coli* O157 infection at open farms. The key control measures are relatively straightforward.
19. Neither do we believe the approach to be practicable in the current 'better regulation' environment, where it would be in scope of the 'One-in, One-out' principle. The approval of the Reducing Regulation Committee would be necessary and is unlikely to be secured.
20. Initial work carried out on a Short Impact Assessment by the Economic Analysis Unit does not suggest there would be significant health and safety benefits from the introduction of an ACoP. For these reasons we propose that the industry be encouraged to develop and implement an industry code of practice. Such a code would be authoritative and sufficiently flexible to take account of future scientific knowledge and understanding of the risks and management of them and of any future changes in good practice.

## **Action**

21. The Board is invited to:
  - Note the publication of the Griffin Committee's report in June 2010, its recommendations and HSE's involvement in the multi-agency group set up to progress the recommendations;
  - Confirm that the development of an ACoP should not be proceeded with;
  - Support the approach to risk and risk management in this context as described in this paper; and
  - Agree to the approach to the recommendations directed at HSE;
  - Support the remaining recommendations, in particular awareness-raising and the communication of risk information among healthcare practitioners and the public.

## **Paper clearance**

1. 22. Cleared by the HSE Senior Management Team on 2<sup>nd</sup> February 2011.

## **E.coli O157**

*E. coli* are common bacteria, which live in the intestines of warm blooded animals. Certain strains are normally found in the intestine of healthy people and animals without causing any ill effects; others are known to cause illness in people. Amongst the latter is a group of bacteria known as Vero cytotoxin-producing *E. coli* or VTEC; including *E. coli* O157.

VTEC can cause illness ranging from mild through severe bloody diarrhoea to haemolytic uraemic syndrome (HUS) which affects the blood, kidneys and in severe cases the central nervous system. VTEC are relatively rare as the cause of infectious gastro-enteritis in Great Britain (GB); however the disease can be fatal, particularly in infants, young children and the elderly

Transmission of *E. coli* O157 occurs in the majority of cases by ingestion from sources such as water, food products and contact with animals. Concerns about the health risks from *E. coli* O157 first emerged in the early 1990s. Outbreaks (defined as 2 or more confirmed cases) involving members of the public, are recorded by the HPA (England and Wales) and Health Protection Scotland. Information on outbreaks of *E.coli* O157 associated with animal contact reported in GB between 1994 and 2010 is set out at Annex 2.

**TABLE 1: OUTBREAKS OF *E.coli* O157 ASSOCIATED WITH ANIMAL CONTACT REPORTED IN ENGLAND AND WALES: 1994-2010**

Year	Number of outbreaks	Number of laboratory confirmed cases	Number of admissions to hospital *	Number of deaths *
1994	2	7	5	0
1997	4	13	7	0
1998	1	4	0	0
1999	3	25	10	0
2000	3	14	7	0
2001	2	16	6	0
2002	1	3	0	0
2003	1	2	2	0
2005	2	12	5	0
2006	1	2	0	0
2007	1	3	2	0
2008	2	8	2	0
<b>Total</b>	<b>23</b>	<b>109</b>	<b>46</b>	<b>0</b>
<b>Average/year</b>	<b>1.5</b>	<b>7.3</b>	<b>3.1</b>	<b>0</b>
2009	6	112 *	33	0
2010	5	17	5	0
<b>Source: Health Protection Agency – January 2011</b>				

\* Includes 93 cases at Godstone Farm

**TABLE 2: OUTBREAKS OF *E.coli* O157 ASSOCIATED WITH ANIMAL CONTACT REPORTED IN SCOTLAND: 2000-2010**

Year	Number of outbreaks	Number of laboratory confirmed cases	Number of admissions to hospital *	Number of deaths *
<b>2000-2009: Published statistics for outbreaks of <i>E.coli</i> O157 is from all sources. Separate data for outbreaks and cases linked to animal contact is not readily available</b>				
2010	2	6	2	0
<b>Source: Health Protection Scotland – January 2011</b>				

## GRIFFIN REPORT RECOMMENDATIONS (2010)

No.	Recommendation	Responsible Authorities
<b>(A) Identification and Control of Outbreaks</b>		
1-12	Directed at the HPA and NHS (clinical and laboratory) services. These recommendations are concerned with the identification and clinical management of cases and with the management of Outbreak Control Teams.	HPA NHS
<b>(B) Risk perception, Risk Assessment and Risk Management</b>		
13	There should be a reassessment of the risk of <i>E.coli</i> O157 infection as 'low' . Its probability may be low but the impact is high and the consequences very severe.	HSE / HPA
<i>Discussed at paras.13-16</i>		
14	Directed at the DH, HPA and farm owners this recommendation is concerned with public education	DH HPA Farm owners
15	Parents of children visiting Open Farms are clearly informed, before entering animal contact areas, that: o Touching or feeding farm animals can be a source of life-threatening infection, particularly in young children o The only way to eliminate this risk entirely is for children to avoid contact with animals and their faeces o It is parents' or carers' choice whether their child is allowed to touch or feed the animals o It is primarily the parent's or carer's responsibility to supervise the washing of their children's hands immediately after leaving the animal contact area, before eating or drinking on the farm, and after removing footwear o Sanitising hand gels do not provide adequate protection alone. They are not a substitute for thorough hand washing but can be of value if used as an additional measure	Farm owners, HSE / LAs
<i>Being taken forward by the GMAIC's Education and Communications Sub-Group and will be reflected in the proposed industry code of practice.</i>		
16	In discharging their duty of care to visitors, owners/ managers of Open Farms should note that: o The farm operator, the public and the regulator all have a role to play in controlling the risk of infection o Primary control measures should be aimed at preventing public contact with faecal matter, rather than at the public washing off the faeces. This should primarily be the responsibility of the farm operator	Farm owners, HSE / LAs

	<ul style="list-style-type: none"> <li>o Hand washing must be actively encouraged as the principal control measure available to the public, in order to further reduce the possibility of contamination</li> <li>o To support effective hand washing, facilities should be directly located at areas of high risk, such as animal contact. Facilities should provide warm water, soap and paper towels and be at the correct heights for adults and children to use</li> <li>o Animal contact areas should be supervised and visitors should be prompted to wash their hands. Staff should be trained in how to promote hand washing, and should advise the public that sanitising gels should only be used as an additional measure</li> </ul>	
	<i>Being taken forward by the GMAIC's Education and Communications Sub-Group and will be reflected in the proposed industry code of practice.</i>	
<b>17</b>	Operational changes are to be addressed as a matter of urgency to ensure the risk of infection with <i>E. coli</i> O157 at Open Farms is kept to a minimum. Operators of Open Farms should ensure that the layout and design of public areas on the farm are such that visitor contact with animal faecal matter is minimised or eliminated	Farm owners, HSE / LAs
	<i>Owner/operators of open farms have been encouraged to review their existing arrangements against the existing AIS23. HSE proposes to issue a revision of AIS23 before April 2011 at which time owner/operators will be encouraged to review their arrangements in the light of the revised guidance.</i>	
<b>18</b>	The LA processes of risk assessment should be reviewed and this should take place within the context of the inspection process and the regulatory framework. A single integrated framework should be assembled for use by Open Farm operators and training made available to support risk assessment	HSE / HPA, LAs / farm owners
	<i>Guidance to the LAs has been revised since the Godstone Farm outbreak. Further guidance on risk assessment will be provided to the owner/operators through the revision of AIS23 and the industry code of practice.</i>	
<b>19</b>	A review should be carried out to establish whether current inspection policy provides the HSE with sufficient knowledge of the Open Farm industry to be able to identify emerging risks; and whether the HSE strategy of using the AIS23 guidance document to provide management of the risks of <i>E. coli</i> O157 infection can be validated by information gained from the farming industry, the LA regulatory system, the HPA and the DH	HSE
	<i>Under discussion with Local Government Regulation and within the GMAIC</i>	
<b>(C) Regulation, Inspection and Standards</b>		
<b>20</b>	Consider how a consistent, effective regulatory approach to Open Farms should be maintained, and how the	HSE / LGR

	regulators seek assurance that it is consistent and effective, taking the industry's views into account	
	<i>In discussion with Local Government Regulation</i>	
<b>21</b>	Agree a working definition of an Open Farm in consultation with leading agricultural industry representatives	HSE / HPA / Defra / the Industry
	<i>Existing and previous guidance targeted at Open Farms caused some difficulty for duty holders. The scope of revised guidance will be defined in terms of the prevention and control of the risk of infection from E.coli O157 and will not therefore rely on a definition of premises.</i>	
<b>22</b>	Bodies with regulatory or representative interests in Open Farms should collaborate to establish a register, sharing any data that is available to them separately	HSE / LGR / HPA / Defra / NFAN / NFU
	<i>Under discussion though there may be legal barriers to sharing information.</i>	
<b>23</b>	Authorities should help and encourage leading representatives of the Open Farm sector in fostering the development of a robust accreditation scheme for self-regulation of standards at Open Farms	HSE / LGR / HPA / the Industry
	<i>Encouragement and offers of assistance have been made to the industry representative bodies.</i>	
<b>24</b>	The content of <i>all</i> existing guidance touching on human health and safety at Open Farms needs to be reviewed, improved and clarified where necessary	HSE / LGR / Defra / HPA / the Industry
	<i>Existing guidance on human health and safety at Open Farms is principally to be found in AIS23. AIS23 has been revised and was submitted to the Advisory Committee on Dangerous Pathogens for comment and endorsement in February 2011.</i>	
<b>25</b>	HSE should take the lead in developing an Approved Code of Practice (ACoP) for the Open Farm industry	HSE / LGR / Defra / HPA / the Industry
	<i>Discussed at paras.17-20.</i>	
<b>26</b>	Clarify how prohibition and closure powers under both health and safety and public health laws should be used by EHOs and give clear advice to inspectors about the practical options relating to closure of farm premises	HPA /HSE / LGR
	<i>Revised guidance to the LAs has been issued since the Godstone Farm outbreak.</i>	
<b>27</b>	Review and revise staff training in conducting risk assessments, and consider the benefits of 'on the job' training with inspectors who hold agricultural expertise. Develop training in competencies for EHOs involved in inspection of farm premises, in liaison with the CIEH or other training organisations that have the capacity to offer such training	LGR / LAs / HSE / CIEH
	<i>The training needs of HSE and LA staff are addressed through Regulators Development Needs Analysis</i>	

	<i>(RDNA) tool and the associated Guidance for Regulators Information Point (GRIP).</i>	
<b>28</b>	Not for HSE - recommendation targeted at LACORS only	
<b>29</b>	HSE and LACORS should continue their collaboration to provide a strong foundation for future regulation of risks from <i>E. coli</i> O157 on Open Farms	HSE / LGR
	<i>Ongoing</i>	
<b>30</b>	Explore and clarify ways of working together in regulating Open Farms, and develop mutual understanding of roles, responsibilities and relationships	HPA / HSE / LGR / LAs / Defra
	<i>Ongoing dialogue within the GMAIC</i>	
<b>(D) Awareness, Education and Training</b>		
<b>31 -32</b>	Directed at the Department of Health, the HPA and the media, these recommendations are concerned with raising public awareness of the risk of infection with <i>E.coli</i> O157	DH HPA Media
<b>33</b>	Explore ways to help farm operators communicate information on infection risks to visitors using a multi-media approach	The Industry / HSE /HPA / FACE
	<i>Being taken forward by GMAIC's Education and Communications Sub-Group and will be reflected in the proposed industry code of practice.</i>	
<b>34</b>	Directed at the DH and HPA, this recommendation is concerned with raising awareness and understanding of GPs and healthcare practitioners about the significance of the symptoms associated with infection by <i>E.coli</i> O157	DH HPA
<b>(E) Further research</b>		
<b>35 - 43</b>	Directed at research councils, medical research funding agencies, clinical research networks, the DH, HPA, Defra etc. these recommendations suggest areas for further research into amongst other things: <ul style="list-style-type: none"> <li>• improved diagnostic techniques</li> <li>• the feasibility of vaccine control of the bacterium in animals;</li> <li>• and the environmental stability and survival of the bacterium.</li> </ul>	Research councils etc.