



Incident Preparedness Review Report

Food Standards Scotland

1 November 2017

Disclaimer

This Review Report (the "Review Report") has been prepared by Deloitte LLP ("Deloitte") for Food Standards Scotland in accordance with the variation to contract with them dated 25 January 2017 ("the Contract") and on the basis of the scope and limitations set out below.

The Review Report has been prepared solely for the purpose of carrying out a review of Food Standard Scotland's incident preparedness and providing recommendations for development. It should not be used for any other purpose or in any other context, and Deloitte accepts no responsibility for its use in either regard, including its use by any third party.

The Review Report is provided exclusively for Food Standards Scotland's use under the terms of the Contract. No party other than Food Standards Scotland is entitled to rely on the Review Report for any purpose whatsoever and Deloitte accepts no responsibility or liability or duty of care to any party other than Food Standards Scotland in respect of the Review Report or any of its contents. If Food Standards Scotland chooses to rely on the Review Report, it does so at its own risk and without recourse to Deloitte.

The information contained in the Review Report has been obtained from Food Standards Scotland and third party sources that are clearly referenced in the appropriate sections of the Review Report. Deloitte has neither sought to corroborate this information nor to review its overall reasonableness. Further, any results from the analysis contained in the Review Report are reliant on the information available at the time of writing the Review Report and should not be relied upon in subsequent periods.

Table of Contents

1	Introduction and Context	4	
1.1	Context		4
1.2	Purpose of this report		4
1.3	Methodology		4
2	Observation and recommendations	6	
2.1	Framework, plans and procedures		8
2.2	Governance		9
2.3	Response Organisation		9
2.4	Incident assessment and escalation		10
2.5	Information management and situational awareness		10
2.6	Stakeholders		11
2.7	Communication		11
2.7.1	Internal Communication		11
2.7.2	External communication		12
2.8	Capability		12
2.9	Culture and discipline		13
2.10	Resource and facilities		13
3	Conclusion	15	

1 Introduction and Context

1.1 Context

In January 2017, Food Standards Scotland (FSS) appointed Deloitte to undertake a review of its incident management preparedness. Since its establishment in 2015, FSS has managed a number of food related incidents, ranging widely in complexity. This review considered how effective the existing incident management plans and procedures are when supporting the response teams during a “non-routine” incident.

The intention of this review is to provide an objective appraisal of FSS’ current state of food incident response preparedness and provide recommendations for development now it has been operating as an independent organisation for the past two years. Following the review, Deloitte will support FSS to implement recommendations from the report and deliver a programme of training to embed the revised procedures, as necessary.

1.2 Purpose of this report

This report is intended to provide the FSS Senior Management Team (SMT), and subsequently the FSS Board, with an external perspective of FSS’ current state of food incident management preparedness, and an indication of the areas that may be developed to build capability and organisational resilience.

1.3 Methodology

The FSS Non-Routine Incident Management Plan was published in May 2015 and, while aligned to FSA’s Incident Management plan, it was adapted to reflect FSS’ organisational size. FSS’ food incident management procedures and its response to incidents were reviewed against Deloitte’s good practice crisis management principles (see below). These principles provide a useful framework, using industry good practice and British standards¹, to consider the effectiveness of FSS’ incident management procedures.

- Effective incident management is enabled by good governance and accountability, with active assurance driving performance.
- Incident management is a distinct component of the organisation’s wider resilience framework.
- Incident management is clearly defined in the incident structure and authority is delegated at the appropriate level with clear leadership.
- Effective and appropriate procedures and tools support the organisation’s incident response.
- Effective assessment and escalation is evident at all levels and is supported by clearly defined triggers, authorities and systems to deliver good decision making based upon clear information.
- A culture exists that values the importance of external goodwill and relationships.
- The organisation is able to communicate effectively to appropriate audiences in a timely manner.
- Incident-specific roles are attributed to trained, skilled and experienced professionals.
- The organisation supports a culture of incident management, building the capability of the organisation through training and exercising.

This review took place over three key stages:



- **Phase 1: Desktop review of FSS’ incident management documentation** including the NRIMP and Standard Operating Procedures (SOP) to understand the processes and structures in place and how these align with good practice.
- **Phase 2: One-to-one interviews with members of the Senior Management Team (SMT)** to discuss FSS’ recent incident response and its current state of incident preparedness. The interviews were designed to encourage open and honest discussion to identify potential strengths, weaknesses and opportunities for development to build FSS’ incident management capability.

¹ BS 11200:2014: Crisis management. Guidance and good practice



























- **Phase 3: Incident management workshop** with 17 operational team members to consider FSS' recent incident response and its current state of incident preparedness. Participants were separated into six groups to conduct a table-top review of FSS' response to the non-routine incident using focused discussion points. Each group was asked to consider the strengths, weaknesses and opportunities for development to build FSS' incident management capability.

2 Observation and recommendations

FSS’ current state of incident preparedness was assessed against the ten principles outlined below. Each area was given a score based on the review and our experience of working with FSS since its formation in 2015. A proposed desired state has also been included as a suggestion for where FSS may wish to strive for. The desired readiness level is ultimately a measure set by FSS but we have indicated a desired state here based on our understanding of FSS and its role, in alignment of other regulatory bodies of a similar nature.

 Deloitte’s assessment of FSS’ current state of incident preparedness
 Deloitte’s recommendation for FSS’ desired state of preparedness

Basic	There is little or no evidence of the principle in place, or that which is evident is not fit for purpose.
Competent	The principle can be seen and is understood, but application or wider knowledge/ embedding is lacking. All organisations should have this level of preparedness in place across all principles as a minimum.
Mature	The principle is firmly established and well understood by those who need to know. Assurance is conducted.
Strong	The principle is firmly established, well known and embedded across all areas of the business there is ongoing maintenance, assurance and development programmes with continual improvement. There is evidence of significant investment in the system.
Advanced	The principle is fully embedded and there is constant development and innovation to build and develop based upon a desire to ‘strive for excellence’ you can be and lead the field. Arguably only high-risk organisations, such as aviation and oil & gas, may strive for this level due to the level of resource and investment required.

	Principles	1: Basic	2: Competent	3: Mature	4: Strong	5: Advanced
1. Framework, plan and procedures	Incident management requires known procedures and tools that appropriately support an organisation’s response.					
Desired state:						
2. Governance	Effective incident management is enabled by good governance and clear accountability, with active assurance driving performance.					
Desired state:						
3. Response Organisation	Effective incident management requires a clearly-defined structure and authorities.					
Desired state:						

Principles		1: Basic		2: Competent		3: Mature		4: Strong		5: Advanced	
4. Assessment and escalation	Incident management requires effective assessment and escalation all levels supported by clearly defined triggers, authorities and systems to deliver a fast and effective response.										
Desired state:											
5. Information management & situational awareness	Good decision making based on clear and well managed information.										
Desired state:											
6. Stakeholders	Incident management requires a good understanding of the parties who may be impacted or influential depending on the situation.										
Desired state:											
7. Communication	Incident management requires an ability to communicate effectively, to appropriate audiences, in a timely manner.										
Desired state:											
8. Capability	Incident management requires trained, skilled and experienced professionals to fulfil specific responsibilities.										
Desired state:											
9. Culture and discipline	Effective incident response supports teams through learning, training and exercising to build competency and capability. It should include a highly disciplined team who understand and follow due processes appropriately deliver effective and timely response.										
Desired state:											
10. Resource and facilities	Incident management requires sufficient, appropriate and pre-defined resources and facilities to support the response.										
Desired state:											

2.1 Framework, plans and procedures

1: Basic	2: Competent	3: Mature	4: Strong	5: Advanced

Well defined plans and procedures support the incident response – they should be pragmatic and adaptable to guide the responding teams during times of immense pressure and information overload. Such plans should contain clear procedures for each stage of a response; assessment and escalation, activation, response and recovery.

Observations: Key incident management processes, such as activation and notification, risk assessment, battle rhythm and information management are outlined in standard operating procedures (SOPs) across the organisation.

The current NRIMP contains a considerable amount of useful and relevant information, including the incident management structures, incident classifications, and roles & responsibilities to guide FSS’ incident response.

The plan is appropriately aligned to other responding organisations, such as the Food Standards Agency in London.

Recommendation 1: Further develop FSS’ incident management processes and structures to align more with the structure and size of the new organisation. Once complete, develop a framework which clearly describes FSS’ incident management processes, principles, definitions and structures, and signposts the relevant SOPs in order to make the response workflow easier to follow.

Recommendation 2: Review and revise the NRIMP to include more detailed guidance on the:

- Incident categories and the response each level requires
- Risk assessment and risk management processes and roles and responsibilities of those involved
- Protocols for responding when FSS is not the lead agency
- Information management and exchange process
- Stakeholder management process
- Shift handover process

Tools, templates and SOPs should be included where possible to support the responders and make the process more user friendly. Each process should be clearly documented and well understood by the relevant staff.

Recommendation 3: Develop a clearly defined workflow to support FSS’ response to ‘routine’ incidents and how this links into the NRIMP. This will enable a clearer pathway from day to day ‘routine’ incident management and ‘non-routine’ incident management via clear assessment and escalation.

Recommendation 4: Consider creating a ‘Facilitator’ (or Chief of Staff) role to support the incident management process and ‘drive’ the team process. Experience shows that such roles are very useful in teams that respond on a regular basis and are required to manage complex information and situations. This role would become a permanent member of the operational team, and is responsible for ensuring the plan and procedures are being used throughout the response, and ensuring discipline and good practice is being adhered to throughout the response. For example, this could include: informing response team members of the times of upcoming meetings; managing the running of meetings (e.g. monitoring attendance, duration and making sure the agenda is followed), and; ensuring meetings actions are circulated following each meeting.

This role may be introduced as permanent member of the incident management response or it could just remain in place while the procedures are being embedded and then removed once the process is well understood and running smoothly.

2.2 Governance

1: Basic	2: Competent	3: Mature	4: Strong	5: Advanced

Effective crisis management is enabled by good governance and clear accountability, with active assurance driving performance. Ownership, management, budgeting and implementation must be mandated by the appropriate senior leader.

Observations: There is clear leadership within FSS of the response mechanisms but this is not fully documented. While members of FSS’ SMT form a core part of its incident management structure, and this is well known, it is not mandated within a policy. An incident management policy would establish firm governance around the ownership and management of the Incident Response processes and procedures, mandating training & awareness and capability building.

Recommendation 5: Develop an incident response policy, which clearly outlines accountabilities – leadership, ownership and management, reporting lines, budgets, training and exercising requirements and suitable assurance processes to allow ongoing assessment and continuous improvement. The policy should also align with any mandated requirements as a regulatory body or as laid down by Scottish Government.

2.3 Response Organisation

1: Basic	2: Competent	3: Mature	4: Strong	5: Advanced

Incident management teams should have a clear structure and well defined roles and responsibilities to enable an efficient and effective response.

Observations: A defined structure is in place with a clear description of each team’s responsibilities.

Existing incident management roles and responsibilities are documented in the NRIMP, such as Operational Incident Manager, Investigating Officer, Chief Scientific Advisor and Media Spokesperson. Each of these roles has a detailed role checklist available in the NRIMP.

Recommendation 6: Review the incident management teams’ membership, roles and responsibilities documented and update, to ensure the teams are appropriately resourced and all roles are represented on the teams in line with good practice. Each role should have clear responsibilities and appropriate training requirements to ensure that the responder is aware and understands expectations of the role, and is capable of fulfilling it.

Recommendation 7: Clearly define the broader, supporting roles of branch teams – assisting the response but not necessarily performing a core role - to ensure there is no confusion over their role and remit during an incident and their importance to the response. Consider including incident management-related objectives to relevant employee’s annual objectives.

2.4 Incident assessment and escalation

1: Basic	2: Competent	3: Mature	4: Strong	5: Advanced

A clearly defined and well-understood incident categorisation, assessment and alerting process significantly contributes towards a coordinated and efficient activation of the incident management.

Observations: An escalation process which outlines how the process works once an incident has been identified, is in place and documented in the NRIMP.

An incident classification matrix has been developed to support the assessment and triage of incidents, based on their impacts and potential severity.

A useful set of terms has been established to define the severity of incidents FSS may handle. These are widely known within FSS, however it would be beneficial to provide some better understanding of the response that may be required at each level.

Recommendation 8: Establish an 'Incident Assessment Team' as part of the escalation process, which consists of a small group of people who can rapidly form to triage a potential incident and determine whether the NRIMP is invoked. This will enable more rapid classification of the incident and appropriate response.

Recommendation 9: Expand on the existing incident classification matrix to clarify the key trigger points for when the NRIMP is invoked. Review the terminology used to classify incidents and clearly outline the required FSS response for each level of incident, ensuring reputational risk is incorporated into the matrix.

2.5 Information management and situational awareness

1: Basic	2: Competent	3: Mature	4: Strong	5: Advanced

Incident management requires effective analysis of data, development of useful refined information and briefing in a timely and appropriate fashion, to deliver good decision-making based on well-founded facts and analysis.

Observations: A new incident information management system, CLIO, has been introduced to support the information management process. This will help to enforce a disciplined information management process. CLIO can helpfully be tailored to FSS' needs and will contain the required tools and templates needed for effective information management and capturing incident decisions.

There are dedicated information management roles and evidence of good information capture during incidents. It would be beneficial if an overview of the information management process was developed to clearly outline the process and the roles involved within it.

Recommendation 10: Refine/Redevelop a clearly defined incident management process, defining roles and outputs, and include in the incident management framework.

Recommendation 11: Identify a dedicated pool of employees who can form the 'Secretariat Support Staff' as outlined in Annex A of the NRIMP. This team should include roles such as a Log Keeper and Information Manager. Develop specific role checklists for each member of the Secretariat Support Staff outlining their responsibilities and include these in the NRIMP.

2.6 Stakeholders

1: Basic	2: Competent	3: Mature	4: Strong	5: Advanced

Incident management requires a full understanding of the key parties who may be impacted, influential or interested depending on the situation. Good stakeholder relationships are highly beneficial during incidents and a clear understanding of advocates and adversaries is key to success.

Observations: FSS has an excellent core stakeholder network. Responders have good experience of working with this network through live responses, training and exercises. Further work is required to identify the complex stakeholder landscape that may be involved during an incident. A better understanding of the roles and responsibilities involved in the stakeholder engagement process is also required.

FSS is involved in all food incidents in Scotland and at a UK level, while LAs are likely to have less experience of leading and being involved with large scale UK/national incidents. At a national level, LAs are likely to be involved, but the experience of LAs can be variable. To support an effective response and protect public health, the multi-agency responders should take advantage of recent experience and ensure that is used in the best way to manage incidents.

Recommendation 12: Further develop the stakeholder identification and engagement process and document this in the Crisis Communication Plan. This should include an overview of FSS’ potential stakeholders during an incident and a clear description of the roles and responsibilities involved i.e. the Comms Manager is responsible for coordinating the process during an incident and maintaining the stakeholder matrix; the Briefing Manager is responsible for contacting industry stakeholders etc.

Recommendation 13: Work with Scottish Government to hold a review of FSS’ powers in relation to working with local authorities and other statutory bodies during an incident – particularly in cases where there may be a requirement for FSS to be more involved due to its level of experience of managing large-scale and national incidents.

Recommendation 14: Review the process for working with partner organisations where FSS is not the lead agency. For example, if responding to a health-led incident, consider how the FSS response should work to make the response as effective and efficient as possible.

2.7 Communication

1: Basic	2: Competent	3: Mature	4: Strong	5: Advanced

Incident management requires an ability to communicate effectively, to appropriate audiences, in a timely manner.

2.7.1 Internal Communication

Observations: Evidence shows that prompt internal communication has taken place during incidents, helping to keep staff up-to-date with the situation. This prevents employees from finding out about incident details from other sources and helps to make them feel valued. It is also a good opportunity to remind staff about relevant policies, such as social media and speaking to the media.

Recommendation 15: Develop an internal communications process for the Communications Team during an incident and include in the Crisis Communications Plan. Include an alert on the checklist for the Head of Communications to ensure internal communication takes place during the early phases of an incident and identify the role responsible for this task.

2.7.2 External communication

Observations: Communication guidance is included in the NRIMP. It would be useful to include further guidance to support the communications team during an incident. In the pressure of a response, all teams profit from having clearly laid out plans and processes, which clearly outline who will do what, when and where.

The communication function is appropriately represented on both the strategic and operational teams. In line with good practice, Communications is a key role of any incident or crisis management team.

The Communication team has rehearsed its incident response during previous exercises with partner organisations, such as Health Protection Scotland and local authorities. These events have provided the team with the opportunity to practise its response in a safe and secure environment.

The Communication team is experienced at responding to live incidents. Evidence shows it has held effective media briefing events during live incidents.

Recommendation 16: Document the incident communication response in an updated Crisis Communications Plan which outlines the role and responsibilities of the team during an incident. This plan should contain role checklists and other tools and templates, such as holding statements, Q&As and fact sheets, to support the team’s response.

Recommendation 17: Develop a guidance note on what information can and cannot be communicated to the public during an incident. While data protection is paramount during any response involving people, FSS should work with HPS to understand how this situation can be avoided in the future.

Recommendation 18: Utilise existing expertise available within the agency to carry out specific tasks, such as developing the ministerial briefings, rather than taking on too much activity on the SMT. This will free the team up to focus on the strategic response.

2.8 Capability

1: Basic	2: Competent	3: Mature	4: Strong	5: Advanced

Incident management requires trained, skilled and experienced professionals to fulfil specific responsibilities.

Observations: FSS has a highly capable and experienced workforce which has responded to many incidents in the past. Historically however, FSS was part of a larger UK organisation, where FSA staff in London usually took the lead for non-routine incidents meaning there is a requirement to upskill FSS staff in certain areas. The technical nature of the FSS requires highly skilled staff; succession planning and cross training should be adopted to maintain consistency of response in the event of staff leaving or retirement.

FSS is committed to building incident management capability, and considerable resource is dedicated to undertaking workshops and exercises to continually build experience. To enhance this process, it would be good to have a training programme that is designed around any identified capability gaps or training needs.

Recommendation 19: Conduct Training Needs Analysis (TNA) for each member of the Operational and Strategic teams. As part of this process, it would be useful to:

- Develop a competency framework which identifies the skills, knowledge, authority and experience required to assume the roles outlined in the incident management framework
- Consider who in the agency could assume each role (primary and deputy)
- Conduct TNA for each role within the Operational and Strategic team and, if further training is required, this should be noted and a training plan developed
- Any remaining gaps should be escalated to the SMT and a discussion to take place whether it is prepared to accept this risk

Recommendation 20: Train response staff in the refined incident response processes, responsibilities and activities to raise awareness. Ensure training is role-specific and held regularly. Ensure new joiners receive adequate training. To build live incident experience, consider bringing in less experienced staff to observe incidents and how they are managed.

Recommendation 21: Undertake succession planning to identify suitable candidates to support the competency and availability of incident management experts within the agency and build a sustainable workforce.

2.9 Culture and discipline

1: Basic	2: Competent	3: Mature	4: Strong	5: Advanced

Effective incident response has a culture that supports individuals and teams through learning, training and exercising, to build competency and capability. It promotes the ongoing identification and learning of lessons as a part of continual improvement. Key to any incident response is discipline. A highly disciplined team who understand and follow due processes appropriately deliver effective and timely response.

Observations: FSS responders are fully committed individuals who respond to incidents on a regular basis. Evidence shows that many staff worked late into the evenings and over consecutive weekends to support incident responses, and the team is admirably committed to the protection of public health. FSS has recognised the risk to staff resilience during protracted incidents and a process for managing these will be considered and developed in the revised NRIMP.

FSS staff throughout all levels of the organisation regularly take part in training and exercising events. To enhance this area of preparedness, discipline needs to be maintained and driven by the leaders at all levels to ensure the plans and processes are followed.

Recommendation 22: Establish a regular programme of training and exercising which includes an annual assessment, to ensure capability is being maintained at the desired levels and in line with the policy.

2.10 Resource and facilities

1: Basic	2: Competent	3: Mature	4: Strong	5: Advanced

An effective incident response has the appropriate facilities, resources and technology required to support the team fulfil its role.

Observations: The Operational Incident Delivery Team (OIDT) has a dedicated incidents room with equipment available. Good practice dictates teams have dedicated rooms to ensure confidentiality of potentially sensitive conversations, and a designated location to display information securely.

During previous, long-running incidents, a dedicated response team has been established working on a shift pattern to aide consistency. This is beneficial as it means staff are not conflicted between working on the response and business as usual. It also means the dedicated team builds in-depth knowledge of the incident and associated issues.

Concerns were raised during the review about Reference Laboratories’ capacity and how this may impact the response should they become overloaded during a long-lasting or severe/major incident.

Recommendation 23: Develop a contingency plan with the Corporate Leadership Team, to enable resource capacity in the event of a severe incident to establish adequate staffing throughout the response. Instruct

staff to maintain up-to-date diaries to enable Branch heads to know who is available to support when an incident arises.

Recommendation 24: Work with the relevant organisations to develop a contingency plan in the event reference laboratories become overloaded and are unable to meet demand.

3 Conclusion

FSS has managed a number of complex and challenging incidents since its establishment in 2015. This was an appropriate time to review FSS' incident preparedness and identify opportunities for future growth and development as the Agency moves forward.

FSS has dedicated and committed staff who have worked long and challenging hours when responding to incidents. They have detailed plans in place which have been developed over time, and this was a suitable point to review those plans and processes and ensure they remain aligned with current FSS structures as they stand. Based on our observations there are areas where FSS can further enhance its procedures; all plans continually move forward and the recommendations set out in this report seek to build upon a solid base and an extremely competent group of people.

A number of recommendations were identified and those considered to be the highest priority are as follows:

- a. **Develop an incident management policy** which outlines how FSS expects incident management to be effectively governed, delivered and assured.
- b. **Develop an incident management framework** which outlines FSS' approach to incident management, how it manages incidents, the teams involved and the principles which will guide its response.
- c. **Update the Non-Routine Incident Management Plan** to provide sufficient and effective guidance, tools and templates to support the teams using it. **Develop a clear and effective incident management process** and incorporate guidance in the NRIMP.
- d. **Build on the existing incident classification matrix to identify the key trigger points** and escalation points and clarify the organisational FSS response required at each level.
- e. **Clarify the roles and responsibilities** of the incident teams, including dedicated support staff. **Define and document the role and expectations of the branch teams** during an incident. Hold training sessions to raise awareness of these incident-related roles.
- f. Further **develop the Crisis Communications Plan** with the supporting information, tools, templates and standard operating procedures to guide the Communications Team during an incident.
- g. Further **develop a stakeholder engagement plan to support FSS to effectively and proactively manage its stakeholders** and include in the Crisis Communications plan.

This report marks the beginning of a wider programme of work: *Project Redstart*. Following the review, Deloitte will support FSS to implement recommendations from the report, including the development of a revised NRIMP. A comprehensive training programme will subsequently take place to raise awareness of the procedures and upskill those who will form part of FSS' incident management capability.



Disclaimer

This Review Report (the "Review Report") has been prepared by Deloitte LLP ("Deloitte") for Food Standards Scotland in accordance with the variation to contract with them dated 25 January 2017 ("the Contract") and on the basis of the scope and limitations set out below.

The Review Report has been prepared solely for the purpose of carrying out a review of Food Standard Scotland's incident preparedness and providing recommendations for development. It should not be used for any other purpose or in any other context, and Deloitte accepts no responsibility for its use in either regard, including its use by any third party.

The Review Report is provided exclusively for Food Standards Scotland's use under the terms of the Contract. No party other than Food Standards Scotland is entitled to rely on the Review Report for any purpose whatsoever and Deloitte accepts no responsibility or liability or duty of care to any party other than Food Standards Scotland in respect of the Review Report or any of its contents. If Food Standards Scotland chooses to rely on the Review Report, it does so at its own risk and without recourse to Deloitte.

The information contained in the Review Report has been obtained from Food Standards Scotland and third party sources that are clearly referenced in the appropriate sections of the Review Report. Deloitte has neither sought to corroborate this information nor to review its overall reasonableness. Further, any results from the analysis contained in the Review Report are reliant on the information available at the time of writing the Review Report and should not be relied upon in subsequent periods.

© 2017 Deloitte LLP. All rights reserved.

Deloitte LLP is a limited liability partnership registered in England and Wales with registered number OC303675 and its registered office at 2 New Street Square, London, EC4A 3BZ, United Kingdom.

Deloitte LLP is the United Kingdom affiliate of Deloitte NWE LLP, a member firm of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"). DTTL and each of its member firms are legally separate and independent entities. DTTL and Deloitte NWE LLP do not provide services to clients. Please see www.deloitte.com/about to learn more about our global network of member firms.