



Ministry  
of Defence

# JSP 816 Element 10: Incident Management and Continuous Improvement



# Element 10: Incident Management and Continuous Improvement

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## Amendment record

1. This chapter has been reviewed by the Directorate of Climate Change and Environment together with relevant subject matter experts and key environmental stakeholders. Any suggestions for amendments should be sent to:

[SPOCCE-EP@mod.gov.uk](mailto:SPOCCE-EP@mod.gov.uk)

Version No	Date	Text Affected	Authority
1.0	Feb 22	BETA version for consultation	Dir CCE
2.0	Dec 23	Final version	CCE
2.1	Dec 24	Annual revision and combined element and assurance framework	CCE

## Terms and definitions

2. General environmental protection terms and definitions are provided in the Master Glossary of Environmental Terms and Definitions.

### Must and should

3. Where this chapter says must, this means that the action is a compulsory requirement.

4. Where this chapter says should, this means that the action is not a compulsory requirement but is considered best practice to comply with the policy.

## Scope

5. This policy applies to all those employed by Defence (military or civilian) as well as those working on behalf of Defence (for example, contractors). It applies to all Defence activities carried out in any location (UK or overseas).

## Introduction

6. This element provides the guidance and best practice that should be followed and will assist users to comply with the expectations for Incident Management and Continual Improvement.

## Purpose and expectations

7. This element focuses on the frameworks that Defence Organisations have in place to report, record, and investigate incidents and plan on how to address investigation recommendations. The purpose of this element is to assist Defence Organisations to promote an environment in which there is a culture of learning, where all our people and those external to the organisation feel safe to report environmental incidents.

**E10.1** The Defence Organisation promotes a culture of open reporting of environmental incidents and near misses that occur.

**E10.2** The Defence Organisation has a system in place which is consistent with the Defence policy to record and report environmental incidents and near misses from initial submission to close-out, allowing for effective investigation and resolution.

**E10.3** The Defence Organisation has systems and resources in place to investigate environmental incidents and near misses.

**E10.4** The Defence Organisation has systems in place to implement the corrective actions and learning from incidents, and near misses to manage and drive continual improvement.

**E10.5** Emergency and Business Continuity Plans are in place, are tested regularly and consider environmental matters.

## Responding to environmental incidents

8. It is the responsibility of Defence Organisations to establish emergency preparedness and response plans. These should account for diverse types of situations, whether small scale chemical spillages, failure of abatement equipment or serious environmental situations endangering humans and environment and provide the necessary guidance.

9. When responding to an environmental incident, consideration should initially be given to the immediate environmental impact, and then to any secondary environmental impacts that can occur. Special attention must be given as to how the incident affects the operational capability, as well as the scale and size of the incident.

10. When an incident arises the Defence Organisation should:

- a. react in a timely manner, take action to control and correct it, and deal with the consequences.



- b. evaluate the need for corrective action(s) to eliminate the root cause of the incident. This should be done by investigating the incident to determine the root cause and consider whether similar incidents have / or could potentially occur.
- c. review existing assessments of environmental risks and incidents.
- d. determine and implement any actions needed and review their effectiveness.
- e. assess environmental risks which relate to new or changed hazards, prior to taking action.
- f. engage with regulators and all relevant stakeholders, including civilians where required.
- g. make changes to the Defence Organisation's EMS, if necessary.

## **Emergency and Business Continuity Plans**

11. Defence Organisations should have Emergency and Business Continuity Plans in place. Planning and response arrangements for environmental incidents need to be incorporated into these plans and these need to clearly consider any relevant events that may arise. The plan should be intricately linked to relevant environmental matters, and as the Defence Organisation's activities change, these must be proactively tested and adjusted accordingly.

12. The Emergency and Disaster Plan should set out the information, procedures and details required to ensure an effective, flexible, and timely response to an emergency, thus reducing to a minimum the distress and disruption caused by such an incident. For further guidance on Emergency and Disaster Planning, refer to JSP 375 Volume 1 Chapter 1 - Emergency and Disaster Planning.

13. A Business Continuity Plan (BCP) contains procedures and information developed, compiled, and maintained in readiness for use in an incident to enable an organisation to continue to deliver its critical outputs / activities at an acceptable pre-defined level. For further guidance on Business Continuity Management and implementing the BCM Model across Defence Organisations, refer to JSP 503 - Defence Manual of Resilience.

## **Incident reporting, recording and investigating**

14. An environmental incident is a specific event which causes loss or damage to property, plant or equipment, or harm to the environment. It can, but not always, result in a quantifiable loss and can occur in an individual location or in multiple locations at the same time or sequentially.

15. Defence Organisations should ensure that the necessary resources are in place to implement and maintain processes for reporting, investigating, and taking action to determine and manage environmental related incidents. Defence should also promote a culture of open reporting of environmental incidents by positively reinforcing this culture and proactively using any reports to develop methods to prevent recurrences.

16. Each establishment (Site) shall have in place processes and procedures to eliminate or reduce the potential for environmental incidents; however, should an incident occur, it should be reported immediately at site level in line with site procedures. All Contractors and Partners should be made aware of establishment emergency and incident reporting

procedures in line with the 4Cs (Co-ordination, Co-operation, Communication and Control) process. Incidents should be reported to the establishment focal point and host TLB.

17. Commanding Officers / Heads of Establishments must make sure that suitable establishment procedures are in place to enable effective reporting, investigation, and management of environmental incidents and near misses including those which have the potential to migrate off site. Where there is imminent or actual threat of environmental damage<sup>1</sup> occurring, the relevant statutory regulator should be immediately informed.

18. TLBs (or their central HS&EP staff) must notify Director LUCC&S of any enforcement action taken by statutory or Defence regulator as soon as possible after the action is taken.

19. All environmental incidents should be reported, and all follow up work should be recorded, regardless of severity. Examples of environmental incidents include, but are not limited to, accidental chemical spills, unscheduled releases of emissions to air, or discharge into local water courses and the release of contaminated waste from a storage area.

### **Incident reporting and recording**

20. The reporting of incidents should be used to inform the planning of actions to be taken, to prevent recurrence. It should inform Learning from Experience (LfE) to anticipate and prevent other potentially more serious outcomes, both locally and across Defence, thereby reducing risk to the environment. Reporting can also identify where good practice has resulted in better outcomes and may identify opportunities to share good practice more widely.

21. All environmental related incidents linked to Defence personnel, visitors, premises, estate, or equipment, must be reported, and recorded on the Defence Organisations' incident reporting / recording system and (where appropriate) investigated.

22. The Defence Organisation should retain documented information, photographs, if possible, as evidence of:

- a. the nature of the incidents and any subsequent actions taken.
- b. the results of any action and corrective action, including their effectiveness.
- c. The basis for communication to all relevant personnel and stakeholders.

23. Defence Organisation procedures must make sure that any environmental incidents that are likely to attract significant public or media interest are immediately notified to the Deputy Chief of Defence Staff Duty Officer, Defence Accident and Investigation Branch (DAIB) and Director LUCC&S. When deciding whether an incident should be reported, consideration should be given to:

- a. the extent and level of any injuries sustained.
- b. any impact on or loss of operational capability.

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<sup>1</sup> Environmental Damage (Prevention and Remediation) Regulations 2009 – see Volume 2 Leaflet 2 for further information.

- c. the significance of any environmental damage through or following the incident.
- d. the potential impact on Departmental reputation.
- e. any early assessment of whether lessons might be learned by Defence.

24. In the case of a major environmental incident, which being an incident with a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property, the Environment Agency incident hotline must be contacted. Examples include, but are not limited to:

- a. extensive damage to protected species or their habitat.
- b. persistent and/or extensive contamination of land which has a major impact on the use or quality of that land and is likely to need extensive decontamination measures.
- c. destruction or damage to physical habitats that will prevent a water body from reaching its ecological status or potential objective.
- d. major fish mortality.
- e. extensive and significant deterioration in air quality from a release of massive quantities of toxic materials.

25. TLBs are to ensure that their organisations have systems in place to report, collate and record environmental incidents from their activities. All records including the Unit / Establishment Register, Risk Assessments, Enforcement Notifications and so on, should be kept in accordance with [JSP 418](#) and health and safety in line with JSP 375.

### **Incident investigating**

26. Following an incident, an investigation should be undertaken by the Commanding Officer, or senior manager under whose Area of Responsibility the activity resulting in the incident falls. Investigations should be appropriate to the incident under investigation.

27. Decisions on the conduct of an investigation into a specific event will depend primarily on its consequences or potential consequences and the duties and requirements of other investigators. Consideration should also be given to the potential for learning lessons.

28. When deciding whether an incident crosses the threshold to require an investigation, the follow aspects should be considered:

- a. the significance of the environmental damage.
- b. any impact on or loss of operational capacity.
- c. the potential impact on Departmental reputation.
- d. any assessment of whether significant lessons might be learned.

29. Investigation and subsequent reporting should therefore be proportional to the severity of the incident and must be determined by an assessment of the risks involved, not just the specific outcome. Investigations may range from short interviews with the

individuals concerned, to formal inquiries. For more serious environmental events, it is likely that other authorities, for example the statutory regulators will have primacy in conducting any investigation.

30. In the event of any investigation by an independent authority, personnel involved who are required to be interviewed, provide statements or are under caution from the investigating authority, shall be excluded from any internal investigation or inquiry, until the independent investigating authority has given approval.

31. For an EMS to be effective on an ongoing basis, the Defence Organisation should also have a systematic approach for identifying nonconformity (i.e. the non-fulfilment of a requirement stated in relation to the EMS), taking actions to mitigate any adverse environmental impact, analysing the cause of the nonconformity, and taking corrective action. This approach helps with the implementation and maintenance of the EMS.

32. Where an environmental protection incident also involves a health and safety related injury, the investigations should be run in parallel, to enable one incident report to be raised.

33. Commanding Officers / Heads of Establishment are responsible for ensuring that the recommendations of an investigation are followed through and implemented on their site within a reasonable timeframe. Where the responsibility for actioning a recommendation, falls on another TLB, Commanding Officers / Head of Establishments, need to assure themselves the recommendation is being acted on. In the event that a recommendation is not being acted upon, within a reasonable timeframe, the Commanding Officer / Head of Establishment should escalate this through the management chain.

## **Implementation of actions and learning**

34. Improvement is integral to an effective EMS. An organisation that listens to and learns from experience and its people is one that is constantly improving and understands that mistakes, misjudgements, and the need to adapt are normal.

35. The Defence Organisation should take actions necessary to address identified opportunities for improvement. The accurate reporting and recording of environmental events are essential as the basis for effective learning and prevention of their re-incident.

36. A lesson is something learnt by study or experience. The benefits from Learning from Experience (LfE) are to anticipate and prevent other potentially more serious outcomes. Lessons learnt from incident investigations and formal inquiries should be shared with stakeholders, where relevant within the Defence Organisation and across the wider Defence safety and EP community.

37. Where lessons are identified and learnt, managers should make sure that appropriate corrective action is taken, risk assessments are updated, and the relevant information is shared across the organisation. They should also monitor the effectiveness of new or revised measures, and communicate to relevant stakeholders, so they are aware of changes to existing management systems or processes.

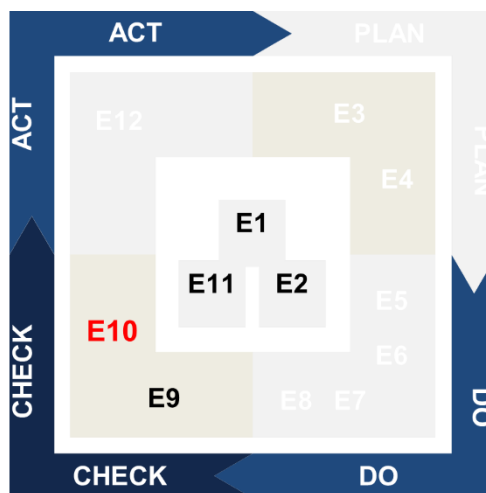
## **Element summary**

38. Defence Organisations' senior leadership should ensure that their organisation:

- a. promotes a culture of open reporting of mistakes, incidents and near misses that occur.
- b. has a system in place which is consistent with the Defence policy to record and report incidents and near misses from initial submission to close-out, allowing for effective investigation and resolution.
- c. has resources in place to investigate incidents and near misses.
- d. has systems in place to implement the corrective actions and learning from incidents and near misses to manage and drive continual improvement.
- e. has emergency and business continuity plans in place, tested regularly and considers environmental matters.

### Plan-Do-Check-Act (PDCA) Cycle

39. This diagram is designed to illustrate where this, and all the elements of JSP 816, fit into the PDCA cycle.



### Element assurance framework

40. The focus of this element requires that the organisation has frameworks in place to manage, notify, record, investigate and report environmental incidents and how these are addressed. The organisation should promote an environment in which there is a culture of a learning so that internal and external stakeholders feel empowered to report incidents. Lessons are identified and learned through a process of continual improvement. There is a proactive approach to identifying and mitigating potential incidents through regular and effective creation and testing of emergency plans.

41. The expectations and performance statements for this element are set out in the following pages.



## Expectations and performance statements

### Element 10: Incident Management and Continual Improvement

The expectations in this element are:

**E10.1** The Defence Organisation promotes a culture of open reporting of environmental incidents and near misses that occur.

**E10.2** The Defence Organisation has a system in place which is consistent with the Defence policy to record and report environmental incidents and near misses from initial submission to close-out, allowing for effective investigation and resolution.

**E10.3** The Defence Organisation has systems and resources in place to investigate environmental incidents and near misses.

**E10.4** The Defence Organisation has systems in place to implement the corrective actions and learning from environmental incidents, and near misses to manage and drive continual improvement.

**E10.5** Emergency and Business Continuity plans are in place, are tested regularly and consider Environmental matters.

Documents often associated with this element:

- 1LOD assurance reports
- Actions to strengthen Management Information based on this learning
- Analysis and lesson learned
- Business continuity plans
- Command / Corporate plan
- Continual Improvement (CI) Logs
- Defence Organisation business plans,
- Defence Organisation Operating Model
- Defence Organisation EMS & SMS
- Effective interface with statutory regulators
- Information collection process for Environmental management performance analysis and lessons learned
- Major Accident Control Regulations (MACR) plan
- Samples of emergency response exercise planning
- Whistle blower / anonymous escalation route / reporting

**Expectation 10.1** The Defence Organisation promotes a culture of open reporting of environmental incidents and near misses that occur.

Unsatisfactory	Limited	Moderate	Substantial
<ul style="list-style-type: none"> <li>• People are not reporting environmental incidents and near misses that occur.</li> </ul>	<ul style="list-style-type: none"> <li>• People are occasionally reporting environmental incidents, and near misses that occur.</li> <li>• There is limited evidence of reports being reviewed or acted upon.</li> </ul>	<ul style="list-style-type: none"> <li>• People are consistently reporting environmental incidents, and near misses that occur.</li> <li>• Reports are reviewed and acted upon by the organisation and its leadership in a timely manner.</li> <li>• Investigations into root cause analysis are conducted and improvements are identified but may not be implemented in a timely manner.</li> </ul>	<ul style="list-style-type: none"> <li>• The Defence Organisation demonstrably promotes a culture that allows for people to report environmental incidents, and near misses that occur. The organisation positively re-enforces this culture.</li> <li>• Leadership use reports to develop methods to prevent reoccurrence and drive continual improvement.</li> <li>• The focus of investigations is on the root cause and systematic improvements, with actions being taken in response, in a timely manner.</li> <li>• Those responsible for managing environmental incidents draw on human factors (things which influence people’s actions and decisions) investigations, skills, and expertise to fully understand how an incident happened, the lessons that can be learned and how to adapt in the future.</li> </ul>

**Expectation 10.2** The Defence Organisation has a system in place which is consistent with the Defence policy to record and report environmental incidents and near misses from initial submission to close-out, allowing for effective investigation and resolution.

Unsatisfactory	Limited	Moderate	Substantial
<ul style="list-style-type: none"> <li>• The Defence Organisation does not have a system to record and report environmental incidents and near misses for all stakeholders.</li> <li>• Within the Defence Organisation there is no, or little understanding, of the importance of leadership review of incidents, and near misses so that recurrence is prevented.</li> </ul>	<ul style="list-style-type: none"> <li>• The Defence Organisation has a system in place to record incidents and near misses, but this is either not consistent with Defence policy, does not include all stakeholders or is not effectively implemented.</li> <li>• The Defence Organisation conducts investigations into incidents, and near misses but they are inconsistent with Defence policy. Where incidents are reported, these are not closed out.</li> </ul>	<ul style="list-style-type: none"> <li>• The Defence Organisation has a system in place which is consistent with Defence policy to record incidents and near misses which is substantially implemented and includes most stakeholders.</li> <li>• The Defence Organisation conducts investigations into incidents, and near misses. Where incidents are reported, these are close out in line with Defence policy, the majority in a timely manner.</li> </ul>	<ul style="list-style-type: none"> <li>• The Defence Organisation has a system in place which is fully implemented and consistent with Defence policy to record incidents and near misses and includes all stakeholders.</li> <li>• The Defence Organisation uses root cause analysis or similar methods to avoid future event recurrence and drive continual improvement in a timely manner. All reported incidents are closed out in line with Defence policy in a timely manner.</li> </ul>

**Expectation 10.3** The Defence Organisation has systems and resources in place to investigate environmental incidents and near misses.

Unsatisfactory	Limited	Moderate	Substantial
<ul style="list-style-type: none"> <li>The Defence Organisation has no systems and resources in place to investigate environmental incidents and near misses.</li> </ul>	<ul style="list-style-type: none"> <li>The Defence Organisation has systems in place but does not have sufficient resources to fulfil its investigatory responsibilities which results in investigations not meeting Defence policy expectations.</li> <li>Investigation effort is focused on incidents rather than also including near misses.</li> </ul>	<ul style="list-style-type: none"> <li>The Defence Organisation has systems in place and sufficient resources to fulfil its investigatory responsibilities.</li> <li>The Defence Organisation investigates near misses in addition to incidents.</li> </ul>	<ul style="list-style-type: none"> <li>The Defence Organisation proactively assesses its investigatory resources and systems to ensure both current and future requirements can be met. The Defence Organisation consistently implements systems to investigate environmental incidents and near misses.</li> <li>The Defence Organisation performs investigations which produce recommendations that can be applied both within the Organisation and across the Department.</li> </ul>

**Expectation 10.4** The Defence Organisation has systems in place to implement the corrective actions and learning from environmental incidents and near misses to manage and drive continual improvement.

Unsatisfactory	Limited	Moderate	Substantial
<ul style="list-style-type: none"> <li>The Defence Organisation does not have a system in place to implement corrective actions and learning from environmental incidents and near misses.</li> </ul>	<ul style="list-style-type: none"> <li>The Defence Organisation has systems in place to implement corrective actions and learning from environmental incidents and near misses but does not consistently implement the system or the actions and learning.</li> </ul>	<ul style="list-style-type: none"> <li>The Defence Organisation has systems in place to implement corrective actions and learning from environmental incidents and near misses. These are substantially implemented and used to manage and drive continual improvement and are shared across the Defence Organisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Defence Organisation uses its learning to better predict future environmental incidents and take steps to mitigate ahead of realisation.</li> <li>The Defence Organisation shares corrective actions and learning both internally and across wider Defence.</li> <li>The Defence Organisation adopts good practice from outside the organisational boundary to drive continual improvement.</li> <li>The Defence Organisation actively seeks to implement findings from environmental investigations to support continual improvement and sharing across Defence.</li> </ul>



**Expectation 10.5** Emergency and Business Continuity plans are in place, are tested regularly and consider Environmental matters.

Unsatisfactory	Limited	Moderate	Substantial
<ul style="list-style-type: none"> <li>The Defence Organisation does not have an emergency and business continuity plans in place.</li> <li></li> </ul>	<ul style="list-style-type: none"> <li>An emergency and business continuity plans are in place, however it has not been tested regularly, not all responsibilities are assigned or there are gaps in competency.</li> <li>There is limited evidence that the plan considers Environmental matters.</li> </ul>	<ul style="list-style-type: none"> <li>An emergency and business continuity plans are in place and clearly considers possible events which could arise. It is tested regularly, and updates made as required.</li> <li>The plan is closely linked to relevant Environmental matters for Defence and the specific Organisation.</li> </ul>	<ul style="list-style-type: none"> <li>An emergency and business continuity plans are in place which clearly considers relevant events which could arise. It is tested proactively and adjusted as the Defence Organisations activities change.</li> <li>A specific, detailed review is undertaken to consider relevant Environmental matters and to include these within planning.</li> </ul>