



DE&S SAFETY AND ENVIRONMENTAL PROTECTION LEAFLET 03/2011

**EQUIPMENT SAFETY AND ENVIRONMENTAL PROTECTION (SEP) RISK
REFERRAL**

**Guidelines for the Referral of Equipment Safety and Environmental Protection Risks
to Senior Authorities**

Sponsor: DES EngSfty QSEP-Hd

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Introduction

1. The Secretary of State (SofS) policy statement reiterates the legal requirement that Top Level Budgets (TLBs)/Chief Executive Officers (CEOs), Commanding Officers (COs), Heads of Establishment (HoEs) and Duty Holders (DHs) and anybody else with responsibilities for managing Defence activities, comply with UK Legislation in managing Health, Safety, and Environmental Protection (HS&EP) risk¹, of which further details can be found in JSP815.
2. DE&S promote an open and just culture towards Safety and Environmental Protection (S&EP) and actively promote staff to be engaged in Safety and Environmental activities. Anyone who feels there is a credible risk to safety or the environment that is not being taken seriously should report issues to any level at any time with their concerns.
3. This guidance is written for application by DE&S, which is required to manage risks inherent in the Products, Systems, and Services (PSS) it supplies. Where very high levels of S&EP risks are identified which the DE&S project cannot mitigate, the process informs DHs, users, and Capability teams of the risk. The Military Commands (MCs), as the DH are responsible for controlling activities and has the authority to change operations, training regimes etc. to manage the risk. This process is mandated for Class A Risks, but is not restricted to such (i.e., the templates can be applied proportionately to any risks deemed appropriate for escalation.)
4. Where PSS is being procured for Foreign Nations which is outside of the current DE&S inventory and there is currently no DH or DH representative in place. The associated Senior

¹ Where the term risk is used, this should be interpreted as an impact from an Environmental perspective.

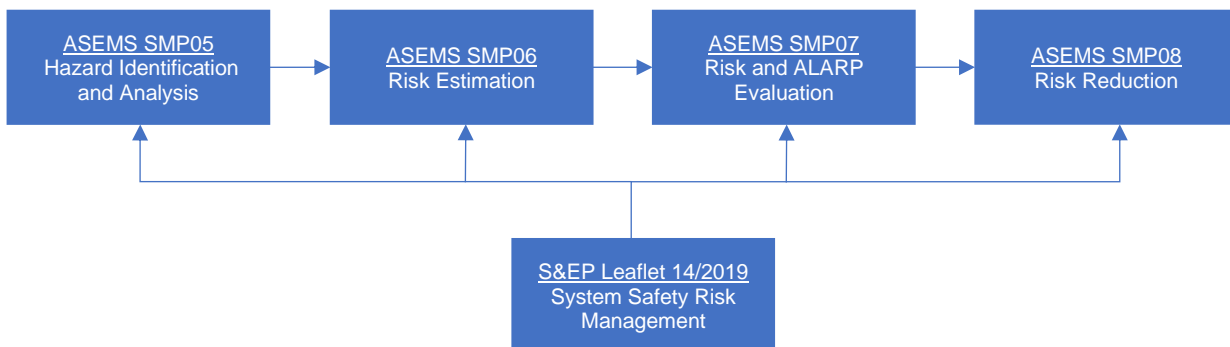
Safety Responsible (SSR) shall ensure that the appropriate Minister is kept informed regarding the residual risks of the associated PSS.

5. This leaflet is to provide a consistent approach to the referral/escalation of PSS S&EP risks to Senior Authorities/Commands or Ministers, if appropriate.
6. When developing military capability, the same diligence to risk should be implemented. Equipment on trials, whilst separate from military operations in terms of activity, must also be subject to suitable risk assessment and if needed, risk referral/escalation. Where such risks from trial activities occur, they should be referred/escalated using guidance from this leaflet.
7. This leaflet should be followed alongside other available guidance. Such documents include but are not limited to:
 - a. Defence Standard 00-056: Safety Management Requirements for Defence Systems (latest issue), noting that some of the requirement of this Defence Standard relate to environmental management requirements such as hazardous and restricted materials.
 - b. Defence Standard 00-051: Environmental Management Requirements for Defence Systems (latest issue).
 - c. JSP 892 Risk Management.
 - d. DSA Regulatory Articles (both High Level and Domain Specific).

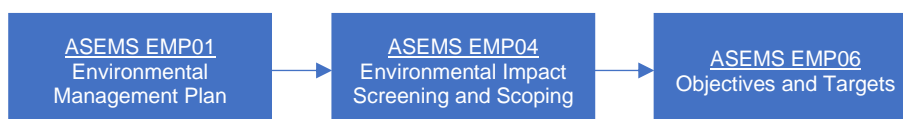
Assumptions

8. Prior to any S&EP risk referral/escalation management it is assumed that the following management of risk activities have been conducted and completed:

Safety Risk Management



Environmental Impact Management



9. Information will be reported in an open, constructive, and transparent way, where practicable. If security provisions apply these must be identified and dealt with according to security protocols.

Background

10. Military operations may exceptionally demand that personnel or environmental receptors are exposed to levels of risk that, in civilian operations, would be considered abnormal. Decisions to tolerate such risks in order to preserve or enable an essential military capability must always be made at appropriate levels of seniority. The risk, however, is ultimately owned by the DH. The process must record decisions at each stage of the referral/escalation process. These decisions may involve the release of funds or changes to operating procedures which mitigate the risk, referral/escalation of the risk to a higher-level authority or a decision to tolerate the risk due to exceptional circumstances. Authority to implement these measures will depend on several factors, one of which is the level of delegated S&EP authority held. In the case of the most serious, Ministers may be asked to note those decisions taken at the highest level, because they are ultimately accountable for them. Escalation to Ministers must be in consultation with key stakeholders (e.g., DH and any other impacted teams).
11. The risk referral/escalation methodology has been designed to be compatible with similar processes used by both MCs and operating organisations. These operationally focused processes have primacy over this supporting DE&S process; however, it promotes the communication of risk up the DE&S and MCs DH² chains using consistent submissions by providing a standard format. It should be noted that the DH owns the Risk to Life (RtL).
12. Where DE&S personnel are considered to be directly at risk, staff are to ensure the risk is communicated to an appropriate level (i.e., RtL to be communicated to the DH). Where a risk of an accident or incident could result in operational/reputational harm to MoD or the wider UK, the risk should be referred to an appropriate level.
13. System of Systems risks should be considered as early in the lifecycle as possible however, it is recognised that some risks cannot truly be judged until a sub-assembly/equipment or system is installed in the final Platform. Equipment/System Delivery Teams (DTs) should make every effort to estimate the risk and ensure the overall Platform DT are made aware of the risks as early as possible.

Process

14. Risks must be endorsed by a suitably delegated individual as per a structure agreed by the Project Safety and Environmental Committee (PSEC) at each level. All risks should have risk mitigations, which are to be reviewed and updated on a regular basis in accordance with the DT's risk mitigation plan. It is important that the DT's Risk Management Tool is maintained; ensuring that action dates and review dates have not expired. Target Mitigation Dates should be the date which precedes the expected risk impact.
15. The management of the impact of the risk on a DT's outputs/objectives are rarely transferred, this remains with the originator, who continues to undertake appropriate mitigation action. It is only the management of the risk that can be referred.
16. Formal arrangements shall be established and documented in Safety and Environmental Management Plans for:
 - a. The handover of hazard/risk related information between Equipment, System and Platform Authorities and from Equipment/System/Platform Authorities to Duty Holders and other Accountable persons. For risk acceptance purposes,

² In MCs, where a DH is not appointed, the term refers to Accountable Person.

Platform primacy shall apply, and risks managed by Equipment/System Authorities shall be communicated via the relevant PSECs.

- b. Risk referral/escalation, where an Authority, DH, or other Accountable Person decrees that it is beyond their ability to manage or accept a risk within the scope of their delegated or defined accountability/responsibility.
17. Referred/escalated risks shall be assessed at progressively higher levels of Authority and relevant stakeholders must be involved. As a minimum, the stakeholders of the PSS risks will be the Capability Sponsor (Senior Responsible Owner (SRO) of the capability), DE&S SSR and most importantly, the DHs or their appropriate representative. The risk evaluation will provide options for further reducing risk and the level and tolerability of residual risk following mitigation.
 18. For PSS related risks, the referral process starts at the PSEC. The risk may be identified by any stakeholder³. The first level of screening within DE&S occurs when the PSEC refers a risk through the SSR to the DH to seek new funding to mitigate the risk.
 19. The process to seek new funding will require key stakeholder involvement, in particular the Customer. The Planning Round process requires endorsement at every level up to Defence Board and decisions at each stage of the approval process are referred to the risk owner (MCs/User). If a solution is not funded the issue will be referred to the DH.
 20. The pace of decision making will be driven by operational urgency and the risks associated with continued operations, which must be balanced against the consequences of withdrawing the capability. This means for PSS employed in active operations, Chief of Defence Staff or the authorised Deployed Commander⁴, will have primacy throughout with DE&S and Capability Sponsor in support.

Application

21. The following section provides more detail on the risk referral/escalation process.
22. The decision to tolerate the residual risk must be taken by a DH at the appropriate level of competence and delegation, normally in the MCs or Operating Authority (OA) for In-Service PSS.
23. Within DE&S, the preferred method for assessing levels of safety risk is the risk matrix, which combines values of severity and likelihood to categorise risk in the range A to D, where Class A⁵ risks are the highest.
24. Due to the differences in risk matrices between the Domains, it is required to report the raw data of likelihood and severity as well as the original Risk Classification. This will allow a 'like for like' comparison of risks across the Domains at the Executive Committee or other suitable risk discussion forum.
25. Risk class alone should not be the sole parameter that determines whether risks are to be subject to risk referral/escalation action. The management of risk activities can equally be

³ For Land Systems the project team would normally be notified of a risk identified in current operations through the Operational Dispensation Process. For Air Systems the Operational Emergency Clearances systems are initiated where equipment will be operated outside of its declared safety target and Maritime use the Operational Deficiency system which considers risks when operating outside the design envelope.

⁴ See JSP 815.

⁵ A risk which DE&S assesses as 'Intolerable' unless there are exceptional reasons for the activity to take place (POSMS SMP06).

applied to risks of a lower level which would normally be considered tolerable (for instance, safety risks that are close to the Class A/B classification boundary). In such cases, the decision to refer/escalate should be clearly justified. This promotes a conservative approach to S&EP risk management but does not prevent imaginative or rapid action. It enables risk management processes and associated risk acceptance guidelines used by the MCs to be applied to the final decision.

26. At the early stages of a project, DE&S hazard analysis and risk assessment activities and environmental impact screening and scoping are likely to identify a number of hazards and environmental aspects which will be assessed as presenting a high level of risk until mitigation measures can be shown to be implemented. When the DT sees a reasonable prospect of reducing those risks, it will not need to refer them up the DH chain. As the project matures and mitigation measures are introduced, the level of risk will reduce. The majority of risks will be low, allowing acceptance at DT level. Where risk levels are higher than reasonably practicable⁶ and risk reduction measures cannot be identified; the risk must be escalated to the SSR for decision. Referrals/escalations should include a clear description of the hazard, the level of assessed risk and the options available for reducing that risk, including costings. Funding requirements will need to interface with the planning round through the SRO.
27. Assessing the tolerability of a risk which DE&S considers to be sufficiently high to justify referral must consider many factors, most of which are related to operational issues. For that reason, DE&S must refer the decision to the user MCs for its operational perspective. The level of risk presented by the use of the PSS is assessed by the user organisation, taking account of the DE&S risk analysis and its own knowledge and influence over the other Defence Lines of Development.
28. When all reasonably practicable measures have been introduced, the resultant level of residual risk is determined. The decision to tolerate the residual risk must be taken by a DH with the appropriate level of competence and delegation, normally in the MCs or OA for In-Service PSS.
29. At each stage of the referral/escalation process, the MCs or OA, supported by DE&S, must decide whether it can justify the continued use of the PSS in the circumstances giving rise to the very high risk. If not, and the level of risk cannot be reduced, immediate withdrawal of the defined capability must be considered. Where decisions are taken to tolerate a risk, these must be formally recorded. Subsequent to acceptance, hazards which pose a high level of risk should be kept under close review until circumstances change and the level of risk is reduced.
30. When a risk is subject to risk referral/escalation, it is to be reported using the information gathered through the Operating Centre (OC) process to the DE&S Safety, Health and Environmental Committee.
31. OCs are to ensure a risk reporting process is in place to escalate risk through the Duty Holding Construct that is recorded through all stages of the escalation to point of resolution.
32. The risk referral/escalation process is graphically presented at Annex A – Risk Referral/Escalation Process.

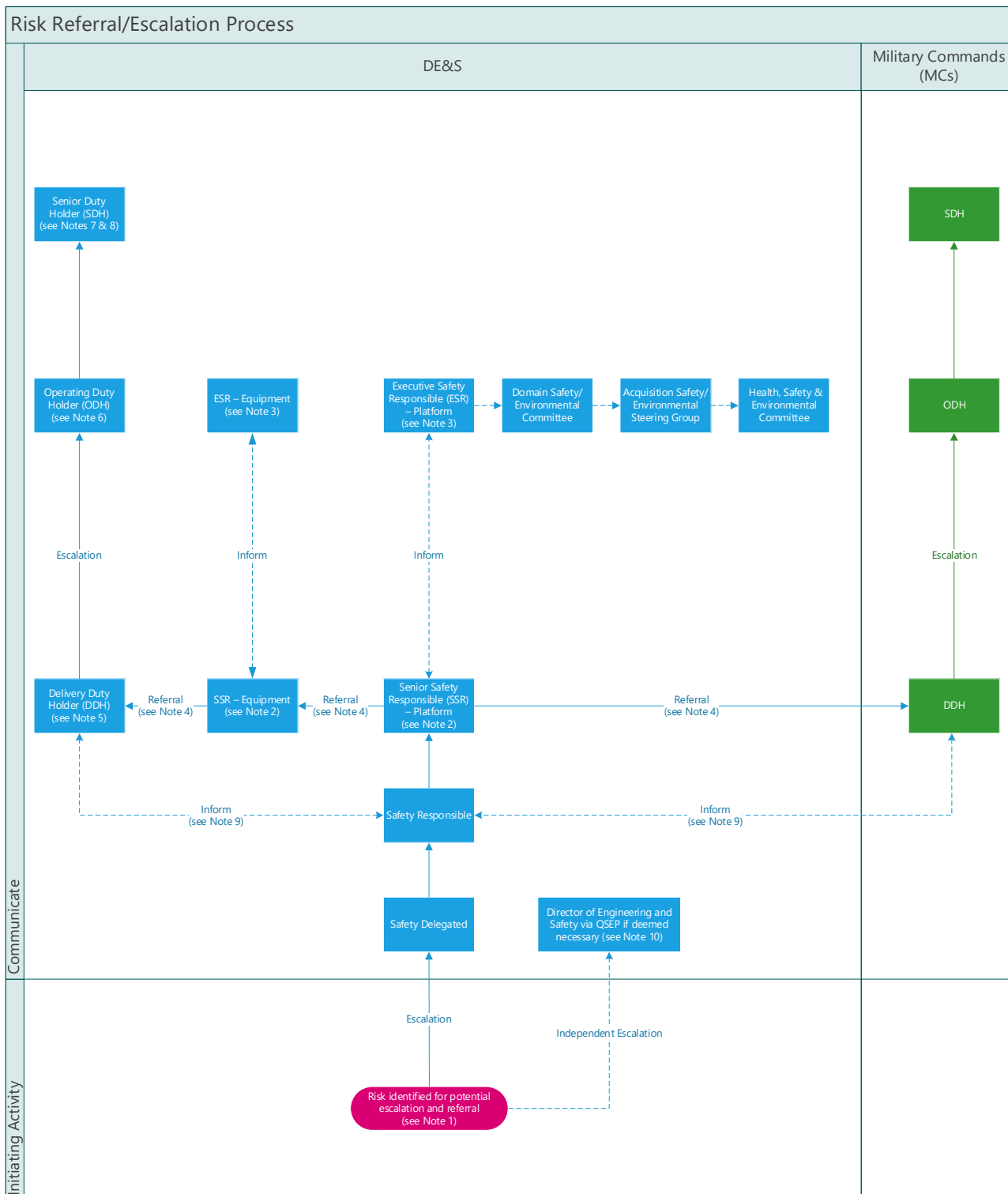
⁶ Reasonably practicable here must take account of the counter-effect of mitigation on capability.

33. The editable MS Word version of risk referral/escalation templates can be found in [GMP00](#).

Risk Reporting Detail

34. Domains are to ensure a standard format of reporting is used across OCs and DTs that includes sufficient detail of the risk being referred/escalated to be understood throughout the process.

Annex A – Risk Referral/Escalation Process



Note 1: DT to complete Part 1 Stage 1.

Note 2: SSR to complete appropriate Part 1 where applicable and inform appropriate ESR.

Note 3: ESR to complete appropriate Part 2 where applicable and return to SSR.

Note 4: SSR – Platform: refer to MCs DDH and where applicable to SSR – Equipment.
 SSR – Equipment: refer to DDH.

Note 5: DDH to complete appropriate Part 3 and escalate to ODH where applicable.⁷

Prior to in-service use and the appointment of a DDH, the SRO is accountable for risk to life. The SRO shall therefore be engaged where the DDH is not established.

Note 6: ODH to complete appropriate Part 4 and escalate to SDH where applicable.⁷

Note 7: SDH to complete appropriate Part 5 and escalate to Minister where applicable.⁷

⁷ DE&S should be informed of this internal escalation.

Note 8: Minister to complete Part 6 where applicable.

Note 9: If any credible risk is identified that could impact establishment infrastructure, then both the Head of Establishment and Duty Holder should be informed.

Note 10: The appropriate Safety and Environmental reporting mechanism available on the Health and Safety Portal can be found [here](#).

DE&S Risk Referral/Escalation Template

The DE&S Risk Referral/Escalation Template⁸ is to be used whenever DE&S safety and environmental protection risk assessment activities identify very high-level risks⁹ which will not or are unlikely to be sufficiently mitigated at the stage they are presented to users, third parties, or the environment.

Should this situation arise, referral/escalation to a higher authority must be sought. This applies irrespective of the lifecycle stage and is not limited to operational use. For such high-level risks, the referral/escalation seeks to achieve:

- The release of appropriate funds to implement an engineered solution,
- the introduction of changes to the way the equipment/platform is deployed or operated,
- or decision to tolerate the risk at a level with the appropriate authority.

At each stage of the risk referral/escalation process, authorities may recommend immediate withdrawal of the equipment/platform from the activities which give rise to the high risk, authorise interim continued use through the user's authorisation processes, or decide to tolerate the risk within their delegated authority.

Part 1 (to be completed by Delivery Team (DT))		
Stage 1: Risk Definition		
Delivery Team:		
Equipment/Platform:		
Project Lifecycle Stage:		
Hazard Description:		
Risk Assessment	Severity:	
	Probability:	
	Risk Level:	
Description of Consequences:		

⁸ Editable version available [here](#).

⁹ Where the term risk is used, this should be interpreted as an impact from an Environmental perspective.

Description of Implemented Risk Reduction Measures:

Description of Potential Risk Reduction Measures **NOT** Implemented (i.e., state levels of mitigation which would be achieved and reasons for non-implementation including results of cost benefit analysis):

Operational Consequences (i.e., consequences of withdrawing the equipment/platform from service or restricting operations to prevent risk occurrence):

Stage 2: Senior Safety Responsible (SSR) - Platform Referral/Escalation

This submission constitutes a formal referral/escalation of the risk described above. The reasons for referral/escalation and recommended action have to be fully defined and agreed with Delivery Team Leader for referral/escalation.

SSR Statement:

Submission prepared with additional input from: Annotate with names and titles as appropriate.	Operating Centre Safety/Environmental Office:	
	Independent Safety/Environmental Assessor:	
	Military Commands (MCs):	
	Head of Capability:	

Name: _____ Signature: _____

Position: _____ Date: _____

Stage 3: SSR - Equipment Referral/Escalation (where applicable)

This submission constitutes a formal referral/escalation of the risk described above. The reasons for referral/escalation and recommended action have to be fully defined and agreed with Delivery Team Leader for referral/escalation.

SSR Statement:

Submission prepared with additional input from: Annotate with names and titles as appropriate.	Operating Centre Safety/Environmental Office:	
	Independent Safety/Environmental Assessor:	
	Military Commands:	
	Head of Capability:	
Name:		Signature:
Position:		Date:

Part 2 (to be completed by Operating Centre Director/Executive Safety Responsible (ESR))	
Stage 1: Operating Centre Director/ESR – Platform Response	
Based on the evidence provided, the following action is agreed:	
It is recommended that the equipment/platform be withdrawn from the service giving rise to the high risk.	
Funds are sourced to allow the implementation of appropriate risk reduction measures. Issue referred to Centre (Cap/RP).	
The risk is to be referred for further scrutiny (complete Stage 2 below).	
Name:	Signature:
Position:	Date:
Stage 2: Operating Centre Director/ESR – Platform Declaration	
<p>Formal risk assessment has established that the level of equipment/platform safety and environmental risk presented by the hazard described at Part 1 would not be tolerable in normal circumstances. The evidence demonstrates¹⁰ the risk reduction options which the DE&S equipment/platform project has investigated, and which have been shown to be impracticable due to:</p> <ul style="list-style-type: none"> a. insufficient funds/resources to implement and/or b. the operationally unacceptable delay in implementation. <p>DE&S is therefore unable to declare that the risks posed by this equipment/platform have been reduced to a level which is As Low As Reasonably Practicable (ALARP) (or environmental equivalent) and tolerable when operated in accordance with its design intent.</p> <p>This statement constitutes a formal declaration of the level of risk posed by the subject equipment/platform. As the operating authority for the equipment/platform, you may:</p> <ol style="list-style-type: none"> 1. Agree the intolerability of the risk and not operate the equipment/platform for the activity giving rise to the high risk; 2. Accept changes to the operation of the equipment/platform which reduce the level of risk; 3. Agree that the operational imperative justifies the level of risk. You may then wish to refer the risk to a higher level for endorsement. <p>Capability Sponsor (as Senior Responsible Owner for the capability) and DE&S (as the equipment/platform sponsor) must be informed of your decision in writing.</p>	
Name:	Signature:

¹⁰ The solution is demonstrated to pass the grossly disproportionate assessment.

Position:	Date:
Stage 3: Operating Centre Director/ESR – Equipment Response (where applicable)	
Based on the evidence provided, the following action is agreed:	
It is recommended that the equipment/platform be withdrawn from the service giving rise to the high risk.	
Funds are sourced to allow the implementation of appropriate risk reduction measures. Issue referred to Centre (Cap/RP).	
The risk is to be referred for further scrutiny (complete Stage 4 below).	
Name:	Signature:
Position:	Date:
Stage 4: Operating Centre Director/ESR – Equipment Declaration (where applicable)	
<p>Formal risk assessment has established that the level of equipment/platform safety and environmental risk presented by the hazard described at Part 1 would not be tolerable in normal circumstances. The evidence demonstrates¹⁰ the risk reduction options which the DE&S equipment/platform project has investigated, and which have been shown to be impracticable due to:</p> <ul style="list-style-type: none"> a. insufficient funds/resources to implement and/or b. the operationally unacceptable delay in implementation. <p>DE&S is therefore unable to declare that the risks posed by this equipment/platform have been reduced to a level which is ALARP (or environmental equivalent) and tolerable when operated in accordance with its design intent.</p> <p>This statement constitutes a formal declaration of the level of risk posed by the subject equipment/platform. As the operating authority for the equipment/platform, you may:</p> <ul style="list-style-type: none"> 4. Agree the intolerability of the risk and not operate the equipment/platform for the activity giving rise to the high risk; 5. Accept changes to the operation of the equipment/platform which reduce the level of risk; 6. Agree that the operational imperative justifies the level of risk. You may then wish to refer the risk to a higher level for endorsement. <p>Capability Sponsor (as Senior Responsible Owner for the capability) and DE&S (as the equipment/platform sponsor) must be informed of your decision in writing.</p>	

Name:	Signature:
Position:	Date:

Part 3 (to be completed by DE&S Delivery Duty Holder (DDH)/User)	
Stage 1: DE&S DDH/User Response (where applicable)	
Based on the evidence provided, the following action is agreed:	
It is recommended that the equipment/platform be withdrawn from the service giving rise to the high risk.	
Funds are sourced to allow the implementation of appropriate risk reduction measures. Issue referred to Centre (Cap/RP).	
The risk is to be referred for further scrutiny (complete Stage 2 below).	
Name:	Signature:
Position:	Date:
Stage 2: DE&S DDH/User Referral/Escalation (where applicable)	
This submission constitutes a formal referral/escalation of the risk described in Part 1 Stage 1. The reasons for referral/escalation are fully defined below:	
Name:	Signature:
Position:	Date:

Part 4 (to be completed by DE&S Operating Duty Holder (ODH)/User)	
Stage 1: DE&S ODH/User Response (where applicable)	
Based on the evidence provided, the following action is agreed:	
The risk is not tolerable, and the equipment/platform must not be operated for the service giving rise to the high risk until additional mitigation is identified and introduced	
The following changes which will reduce the level of risk posed by the equipment/platform are to be introduced. The submission is referred back to the DT/PSEC for an assessment of consequent risk.	
There is an operational justification for tolerating the assessed level of risk and the submission is referred for Senior Delivery Holder level scrutiny (complete Stage 2 below).	
Tolerate the risk because it is within DE&S guidelines and my delegated authority.	
Name:	Signature:
Position:	Date:
Stage 2: DE&S ODH/User Referral/Escalation (where applicable)	
This submission constitutes a formal referral/escalation of the risk described in Part 1 Stage 1 above. The reasons for referral/escalation are defined below:	
Name:	Signature:
Position:	Date:

Part 5 (to be completed by DE&S Senior Delivery Holder (SDH))	
Stage 1: DE&S SDH Response (where applicable)	
Based on the evidence provided, the following action is agreed:	
The equipment/platform must not be operated for the service giving rise to the high risk until additional mitigation is identified and introduced.	
The following changes will be introduced to reduce the level of risk posed by the equipment/platform. This decision should be referred/escalated back to the DT/PSEC for assessment of consequent risk.	
The operational imperative justifies the level of risk and Ministers will be informed (complete Stage 2 below).	
Name:	Signature:
Position:	Date:
Stage 2: DE&S SDH Referral/Escalation (where applicable)	
I notify you of my decision described in Part 1 Stage 1 above. The reasons for notification are defined below:	
Name:	Signature:
Position:	Date:

Part 6: Ministerial Response

Based on the evidence provided, the Minister:

Notes that the operational imperative justifies that the level of risk is tolerated, but action must continue to identify appropriate risk reduction measures.

Does not agree that the operational imperative justifies that the level of risk is tolerable, and action must continue to identify appropriate risk reduction measures.

Name:

Signature:

Position:

Date: