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0 SHOWING CONFORMANCE

0.1 Options

0.1.1 There are four options to demonstrate conformance when applying this system procedure:

Follow the defined system procedure using the recommended guidance and tools, including allowed variations and options.

Use an equivalent process and tool set generated elsewhere and document evidence of procedural equivalence.

Use an equivalent bespoke process and tool set for the project and document evidence of procedural equivalence.

Where the procedure is considered to be not relevant, document the basis for this decision.

1 INTRODUCTION

1.1.1 This procedure focuses on the assessment and reporting of the environmental impacts associated with the project. This procedure is likely to be commenced soon after Procedure EMP04 – Environmental Impact Assessment Plan, for those stages where sufficient data exists or it is possible to make reasonable estimates.

2 PROCEDURE OBJECTIVES

2.1.1 Carry out an EIA(s) in accordance with the EIA Plan developed in Procedure EMP04 – Environmental Impact Assessment Plan.

2.1.2 To identify appropriate mitigation measures for adverse environmental impacts.

2.1.3 To identify ways in which positive environmental impacts could be optimised.

2.1.4 To report on the above.

3 RESPONSIBILITIES

3.1 Accountability

3.1.1 The IPTL is accountable for the completion of this procedure.

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3.2 Procedure Management

- 3.2.1 IPTLs may delegate the management of this procedure to a member (IPT Environmental Focal Point) or members of the IPT.

3.3 Procedure Completion

- 3.3.1 It is unlikely that the IPT will carry out and report the assessments unless the situation is straightforward. IPTs will generally task advisors or consultants to conduct and report EIAs. It may be possible to involve potential system suppliers/contractors as they may have existing studies available, or even to require system suppliers/developers to provide EIAs and reports to the IPT as part of any contractual arrangements.

3.4 Choosing a Suitable Advisor/Contractor/Supplier

- 3.4.1 When choosing a suitable advisor/contractor/supplier, IPTs should consider the following competencies:
- a. Previous experience of EIA and EIA processes;
 - b. Knowledge of the Application Domain eg naval, air or land systems;
 - c. Understanding of the environmental risks and media potentially affected eg previous experience of working with military systems;
 - d. Working knowledge of ISO 14001 and ISO 14044.
- 3.4.2 An advisor/contractor/supplier should be chosen on the strength of their combined competencies across these areas.

4 WHEN

4.1 Initial Application

- 4.1.1 For complex or strategically important capabilities initial EIAs may be carried out as early as the Concept Stage prior to Initial Gate approval. However, in most cases EIAs are likely to commence in the Assessment Stage and some may not be necessary until the Demonstration or even the Manufacturing Stage.
- 4.1.2 Where an incremental or structured EIA plan has been developed, it is possible the EIAs will need to be initiated at the end of each stage of CADMID.

4.2 Review

- 4.2.1 The outputs of this procedure will require periodic review and possible revision throughout the lifetime of the project. The appropriate timings for such reviews will be determined through following Procedure EMP08 - Continuous Review. Where the EIA Plan proposes interlinked or incremental EIAs then Procedure EMP08 - Continuous Review must be used to plan the revisions of the EIA Report(s) and EIS.

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5 REQUIRED INPUTS

- a. The 'Common Documents' (ie User Requirement Document (URD) and JSP 418 (UK legislation and MOD policy)).

Outputs from Procedures:

- EMP01 – Stakeholders and Standards Identification
- EMP02 – Screening and Scoping
- EMP03 – Impact Priority Evaluation
- EMP04 – Environmental Impact Assessment Plan

6 REQUIRED OUTPUTS

- a. Environmental Impact Assessment Report (EIA Report).

Environmental Impact Statement (EIS).

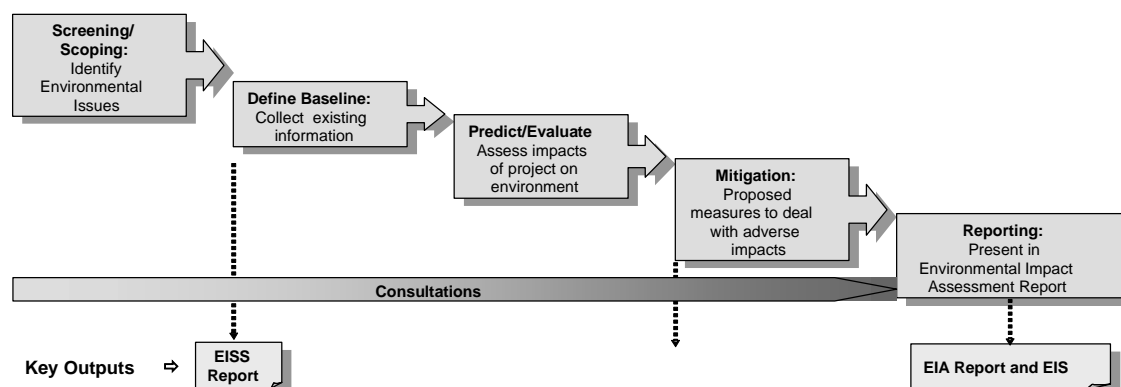
OR

Equivalent actions and documentation that ASEG is satisfied achieves the same objectives.

7 DESCRIPTION

- 7.1.1 Environmental Impact Assessment is a recognised technique for identifying, assessing and determining mitigating measures of environmental impacts. Figure 5.1 below shows the key stages of this process in diagrammatic form and shows how EIA reporting links into the process.

Figure 5.1: The EIA Process



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7.2 Step 1: Document low priority environmental impacts

7.2.1 On completion of EMP03 – Impact Priority Evaluation, impacts will have been prioritised into 3 categories:

- a. Low Priority;
- b. Medium Priority;
- c. High Priority.

7.2.2 All low priority environmental impacts should be listed in the EIA Report, although no further analysis of them is necessary at this point. However, this does not mean that the priority evaluation of these impacts would not be reviewed and reassessed in later stages. The need to review these will be highlighted by following Procedure EMP08 – Continuous Review.

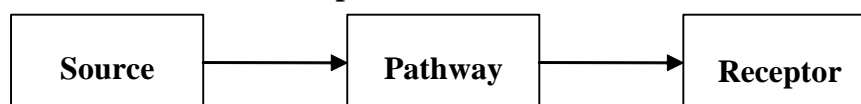
7.3 Step 2: Consider medium priority and high priority environmental impacts

7.3.1 Where Procedure EMP03 – Impact Priority Evaluation has shown that there is a potential for adverse environmental impacts of medium priority or high priority, then appropriate actions to eliminate, reduce and/or monitor the associated environmental aspects, must be formulated. The categorisation of impacts into medium priority and high priority will assist IPTs to make appropriate management decisions for addressing the impacts.

7.3.2 For each impact, or group of similar impacts, evaluated as medium or high priority it is necessary to identify both the assessment methodology and the assessment criterion adopted. Where a number of assessment methodologies exist it will be necessary to provide a justification for the one chosen. However, in some cases it may be advisable to use more than one assessment method for the same issue to provide corroboration of the results. This is required to ensure that readers of the EIA Report can understand the level of reliance that can be given to any forecasts or predictions used.

7.3.3 The Source-Pathway-Receptor (SPR) Model illustrated below, may be useful in formulating appropriate mitigation measures for both medium priority and high priority impacts.

Figure 5.2 – Environmental impact chain



7.3.4 The cause (“**source**”) of the environmental risk follows a route (“**pathway**”) to the entity (“**receptor**”) which could come into contact with the environmentally damaging/polluting substance. A “pollution linkage” occurs when all three components of the SPR Model are in place. Therefore, elimination of any of these three components will break the pollution linkage and mitigate or eliminate the environmental risk. Attention should be placed initially at eliminating or reducing the environmental impact at source before examining ways of removing/protecting the pathway or receptor. **Form EMP02/F/01** Environmental Feature Matrix, should help with this. Mitigation actions identified at this stage should be recorded in the EIA Report.

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7.3.5 If, even after this consideration, it is established that no mitigation measures are available to counter any residual adverse EIs, then the nature of the residual risk should be recorded and explained in the EIA Report.

7.3.6 Note - environmental management has not failed in any way if environmental impacts cannot be removed or mitigated against. Providing there is an operational case that outweighs the environmental issues, the project can still proceed because all the outputs of Procedures EMP02 – Screening and Scoping, EMP03 – Impact Priority Evaluation and EMP05 – Environmental Impact Assessment Reporting will have been considered in the EIA. There is therefore evidence that the environmental impacts have been considered, and that practical and reasonable measures have been put in place to eliminate all but the unavoidable adverse EIs.

7.4 Step 3: Consider cumulative impacts

7.4.1 Where an impact is unique to each life cycle stage the assessment of that impact can be straightforward and in some cases may even be trivial. However, in some projects the importance of individual impacts may only become evident when the cumulative effects are considered. In most cases this is taken care of by the frequency and duration element entered in **EMP02/F/01** – Environmental Feature Matrix.

7.4.2 However, there may be occasions when a project has a number of environmental aspects that occur in the same life cycle stage and which give rise to the same impact. This could include burning of fuel, consumption of engine oil and use of electricity all of which produce the same environmental impact - CO₂ emissions to air. In such cases it may be more effective to mitigate the impacts together instead of individually. Using the impact code in the Environmental Feature Matrix within a life cycle stage can assist in identifying such impacts.

7.4.3 There may be situations where the same environmental impact occurs in each of a number of life cycle stages. In this case the relevant impact code in the Environmental Feature Matrix can also be used to group incidents of the same impact across the life cycle stages.

7.5 Step 4: Identify ways to enhance any positive environmental impacts

7.5.1 If having undertaken Procedure EMP03 – Impact Priority Evaluation, positive environmental impacts have been identified, ways of enhancing these positive effects should now be identified and recorded for inclusion in the EIA Report.

7.6 Step 5: Produce EIA Report

7.6.1 There are many formats that an EIA Report may follow. **Guidance Sheet EMP05/G/01** – Suggested Content for EIA Report, can be used either as a specification for commissioning an EIA or for use as a guide for an internally produced EIA. **Guidance Sheet EMP05/G/02** – Checklist for EIA Report, is intended as a checklist of quality rather than content and can either be used to assist the production of the EIA Report and/or to check an EIA Report produced by a third party. A copy of the EIA Report should be stored in the project's Environmental Case.

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7.7 Step 6: Prepare Environmental Impact Statement (EIS)

7.7.1 Essentially, the EIS is a non technical summary of the EIA Report and therefore should avoid technical jargon and lengthy explanations. It should cover the key points of the issues covered in the EIA Report along with an overview of any recommended mitigation measures. A copy of the EIS should be stored in the project's Environmental Case. Formats of EIS may vary, however the following headings should be included as a minimum requirement:

- Description of the equipment or service
- Life cycle stages covered
- Environmental features, adverse and beneficial impacts
- Review of environmental impacts including any residual impacts
- Outline of mitigation measures
- Those responsible for managing mitigation measures

7.8 Approval and Authorisation of an EIS by the IPT Leader

7.8.1 Authorisation of the Environmental Impact Statement by the IPT Leader, at a particular point in a project's life cycle, indicates their satisfaction with the progress of the project's EMS, and specifically the Environmental Impact Assessment Processes. Authorisation by the IPT Leader also indicates their acceptance that the environmental risks described in the EIS and associated with the project, and any control or mitigation measures, are appropriate for that stage of the project's life cycle. The Authorised EIS forms an auditable project record.

7.8.2 Before authorisation, the IPT Leader must ensure the satisfactory resolution of any deficiencies or observations raised through the project's Environmental Committee or by parties engaged by the IPT Leader to undertake independent audits or assessments.

8 RECORDS AND PROJECT DOCUMENTATION

8.1.1 Where relevant, the outputs from this procedure should feed into the following:

- a. SRD (System Requirement Document) – for any specific environmental performance requirements;
- b. CSA (Customer Supplier Agreement) – to document agreements on environmental studies to be delivered by the IPT;
- c. TLMP (Through Life Management Plan);
- d. Input report for Initial or Main Gate.

8.1.2 A copy of the information produced from following this procedure should be stored in the project's Environmental Case.

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9 RECOMMENDED TOOLS AND FORMS

- a. **Guidance Sheet EMP05/G/01** – Suggested Content for EIA Report.

Guidance Sheet EMP05/G/02 – Checklist for EIA Report.

10 GUIDANCE

10.1 General

10.1.1 General guidance on the EIA will be found in JSP 418. A number of other JSPs also include general advice on some EIA matters (JSPs 454, 520, 442, 518, 430, and 553). The Defence Estates' Sustainability Appraisal Handbook is helpful on EIA issues and processes.

10.1.2 It may be possible to obtain existing EIA reports and studies from suppliers and manufacturers operating in the same technology areas or which produce similar and related equipment or services.

10.2 Aligning Safety and Environment

10.2.1 The key alignment opportunities in EMP05 are to conduct assessment studies to meet both safety and environmental evaluation requirements. Where this is not possible alignment should also help ensure that results of safety assessments are reviewed for environmental implications and vice versa.

10.3 Guidance for Different Acquisition Strategies

10.3.1 The objectives for this procedure apply to all acquisition strategies. It is MOD policy that the same standards are met, and that assurance that these standards have been met can be demonstrated for all projects. In many cases EIAs will be best completed by contractors and equipment suppliers that have knowledge of the specific issues and areas.

10.4 Legacy Systems

10.4.1 Outputs from this procedure for legacy systems should be neither over-engineered nor incomplete (the outputs from EMP02-04 will help define the most appropriate extent and nature of the work required). In all cases it will be important to ensure that all applicable legislative and other requirements have been identified to confirm that all appropriate mitigation measures have been identified and shared with the stakeholders or are now agreed and actioned. Only in cases where a mid-life update or similar is planned would there be a need to look at possible elimination of impacts. Thus it will be seen that for many legacy systems, with limited life, it will be appropriate to concentrate on disposal arrangements and impacts especially where there is no evidence of environmental incidents or accidents associated with the system.

10.4.2 This procedure still requires an EIS to be produced in all cases, even if it is possible to limit the extent and scope of the EIA process for a legacy system.

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10.5 Warnings and Potential Project Risks

- 10.5.1 If this procedure is not completed, and reviewed (see Procedure EMP08 – Continuous Review), in a timely manner there will be an increase in risk that subsequent work will go ahead with unrecognised environmental liabilities. Any short comings in this could compromise Main Gate procedures and approvals. In addition, short comings could also result in costly reworks, especially where opportunities to influence design decisions are missed.

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