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5. Impact Priority Evaluation

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Summary:
The procedure provides guidance on how to assess the priority for managing the environmental impact. The aim of this procedure is to assign all the identified impacts to a priority of Low, Medium or High. This will determine which risks and impacts deserve further consideration.

5.1. Procedural Overview

5.1.0.1.

This procedure shall be applied to the environmental impacts documented in Form EMP04/F/01 – Environmental Feature Matrix [1]. The procedure provides guidance on how to assess the priority of the environmental impact.

5.1.0.2.

Environmental impacts for all life cycle stages and conditions recorded in Form EMP04/F/01 – Environmental Feature Matrix [1]. This procedure provides guidance on how to assess the priority of the environmental impact.

Upon completing this procedure (EMP05), a decision is required whether a limited Environmental Impact Screening and Scoping (EISS) study (completion of EMP's 1 to 5) and report is sufficient or an in depth Environmental Impact Management (EIM) study (completion of all EMP's) and report is required. Both options will be subject to continual review (EMP09 [2]) throughout the life of the project and will inform the Environmental Case.

Undertake an EIM if there is either:

1. One or more medium or high priority impacts identified in the EFM; or
2. The absence of an EIM would cause the effect of a positive environmental impact to diminish or come to an end; or
3. Insufficient information to decide whether any adverse environmental impact present a significant material risk to the environment; or
4. Insufficient information to decide whether an environmental impact is adverse.

5.2. Procedure

5.2.0.1.

Environmental impacts for all life cycle stages and conditions recorded in Form EMP04/F/01 [1] [3]shall be evaluated using this procedure.

Note - studies and evaluations already undertaken for similar equipment systems and capabilities will be extremely helpful in completing this procedure. In some cases it may be possible to use an existing evaluation in its entirety or expand if the capability is sufficiently similar and the evaluation is recent.

5.2.1. Step 1: Number of categories to be used

5.2.1.1.

In order to give a reasonable degree of resolution between environmental impacts, 5 categories shall be used for both severity and frequency/duration. This will provide enough variation and resolution to prioritise the environmental impacts of most projects.

It is recognised that in some circumstances utilising a different number of categories may present assessment advantages. Where this may be the case, approval from QSEP must be received. See table below.

5.2.2. Step 2: Assign categories

5.2.2.1.

This step requires you to assign categories for both severity and frequency. In order to ensure consistency between approaches the following categories for severity and frequency/duration should be used by all Project Teams.

5.2.3. Severity

5.2.3.1.

The severity of an environmental impact is a measure of the degree of environmental damage that the impact represents. The lowest rating for severity is 'Minor' and the highest 'Critical'.

5.2.3.2.

The Project Team shall assign relevant and proportional definitions to each of these categories to make them applicable to their project. These can be based on factors such as resource use, energy use, air emissions, quantities and type of waste produced, scale of environmental impact or persistence of pollution in the environment. Additionally, Delivery Teams should consider stakeholder, standards and wider concerns, where appropriate, and should ensure that these are effectively built into the environmental severity definitions for the project. An appropriately populated Environmental Committee will assist. The following list can be used as a guide but is not intended to be comprehensive:

5.2.3.3.

1. **Minor**

   Low to medium use of renewable resources or low use of non-renewable resources. Non-hazardous waste produced and recycled, or small amounts disposed of as inert waste. Notable but minor environmental impact, negligible but widespread. For example, temporary disturbance or minor damage to habitat of common species only.

2. **Moderate**

   Moderate to large use of renewable resources, moderate use of non-renewable resources. Notable non-hazardous waste disposal, hazardous waste (in Scotland, special waste) recycled, small amounts of hazardous waste disposal. Environmental impact limited to a small area, or widespread impact with no or minimal lasting damage. For example, permanent damage to habitat of common species only.

3. **Major**

   Significant use of non-renewable resources, limited use of toxic substances. Notable amount of hazardous waste produced. Notable lasting environmental damage. For example, destruction of habitat of common species or temporary damage to habitat of endangered species.

4. **Severe**

   Large scale use of non-renewable resources, significant use of toxic substances. Large amount of hazardous waste produced. Large scale environmental damage with national significance, e.g. release of gases contributing to acid rain (NOx, SOx), or permanent damage to habitat of endangered species.

5. **Critical**

   Large scale use of scarce resources or toxic resources e.g. use of heavy metals. Very large amount of hazardous waste produced. Severe widespread irreversible environmental damage of international significance e.g. large scale release of greenhouse gases, release of ozone depleting substances or destruction of habitat of endangered species.

5.2.4. Frequency/duration

5.2.4.1.

'Frequency' is defined as the number of times that the environmental impact is expected to occur, for example, once a week, once a day or once a year. The 'duration' is the length of time that the impact lasts for, for example, 30 minutes, 5 hours or continuous. The categories you choose may refer to one or both of these parameters, for example, 'once a week' or '5 hours' or '5 hours per week'. They could also include a range of frequencies or durations for example, 'between 5 and 30 hours a week'. However, the categories must be consistent with each other, so it would not be acceptable to have 'once a week' and '10 hours' as different categories.

5.2.4.2.

The categories chosen will depend upon the nature of the environmental impacts of the project and the overall lifetime of the project. For complex projects which have many and varied environmental impacts, it may be best to choose relatively generic categories. This will ensure that the categories are appropriate for assessing normal, abnormal and emergency situations.

5.2.4.3.

The highest category for this issue must be 'continuous' and the lowest category 'occurs very rarely, short duration'.

Establishing a relevant frequency criteria is crucial. The following table provides two examples of frequency.

1	Not anticipated within PSS lifetime, occurs very rarely, short duration	1	Not anticipated within PSS lifetime, occurs very rarely, short duration
2	Annually	2	0 – 20 hours
3	Monthly / Weekly	3	20 – 300 hours
4	Daily	4	Over 300 hours
5	Continuously	5	Continuously

5.2.4.4.

The frequency or duration should be proportionate and relevant to the PSS and operating environment. For example, it is inappropriate for all risks to be assessed as Low, as this means the categories are skewed, the threshold is not set at an appropriate level, and that no further management is required. This is rarely the case, unless the Environmental Management System is very mature, and lots of effort to address impacts has been made. The frequency and duration categories shall present an appropriate spread of results across the categories. This spread across categories shall be justifiable to auditors.

5.2.4.5.

Where understanding of the issues and impacts that may arise is limited within the Project Team, especially where Project risk may be recognised, a Subject Matter Expert shall be engaged to clarify this. Any consultation or advice received by the Project Team must be documented.

5.2.5. Step 3: Undertake evaluation

5.2.5.1.

Once the methodology for priority evaluation is established, environmental impacts shall be prioritised using the categories chosen. The details of the assessment shall be entered directly into the relevant columns in EMP04/F/01 – Environmental Feature Matrix [4]. [5]

5.2.5.2.

The threshold score for further action is "B" for medium priority impacts, with a higher threshold score of "A" for high priority impacts. The two threshold levels are intended to give greater resolution between priority of impacts which require action and will assist the Project Team to make management decisions (including whether or not to embark upon a full Environmental Impact Management (EIM) approach).

Impacts scoring "C" should not need any immediate further action. However, they can often provide an opportunity for straightforward 'quick win' environmental improvements. These 'quick wins' can build enthusiasm and interest and assist with gathering environmental management momentum.

The review of priority evaluation is covered in Procedure EMP09 – Continuous Review. [2]

5.2.5.3.

Some projects may not have any environmental impacts above the threshold level (i.e. classed as medium or high priority). In these situations it is unlikely that an EIM study will be required and an EISS approach will suffice. However, opportunities should still be considered for implementing straightforward mitigation measures. This initial evaluation does not mean that the priority of the environmental impacts could not change over time or if for instance new legislative or policy requirements are introduced or the operating environment changes. Reviews of the priority evaluation are covered by following Procedure EMP09 – Continuous Review [6]. [2]

5.2.5.4.

Although medium and high priority impacts will be particularly targeted for further action, this will be in addition to any issues highlighted for action as a result of Procedure EMP02 [7] and EMP03 [8].

It is impracticable to provide hard and fast rules as to what is, or is not, a high or a medium priority, as the evaluations have elements of judgement and subjectivity as well as being essentially comparative processes. However, it is possible to provide some good general indicators of what is or might be high priority issues. For instance, for a high priority issue there will be a high risk of reputational damage, prosecution, or operational impact. By the same token a low priority issue is very unlikely to result in reputational damage, prosecution or any operational impacts. The Project Team should take a view as to what it can realistically achieve, or provide effort towards the issues that lie in between these two extremes, and set the threshold

accordingly.

Where a sustainable procurement risk and opportunity scoping exercise has been undertaken at EMP04, a Risk and Opportunity Priority Assessment shall be undertaken. This is step 3 of the Sustainable Procurement Toolkit.

The [9]Sustainable Procurement Guide [10] and Toolkit [11] provide guidance and support tools.

5.2.6. Step 4: Increase resolution between impacts (optional)

5.2.6.1.

You may find that having applied your chosen methodology you have a cluster of environmental impacts with very similar scores close to the assigned threshold score. This can make it difficult to decide which should receive priority action. In this case you may choose to apply a further 'filter' to the results based on the scale of the environmental impact. Scale in this context is determined by the physical effect of the impact. For example, the area over which air emissions may disperse. The premise behind this additional step is that the larger the area affected by the environmental impact the higher the priority that impact can be given.

5.2.6.2.

Following an assessment of the resolution between impacts it should be possible to re-organise the impacts in order of the scale of impact which can indicate which impacts require greater priority. Outputs from EMP04/F/01 - The Environmental Matrix [4] shall identify any high priority environmental impacts, this data must be recorded in the Environmental Case Report.

5.2.6.3.

The fundamental purpose of conducting the evaluation is to reduce impact through life. Each Operating Centre will have distinct tolerance of impact; therefore specific guidance on tolerability and impact reduction shall be sought from relevant Operating Centres.

5.2.7. Step 5: Record methodology

5.2.7.1.

The methodology in this procedure is purposefully flexible in order that Project Teams can adapt it for relevance to their particular project. However, this means that Project Teams must document and justify the actual methodology that they use. Form EMP05/F/01 [12] [13]- Record of Priority Evaluation Methodology [12], can be used for this purpose.

5.2.7.2.

The methodology that is determined at this stage shall be used consistently throughout the project lifetime. Also, note that due to the varying nature of projects and the ability to vary the definitions of category classes it is inadvisable to use the resulting priority scores to compare projects.

5.2.8. Step 6 Study and Reporting Approach

5.2.8.1.

Upon completing this procedure (EMP05), a decision is required whether a limited Environmental Impact Screening and Scoping (EISS) study and report is sufficient or an in depth Environmental Impact Management (EIM) study and report is required. Both options will be subject to continual review throughout the life of the project and will inform the Environmental Case.

Undertake an EIM if there is either:

1. One or more medium or high priority impacts identified in the EFM; or
2. The absence of an EIM would cause the effect of a positive environmental impact to diminish or come to an end; or
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4. Insufficient information to decide whether an environmental impact is adverse.

Content based upon agreed approach to EISS/EIM decision – reflecting initial content of this EMP

The Environmental Impact Screening and Scoping (EISS) Report and the Environmental Impact Statement shall be developed and form part of the Environmental Case report. The EISS report will present the outcomes of EMP01 to EMP05. The Environmental Impact Statement is a non-technical summary of the EISS report and therefore should avoid technical jargon and lengthy explanations. It shall cover the key points of the issues covered in the assessment along with an overview of any recommended mitigation measures.

The Environmental Impact Statement should contain:

1. Description of the equipment or service;
2. Life cycle stages covered;
3. Environmental features, adverse and beneficial impacts;
4. Review of environmental impacts including any residual impacts;
5. Outline of any mitigation measures;
6. Those responsible for managing mitigation measures.

In cases where the Project Team proceed to an EIM study the EISS report outputs will form the basis of the EIM report.

Note: regardless of study type it is important to maintain a record of all impacts including category “C” / Low Priority impacts.

5.2.8.2.

Environmental impacts assessed as "High Priority / A" and those assessed as "Medium Priority / B" that have the potential to become "High Priority / A" during the PSS lifecycle should be escalated in accordance with GMP00. S&EP Leaflet 03/2011: Equipment Safety and Environmental Protection (SEP) Risk Referral. [14]

5.2.9. Method

5.2.9.1.

A Suitably Qualified and Experienced Personnel (SQEP) body shall be formed to determine impact priority. This should be the same SQEP body established in earlier stages of the assessment. In order to increase efficiency it may be useful to cover more than one EMP when the SQEP body are assembled.

5.2.9.2.

The output should be verified by the SQEP body and acceptance by the Project Team Leader will be by approval of the Environmental Case Report.

5.3. Responsibilities

5.3.0.1.

The Project Team Leader may delegate to internal focal point(s) and subsequently to external advisors where specialist knowledge is not available internally.

5.3.0.2.

The Project Team Leader is accountable for environmental screening and scoping.

5.4. When

5.4.1. Initial Application

5.4.1.1.

This procedure should be applied in the Concept Stage, prior to Initial Gate approval, or at the beginning of the Assessment Stage. If these stages have already been passed, work should be conducted in the current stage.

5.5. Review

5.5.0.1.

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 EMP09 – Continuous Review [2].

5.5.1. Required Inputs

5.5.1.1.

The “Common Documents”

1. User Requirement Document (URD);
2. JSP 418 (Sustainable Development and Environment Manual) [15];
3. DSA01.1 Defence Policy for Health, Safety and Environmental Protection [15].

Outputs from:

1. Outputs from Procedures EMP01, [16] EMP02 [7], EMP03 [8] and EMP04. [17]

5.6. Required Outputs

5.6.0.1.

Conformance with the standard shall be demonstrated by completing the following required outputs:

1. Completed Form EMP04/F/01 – Environmental Feature Matrix [4], which was started in EMP04 [17] will now be completed;
2. Completed Form EMP05/F/01 – Record of priority evaluation methodology [12].

5.6.1. Records and Project Documentation

5.6.1.1.

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

1. System Requirement Document – for any specific environmental performance requirements;
2. Procurement process (design and contracting considerations);
3. Customer Supplier Agreement – to document agreements on environmental studies to be delivered by the Project Team;
4. Through Life Management Plan;
5. Input report for Initial Gate.

5.6.1.2.

Information produced shall be stored in the project's Environmental Case.

5.7. Further Guidance

5.7.1. Aligning Safety and Environment

5.7.1.1.

The key alignment opportunity is to cross reference Environmental Impact Evaluation with Safety Impact Evaluation so that common issues are identified and where possible assessed together.

5.7.2. Legacy Systems

5.7.2.1.

When applying this procedure to legacy systems the following questions shall be asked:

1. What is the remaining length of time of the equipment's or service projected service life?
2. Has the legislation review highlighted a need for mitigation that has not already been put in place?
3. Are there future plans for major modifications and capability enhancements, and if so when?
4. Is there historic evidence of actual environmental incidents and impacts, if so when, where and what?
5. Have there been any legal compliance problems to date or issues with regulators?
6. Has there been any stakeholder (particularly external to MOD) interest to date (for example Parliamentary Questions or enquiries regarding the equipment's environmental performance)?

5.7.3. Warnings and Potential Project Risks

5.7.3.1.

If this procedure is not completed, and reviewed (see Procedure EMP09 – Continuous Review [2]), in a timely manner there will be an increase in risk that subsequent work will go ahead with unrecognised environmental liabilities. Equally important is that a poor impact evaluation may cause Project Teams to expend unnecessary time and effort on issues which could be considered as insignificant. Any short comings in the application of this procedure could compromise Initial Gate procedures and approvals. In addition, short comings could also result in costly reworks, especially where opportunities to influence design decisions are missed.

5.8. Version Control

5.8.1. Version 2.3 to 3.0 Uplift

5.8.1.1.

Major uplift from the Acquisition System Guidance (ASG) to online version. POEMS has undergone major revision. Refer to the POEMS Transition Document [18] for details.

5.8.2. Version 3.1 uplift

5.8.2.1.

Changes in wording relating to EISS / EIM decision. Refer to the POEMS Transition Document [18] for details.

5.8.3. Version 3.1 to 3.2 uplift

5.8.3.1.

The following changes have been in this uplift:

- New SP content para 5.2.3.2 & 5.2.5.4 following the release of the SP Tool
- Update to para 5.2.8.1 with environmental content following the T45 trials.

See the POEMS Transition Document [18] for further details.

Source URL: https://www.asems.mod.uk/guidance/poems/emp05

Links
[1] https://www.asems.mod.uk/sites/default/files/documents/EMP/EMP04_F_01-SP_EFM_Ver_2.xlsx
[2] https://www.asems.mod.uk/guidance/poems/emp09
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