



**CARDIFF AND VALE NHS TRUST
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**CARDIFF UNIVERSITY
PRIFYSGOL CAERDYDD**



ENVIRONMENTAL ASPECTS IDENTIFICATION & ASSESSMENT

Procedure 23

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1. Introduction

- 1.1 Environmental aspects are the elements of the Cardiff and Vale NHS Trust / Cardiff University - Wales College of Medicine, hereinafter referred to as the Organisation's activities that cause an environmental impact. For example, one of the environmental aspects of using a fume cupboard [activity] in a laboratory is the emission of vapours [environmental aspect]. The reason this is an environmental aspect is because fumes cause air pollution [environmental impact] however small they may be. At the other end of the scale, gas consumption from boiler operation is an environmental aspect because its use in heating [activity] results in a reduction of a non-renewable resource [environmental impact].
- 1.2 The environmental aspects of the Organisation must be identified and assessed to determine those that are the most significant. This then enables resources to be focused on addressing specific aspects. ISO 14001 requires this to be an on-going process. Therefore the aspects must be reviewed on a regular basis to ensure that all current aspects have been identified and that they are correctly prioritised.

2. Procedure

2.1 Identification

- 2.1.1 Identify the inputs and outputs to and from your activities and then identify the environmental aspects and impacts that arise from these inputs and outputs. This should include (where applicable) identification of direct and indirect environmental aspects with cognisance of Organisational control or influence, and those aspects arising from normal, abnormal or reasonably foreseeable emergency conditions.
- 2.1.2 To assist in the identification of the Organisation's environmental aspects process flow diagrams can be used. If they are to be used a diagram will be required for each activity, e.g. maintenance, patient care, surgery. It should be noted that these are general activity groups and further flow diagrams may be required for specific activities within each of these groups.
- 2.1.3 The identification process shall cover the aspect categories listed in the following bullet points and shall consider the findings of the Preliminary Environmental Review. It should be noted that not all categories will necessarily be applicable to all departments or all stages of a process. It is also not necessary to consider the indirect environmental aspects of the production and supply of materials as this will be considered in a separate procedure.
- 2.1.4 Aspects Categories:
- ▶ Air emissions
 - ▶ Energy
 - ▶ Materials (Procurement)
 - ▶ Materials (Storage and Use)
 - ▶ Releases to Water
 - ▶ Waste Management
 - ▶ Water
 - ▶ Other issues

2.1.5 Record each environmental aspect in the Aspects Register, with the required information. (Examples are given in the Register). Where appropriate, group together similar aspects of a minor nature as a single aspect for further consideration.

2.1.6 Any aspect with a rating of 12 or above will be considered significant.

2.2 Aspects Assessment

2.2.1 The aim of an aspects assessment is to determine which of the identified environmental aspects are significant. In many circumstances, professional judgement will play an important role in determining how to address significance and this can be helped through consultation with appropriate stakeholders. It is the significant aspects that will be controlled within the EMS. Significance is determined by identifying the level of control on each environmental aspect and the severity of the environmental impact related to each aspect.

2.2.2 Method - Taking each aspect in turn identify a Control and Severity rating. This is a subjective exercise and the results may require review during the process. The Rating Matrix can be used as a guide for determining relative significance.

2.2.3 Control - Identify a Control rating from the 'Control scale' on the Rating Matrix. To do this consider:

- ▶ the details provided in the Environmental Aspects Register;
- ▶ the descriptions in the Control Rating Assessment Table, the list of Control Factors, or any other options that may be relevant;
- ▶ the ratings given to other Environmental Aspects.

2.3 Control Rating Assessment Table

Rating	Description
5 Negligible or no control	Control of the aspect is nonexistent or totally ineffectual. There are no controls and knowledge of the environmental impact is negligible.
4 Slight degree of control	There are some controls in place (either procedures or physical) and there is some awareness of a control requirement. Such controls only have limited effect on reducing the relevant environmental impact.
3 Moderate degree of control	There is recognisable control on the aspect. This may include procedures, management controls or physical controls, but they are not totally effectual and implementation / use of them are not comprehensive.
2 Medium degree of control	There is significant control on the aspect through procedures, management control and physical controls. Relevant parties are aware of such controls and they are generally affectively applied.
1 High degree of control	All (or practically all) necessary procedures, management controls and best practice have been implemented and compliance with such procedures and best practice is high. The impact has been minimised to very significant extent.

2.4 Control Factors

- ▶ Compliance with Environmental Legislation and other requirements etc
- ▶ Environmental control procedures (e.g. waste handling, energy consumption through lights and appliances)
- ▶ Compliance with environmental control procedures
- ▶ Environmental control, e.g. bunded storage facilities, handling apparatus, abatement technology, spill kits etc
- ▶ Knowledge of an impact
- ▶ Maintenance of associated machinery, plant and equipment
- ▶ Records of an Environmental Impact
- ▶ Environmental awareness training including competency
- ▶ Accident and emergency training e.g. simulated spillage response training etc.
- ▶ Monitoring of environmental aspects and impacts
- ▶ Compliance with minimisation initiatives

2.5 Severity

2.5.1 Identify a Severity rating from the 'Severity scale' on the Rating Matrix. To do this consider:

- ▶ the details provided in the Environmental Aspects Register
- ▶ the descriptions in the Severity Rating Assessment Table, the list of Aspect / Impact Parameters, or any other options that may be relevant
- ▶ by comparison to the ratings given to other Environmental Aspects.

Severity Rating Assessment Table

Rating	Description
5 Severe	The parameters of the aspect / impact are comparatively high and combined in a manner that causes, or can cause, severe environmental damage, major pollution, e.g. permanent / long-term environmental damage / impacts.
4 Major	The parameters of the aspect / impact exist at a level that does or will cause environmental damage, but the damage is not permanent or is only medium term.
3 Moderate	The parameters of the aspect / impact all exist at recognisable levels and are / can cause environmental damage, but such damage is short term and always repairable.
2 Minor	Some of the parameters exist at recognisable levels and are (can) result in environmental change, but the effect of such change is easily recoverable or self recovering, and there is no lasting impact.
1 Insignificant / Positive	None of the relevant parameters exist at a level that can cause environmental change, or the aspect results in a positive environmental effect.

2.6 Aspect / Impact Parameters

- ▶ Quantity (volume and / or rate of emission or consumption)
- ▶ Toxicity (e.g. environmental threat)
- ▶ Existence of applicable legislation
- ▶ Frequency of occurrence (normal operating conditions only)
- ▶ Likelihood of occurrence (abnormal / emergency situations only)
- ▶ Transmission effectiveness of pathway
- ▶ Sensitivity of environmental receptor (an environmental target that could be degraded by the escape of the hazard)
- ▶ Public perception of environmental aspects
- ▶ Number of complaints received
- ▶ Completion of environmental improvement programmes
- ▶ size, nature, frequency, likelihood and duration of the environmental impact;
- ▶ the sensitivity of the receiving environment and the extent to which the impact is reversible;
- ▶ the extent to which the impact (or the activity, product or service which causes it) is covered by environmental laws and regulations, or contractual requirements; and
- ▶ the importance of the impact to interested parties - e.g. employees, neighbours, regulators.

2.6.1 *Significance Assessment Coding*

To ensure that the assessment is auditable:

- ▶ specify the reason for significance, based on both the control and the severity rating, in the Environmental Aspects Register;

2.6.2 To enable significance to be determined calculate a Rating Number for each Environmental Aspect. This is the product of its Control and Severity ratings, e.g. Control of 5 and Severity of 3 gives a Rating Number of 15.

2.6.3 Record the Rating Number in the Environmental Aspects Register.

2.7 Rating Matrix

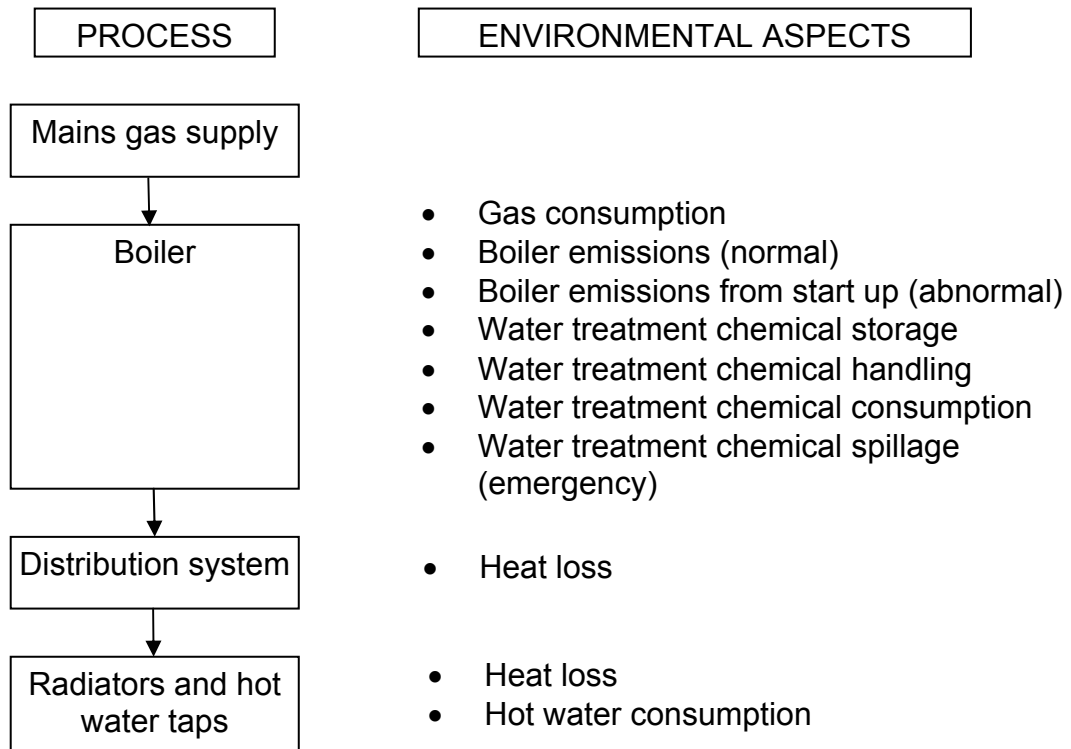
A 'traffic light' system has been developed to prioritise the impacts. Red indicates that the aspect is significant; amber indicates that the impact could become significant and green indicates that the impact is not deemed significant.

		CONTROL					
		Negligible	Slight	Moderate	Medium	High	
		5	4	3	2	1	
SEVERITY	Severe	5	25	20	15	10	5
	Major	4	20	16	12	8	4
	Moderate	3	15	12	9	6	3
	Minor	2	10	8	6	4	2
	Insignificant / Positive	1	5	4	3	2	1

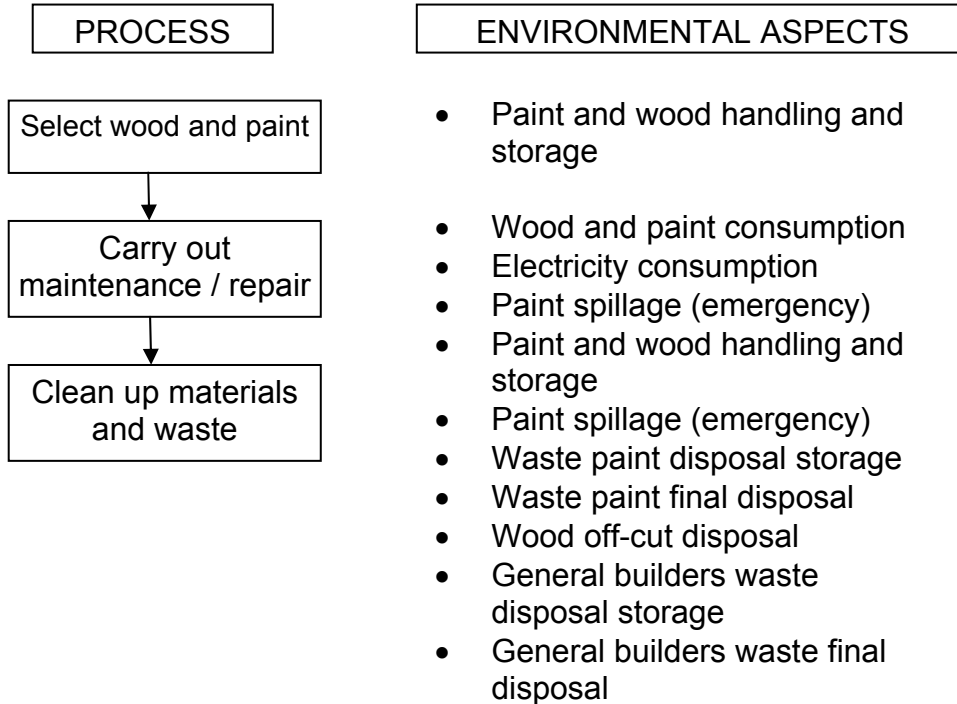
3. Examples

Guideline examples of environmental aspects identification and assessment are provided by the following process charts and the associated examples provided in the Aspects Register.

Heating



Window Frame Maintenance



4. Further References

- Document 5 : Register of Environmental Aspects and Impacts
- Procedure 14 : Maintenance of Register of Environmental Aspects and Impacts

The above documents may be accessed via the relevant section of the EMS Manual documentation published on the Trust Intranet and University Internet

5. Record Forms

None