

1. OBJECTIVE

This procedure has been developed to detail the activities and data required to generate and maintain the aspects register of the CELSA manufacturing (UK) Ltd ISO14001:2015 Environmental Management System (EMS).

2. SCOPE

This procedure covers all activities associated with the identification of all direct and indirect environmental aspects. The procedure also details the process associated with the identification of environmental aspects with a significant impact on the environment. This procedure is applicable to all CELSA and contracted staff associated with this activity. CELSA in the terms of this document covers all sites associated with the CELSA Cardiff business.

3. RESPONSIBILITIES

The responsibilities, associated with the discreet stages of this process, are allocated on the attached flow diagram.

4. IMPLEMENTATION

4.1 General- Aspect (Definition)

An aspect is an element of the business's activities, products and services, within the defined scope of the Environmental Management System, that it can control and those that it can influence taking into account planned or new developments, or new or modified activities, products and services.

4.2 Aspects Register

The Aspect register will be compiled and maintained by the Environmental Department.

4.3 Environmental Impact

Direct and indirect environmental aspects associated with CELSA's activities, products and services will be considered, including but not limited to the following:

- Legal requirements and permit limits
- Emissions to air
- Releases to water
- Waste
- Contaminated land
- Use of natural resources and raw /auxiliary materials including energy
- Local or nuisance issues including noise, vibration, odour dust, visual impacts
- Transportation/Logistics (raw materials and goods/services)
- Environmental accidents, incidents, emergency situations

- Effects on biodiversity
- Purchasing

4.4 Progressing of Actions

Actions are highlighted and recorded and progressed in monthly area EMS meetings. For certain significant aspects with many associated improvement actions, these may be recorded as part of a separate meeting.

4.5 Aspect scoring

The scoring method is determined by category (material use or environmental impact) and the criteria outlined in section 4. Where it is calculated based on **material use** the method detailed in 4.7.1 is to be used. Where significance is determined from the **environmental impact** the method detailed in 4.7.2 is used.

The 'Environmental Potential Failure Mode & Effect Analysis' method for scoring aspects is used. This scoring method gives weighting to how likely any errors or failures are to be detected, and reduces the significance of an aspect if it is likely that a failure will be predicted and dealt with before it has an impact.

To generate an aspect score / risk priority number, the severity of the failure impact x frequency of occurrence x likelihood of detection is calculated. Any aspects with a risk priority number of more than 100 will be considered a significant aspect.

4.6 Significant Aspects

An aspect is defined as **significant if it exceeds the predetermined threshold score of 100**. Significant aspects are transferred to the Significant Aspect Register tab. Here, the risk mitigation measures and actions are listed, and the risk priority number is re-calculated. Any aspects that retain a score of more than 100 after this process will have action plans assigned to them to reduce the risk until it falls under this threshold.

4.7 Aspects Review

The aspects will be reviewed, at minimum, on an annual basis as part of the annual management review process. Aspects will also be reviewed as part of the evaluation of feedback from the investigation on incidents.

4.7.1 Significance of Material Use

Environmental Impact = Significance Rating (YES/NO) + (A x B x C x D)

Where significance rating (YES/NO) = weighting factor of 50. This is applied to water and energy consumption as this is significant in steel manufacturing or where an aspect is subject to any environmental legislation, regulatory controls or requirements the business subscribes to.

MATERIAL USE		Score
A	Annual Quantity Used	
	less than 1 tonne or m ³	1
	1.1-10 tonnes or m ³	2
	10.1-100 tonnes or m ³	3
	100.1-1000 tonnes or m ³	4
	more than 1000 tonnes or m ³	5
B	Nature of Material	
	Renewable natural resource	1
	Manufactured/refined from above	2
	Manufactured from other manufactured materials	3
	Manufactured/refined from above	4
	Non-renewable natural resource	5
C	Recycled Content	
	Less than 10%	5
	10.1-25%	4
	25.1-50%	3
	50-90%	2
	more than 90%	1
D	Stakeholder Importance	
	Yes	2
	No	1

4.7.2 Significance of Environmental Aspects

Environmental Impact = Significance Rating (YES/NO) + (A x B x C x D)

Where significance rating (YES/NO) = weighting factor of 50. This is applied to water and energy consumption as this is significant in steel manufacturing or where an aspect is subject to any environmental legislation, regulatory controls or requirements the business subscribes to.

Environmental Aspect Scoring

Severity		
<i>How environmentally significant are the impacts associated with the aspect?</i>	Resource depletion; non-hazardous waste generation	1-2
	Excessive resource depletion; release to the environment; hazardous waste generation	3-4
	Significant environmentally intensive resource consumed (e.g. natural gas, charge carbon, oils etc.); climate change impact.	5-6
	Will result in permit/legal violation if immediate action not taken; cumulative damage to the environment will occur over time; may result in complaints; significant climate change impact E.g. fire breaking out, ongoing fugitive dust	7-8
	Violation of a permit/legal requirement; irreparable/severe damage to the environment; complaints received from external stakeholders. E.g. mass release of oil to water body, sudden and large release of hazardous dust to air due to emergency stop	9-10
Frequency of occurrence/use of material		
<i>How robust is the system that manages the aspect to prevent failure? Can large fluctuations in operations be managed using existing processes? For materials, how much is used in routine operations?</i>	Once per year	1-3
	Once per month	4-6
	Every day	7-10

Likelihood of detection <i>How stable is the process and how likely will failures and fluctuations be predicted or picked up on? How much control is this aspect under?</i>	51-100% detection rate; systems are in place to ensure failure in system is detected (e.g. CEMS reports automatically generated and alarms that are triggered at threshold exceedances; radiation alarms for incoming site deliveries).	1-3
	6-50% detection rate; detection of failure may happen depending on circumstances (e.g. visual account from someone who happens to be present with functions in place to enable this to be reported to relevant stakeholders i.e. ProSafety)	4-6
	≤5% detection rate (it is unlikely that failure in the system will be detected/there is no agreed process for reporting a failure e.g. water leak inside machinery, noise outside of office hours)	7-10

5. DOCUMENTATION

The aspects register will be maintained by the Environment Department and reviewed, as a minimum, on an annual basis.

Aspect Register

Responsibility

Start

Notes

Management Representative

Initial Review
Other
Requirements

Register of
Legislation

Policy

Management Representative

Generate &
Maintain
Aspect register

Line Management

Steering Group

The Aspect Register will as a minimum include the following data:-
Activity
Aspect
Actual/potential impact
Mechanism to quantify significance

Review and
Update Aspects

Aspect register to be reviewed annually as minimum

Line Management

Are Aspects
Significant

NO

Management Representative

Incorporate in
Register of Sig.
Aspects

All new significant aspects are to be reviewed to determine whether their requirements can be incorporated within a current procedure or Objective

Environmental Co-coordinator

Is Aspect
Covered by
Procedure

No

Line Management

Generate
Procedure

NO

New Objective and Target to be generated and managed as procedure Ref. CP/B030

Line Management

Generate & Issue
Procedure

Derive Objective
and Targets

Environmental Co-coordinator

To Objective/Target Procedure

END

YES

YES