Risk and Impact

Assessment Standard



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# Introduction

The purpose of this standard is to describe the process to evaluate the safety and health risk and environmental aspects and impacts associated with The Housing Property and Construction (HPC) activities and to assess whether or these are acceptable in relation to people, the environment, assets, and reputation. Assessment of safety and health risks and environmental aspects and impacts is an integral part of managing Safety, Health and Environment

# Scope

The scope of the management system covers all persons, workplaces and operations within HPC.

The diversity of the types of projects, operations and tasks delivered requires them to evaluate risks and impacts based upon business needs for Health & Safety Risk Assessment and Environmental Aspect & Impact Assessment it will also define availability and use of Point of Work Risk and Impact Assessments.

## 2.1 Definitions and Acronyms

|  |  |
| --- | --- |
| Hazard | A source, situation or act with the potential to cause harm, such as injury, ill health, death to people, damage to property, disruption of business or a combination of these. |
| Risk | Risk is the combination of the likelihood of a hazardous event or exposure and the severity of injury and / or ill health with the consequences arising from it. |
| Environmental Aspect | The various ways in which our organisation’s activities, products or services can interact with the environment. Similar to a ‘hazard’. |
| Environmental Impact | Any change to the environment (positive or negative) that takes place as a result of an aspect. Similar to a ‘risk’. The relationship between an aspect and its associated impact can be considered as one of cause and effect. |
| Risk / Impact Assessment | The evaluation of the likelihood of undesired events and the likelihood of harm, impact or damage being caused (i.e. the risk analysis process), together with the value judgements made concerning the significance of the results. |
| Low Risk / Impact | All controls must be continually implemented & monitored. |
| Medium Risk / Impact | Risk / impact that has been reduced to a level that HPC can accept having considered legal and practical obligations, provided that the particular risk or impact has been assessed and is reduced to a level that is ‘as low as reasonably practicable’ (ALARP). |
| High Risk / Impact | Risks / impacts greater than the maximum permitted by HPC. |
| Reasonably Practicable | Balancing the level of risk / impact and consequences against the measures needed to control the real risk / impact in terms of money, time or effort. |
| Residual Risk / Impact | Portion of the risk / impact and consequences that remains after an assessment has been conducted, i.e. once all **reasonably practicable**, possible control measures have been applied to reduce the likelihood of risk / negative impact being realised. |
| SSW (Safe System of Work) | A safe system of work is derived from a risk assessment having being carried out to document the controls required to work safely. |
| Method Statement | The method statement shall outline the hazards involved and include a step by step guide on how to do the job safely. The method statement must also detail which control measures have been introduced to ensure the safety of anyone who is affected by the task or process, or to reduce environmental impact. |

# Process

**Initial**

**Risk**

**Residual**

**Risk**

**Identify hazards / environmental aspects**

**Assess risks / environmental impacts**

**Risks / impacts**

**HIGH**

**ACTIVITY NOT PERMITTED**

**Risks / impacts**

**LOW**

**ACTIVITY PERMITTED**

**Risks / impacts MEDIUM**

**Is the risk / impact as low as reasonably practicable?**

**Identify, record and implement risk / impact control or reduction measures**

**Periodic Review**

**During activity, carry out risk / impact assessment for any changes in:**

* **Environmental conditions**
* **Location**
* **Staffing**
* **Task / job**
* **Tools / equipment**

**Reassess risks / impacts**

**Risks / impacts**

**HIGH**

**Risks / impacts MEDIUM**

**Implement control measures**

**Yes**

**No**

**Risks / impacts**

**LOW**

**Re-evaluate methodology**

# Requirements

## 4.1 Safety and Health Risk Assessment and Controls

Risk Assessment provides a pragmatic system of identifying the hazards and determining the risks both to employees and those who may be affected by the business operation. The assessment shall ensure that suitable and sufficient controls are established and documented to control the risk identified.

From the **Management of Health & Safety at Work Regulations** HPC have adopted the Hierarchy for Risk Management (see Figure 1) to adequately minimise the risk and establish a process for working safely. This can be referred to as ERIC PD, as summarised below. HSE regulations refer to the provision of PPE as the last resort in reducing risk, often as a collective measure with other controls. The hierarchy of controls must be implemented to reduce risk as part of the risk assessment process.

|  |  |
| --- | --- |
| **E**liminate | Eliminate foreseeable risks (avoiding the hazard), or find an alternative |
| **R**educe | Reduce the harmful to the less harmful, reduce the time individuals are exposed to a risk, or reduce the number of people exposed or install enclosures to separate individuals from the risk |
| **I**nform | Provide appropriate information relative to the design, build, maintenance, workplace, key risks and residual risks. Provide relevant instruction, training, SSW / Method Statements |
| **C**ontrol | Design to address / minimise the risk, e.g. use of safe access system, consider opportunities to pre-fabricate, identify sequencing of work, use standing craneage or temporary works etc. Supervision |
|  | **Collective** - Priority to collective measures over individual protection |
| **P**PE | Personal Protective Equipment (PPE) as a last resort |
| **D**iscipline | Discipline - Mentor, retrain, understand why standards and controls are not followed |

*Figure 1 - Hierarchy of Risk Management Controls*

Risk assessment should be undertaken as early as possible to ensure risks are fully understood prior to commencing work. The risk assessment process will vary dependent upon the project / task stage and size.

Risks identified during tender or pre-contract stage are documented on SHE Considerations [HSW-FOR-HPC-084](https://northtyneside.sharepoint.com/sites/search/Pages/results.aspx?k=NTCID:HSW-FOR-HPC-084) or Project Safety and Health Assessment [HSW-FOR-HPC-085](https://northtyneside.sharepoint.com/sites/search/Pages/results.aspx?k=NTCID:HSW-FOR-HPC-085) and updated as new information becomes available.

As appropriate risk assessments will be completed as follows;

* Construction Phase SHE Plan [HSW-FOR-HPC-125](https://northtyneside.sharepoint.com/sites/search/Pages/results.aspx?k=NTCID:HSW-FOR-HPC-125)
* Project Safety and Health assessment [HSW-FOR-HPC-085](https://northtyneside.sharepoint.com/sites/search/Pages/results.aspx?k=NTCID:HSW-FOR-HPC-085)
* Site Management and set up
* Site Traffic Management
* Task risk assessments [HSW-FOR-HPC-070](https://northtyneside.sharepoint.com/sites/search/Pages/results.aspx?k=NTCID:HSW-FOR-HPC-070) will be created for works completed by HPC or agency personnel under the supervision of project / task management.
* Specific risk assessments [HSW-FOR-HPC-070](https://northtyneside.sharepoint.com/sites/search/Pages/results.aspx?k=NTCID:HSW-FOR-HPC-070) as appropriate due to the associated hazards, complexity of the works or the size and scale of the operation using
* Point of Work risk assessments [HSW-FOR-HPC-170](https://northtyneside.sharepoint.com/sites/search/Pages/results.aspx?k=NTCID:HSW-FOR-HPC-170)

## 4.2 Resource provision

HPC shall ensure adequate resources and support to enable suitable risk assessments to be completed.

The SHE Manager and Senior Managers shall ensure that this standard is fully implemented and adopted locally in all areas under their control. They shall also ensure that this process is cascaded to employees and supply chain to enable the risk management process to be implemented and complied with at the point of work, supplemented as appropriate through Point of Work Risk Assessments.

Responsibility for completion of risk assessments is a line management function. Managers shall ensure that within their area of responsibility, sufficient personnel are trained to carry out Risk Assessments to meet the needs of the business. Risk Assessments [HSW-FOR-HPC-070](https://northtyneside.sharepoint.com/sites/search/Pages/results.aspx?k=NTCID:HSW-FOR-HPC-070) shall be completed where possible with a team including operators, supervision and SHE competence. Information and guidance required to assist in undertaking a risk assessment can be obtained from the SHE Manager or Advisers.

Approval of risk assessments shall be agreed by a competent member of management prior to works commencing and shall ensure compliance with standards and checklists relevant to the activities. Point of Work risk assessments shall be agreed by the team members completing the works in additional to the approved SHE risk assessment. Line Management shall ensure that the results and controls are communicated and understood by the workforce.

Line Management shall review risk assessments whenever there is a change to the task or workplace environment, following an incident / accident or a change to legislation that will impact upon the operation and / or at regular intervals not exceeding two years.

Developed risk assessments must be complied with during the work activity by all (employees, supply chain and visitors).

## 4.3 Risk Assessment

Covid 19 Risk assessment must be in place prior to work commencing.

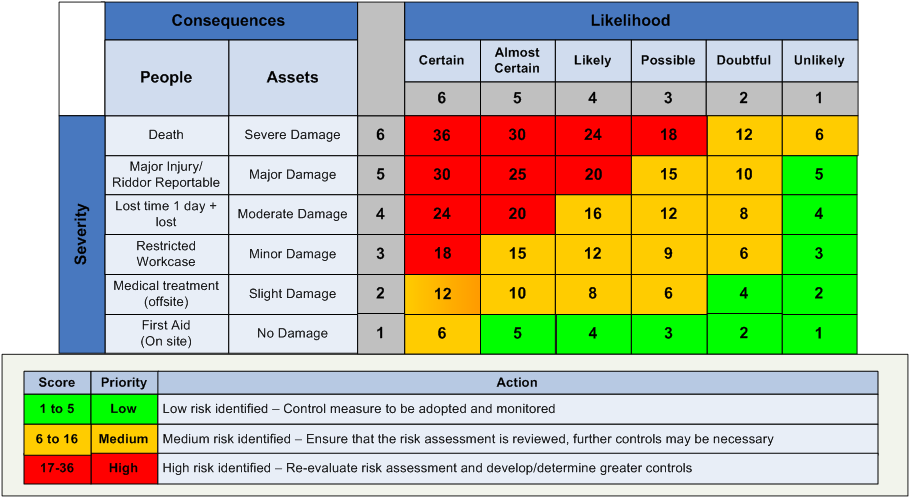
As our risk assessment process shows, the following steps are completed and summarised as follows:

* Identify the hazards
* Who might be harmed and how
* Calculate the risk of injury / ill health / asset damage from the hazard and decide if further controls are required
* Record the findings
* Implement controls and communicate the risk assessment findings
* Review the assessment regularly

It is important that employees and others affected are consulted throughout the assessment process as this will ensure that all significant risks are identified.

The likelihood / consequence and severity of the hazard being realised is evaluated using the criteria in Figure 2 – Safety and Health Risk Matrix**.** The matrix is to be used throughout HPC to determine initial and residual levels of risk acceptability.

The Risk Matrix must be used for Safety and Health Risk Assessments



*Figure 2 – Risk Matrix*

The Risk Matrix above establishes the principle of identifying risk ratings for individual risks and hazards detailed within the risk assessment. The 6x6 matrix determines acceptable and unacceptable tolerances when undertaking an activity-based risk assessment. In **ALL** events, where the residual risk scores 16-36 (High) the risk assessment **MUST** be re-evaluated, and further controls implemented. Using the risk matrix to assess likelihood x severity, a risk value can be calculated as High, Medium or Low.

For all initial risks,

* Identify and record the risk control and reduction measures. Even for low risks these risk controls can be sustained through tool box talks, monitoring etc. to ensure complacency does not grow.
* Consider, review and agree implementation of risk controls as Figure 1 Hierarchy of Risk Management Controls (ERIC PD)
* Re-assess the risk to identify the residual risk

Residual risk is:

* **HIGH** the activity is not permitted and requires further consultation to reduce to medium / low risk.
* **MEDIUM** or **LOW** the activity is permitted, and the details are communicated to the workforce

### 4.3.1 As Low as Reasonably Practicable (ALARP)

Where residual risk has been assessed as **MEDIUM**, the risk must have been considered to demonstrate the implementation of controls as low as reasonably practicable (ALARP) by:

* Estimating the potential risk reduction benefit to be gained, taking into account the risks or impacts involved in implementing the option
* Estimating the cost, time and effort involved for implementation. All costs should be considered (e.g. consequential additional downtime)
* Determining whether the risk or impact reduction measure is reasonably practicable using the Risk Matrix in Figure 2.

## 4.4 Supply Chain Risk Assessments

Relevant information about safety hazards / risks must be passed to supply chain (sub-contractors) to enable them to develop and submit their own risk assessments and method statements (RAMS).

Ensure that supply chain RAMS are evaluated for suitability and evidence of risk minimisation controls measures and approved by competent HPC staff. Supply chain RAMS shall be requested and received 7 days prior to their works commencing, allowing sufficient time for review. A relevant response shall be created i.e. Comment, evaluation, and variation via [HSW-FOR-HPC-072/073/074](https://northtyneside.sharepoint.com/sites/search/Pages/results.aspx?k=NTCID:HSW-FOR-HPC-072/073/074).

## 4.5 Specific Risk Assessments required by legislation

Where possible risk assessments should cover Manual Handling, COSHH, Display Screen Equipment, Noise and other assessments associated with the specific workplace risk assessment.

There are additional legislative requirements that require a risk assessment to be completed as a minimum e.g.;

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type** | **Legislation** | **Standard** | **Form** | **Consider** |
| Manual Handling | Manual Handling Regulations |  | HSW-FOR-HPC-094 |  |
| DSE | Display Screen Equipment | HSW-CSTD-HST-081 | HSW-FOR-HPC-091 | Premises Management |
| COSHH | COSHH | HSW-SSTD-HPC-051 | SYPOL MSDS v RA |  |
| Noise | Noise | HSW-SSTD-HPC-035 | HSW-FOR-HPC-070 | Property Management |
| WAH | WAH Regulations | HSW-SSTD-HPC-049 | HSW-FOR-HPC-070 |  |

*Figure 3 Specific Risk Assessments required by Legislation*

## 4.6 Point of Work Risk Assessments

Point of Work Risk Assessments ([HSW-FOR-HPC-170](https://northtyneside.sharepoint.com/sites/search/Pages/results.aspx?k=NTCID:HSW-FOR-HPC-170)) are created by our transient and mobile work force to support changing conditions, often for tasks that last from 10 minutes to ten days, shared and used by the transient and mobile teams, to understand additional or specific risks to their working environment not included or specific to the task risk assessment.

## 4.7 Route / Traffic Risk Assessments

Route traffic risk assessments are provided to ensure route and timings are co-ordinated to reduce risk where possible, e.g. avoidance of school crossings at school arrival and leaving times for school children.

# Environmental Aspect and Impact Requirements

## 5.1 Environmental Aspect and Impact Assessment and Controls

The environmental aspects of the HPC business and activities are categorised as follows:

* Emissions to air, land and water (pollution)
* Waste generation
* Nuisance and environmental health
* Ecology and biodiversity
* Cultural Heritage
* Use of Raw Materials
* Use of Natural Resources

HPC activities can cause environmental impact in relation to one or more of the above environmental aspects. The environmental aspect and impact assessment process provides a pragmatic system for identifying which environmental aspects apply to HPC activities and for evaluating the environmental impacts that could result in relation to the applicable environmental aspects. The assessment shall ensure that suitable and sufficient controls are established and documented to control the environmental impacts identified.

The consequences of environmental impacts are evaluated using the criteria in Figure 4 - Environmental Aspect and Impact Matrix. Environmental impacts are determined by plotting both likelihood and severity on the matrix. The appropriate severity categories should be used for the situation being assessed. The Environmental Aspect and Impact Matrix will be used throughout HPC to determine initial and residual levels of environmental impact.

The environmental impacts for any activity shall be considered **HIGH** unless **ALL** the following conditions are met:

* All relevant statutory or legislative requirements have been, or are being complied with
* An impact assessment has been carried out and the residual impacts have been brought into the **MEDIUM** or **LOW** criteria

The matrix determines acceptable and unacceptable tolerances when undertaking an activity based environmental aspect and impact assessment. In **ALL** events, where the residual impact is **HIGH** the assessment **MUST** be re-evaluated, and further controls implemented. All environmental impacts assessed as having **HIGH** or **MEDIUM** initial impactare considered ‘significant’ and control measures must be implemented to reduce the residual impact.

When assessing the environmental aspects and impacts of activities, it is possible for the impact to be positive. For example, remediation of contaminated land or the installation of bat boxes has a beneficial impact on the environment and should be identified and recorded. Where an impact is identified as having a potential environmental benefit, measures should be taken to realise that benefit. The risk and impact matrix identifies environmental benefit and potential environmental benefit as blue.

The following hierarchy of controls must be followed to reduce the impact:

* Avoid or Eliminate
* Substitute the harmful with the less harmful
* Use equipment, machinery or technology controls
* Use administrative controls such as inspections, training, signage, procedures or methods of work
* Use mitigation, compensation of off-setting

Environmental Aspect and Impact Assessment shall be completed using form [HSW-FOR-HPC-040](https://northtyneside.sharepoint.com/sites/search/Pages/results.aspx?k=NTCID:HSW-FOR-HPC-040) for verification and audit.



*Figure 4 - Environmental Aspect and Impact Matrix*

## 5.2 Resource provision

HPC shall ensure adequate resources and support to enable suitable environmental aspect and impact assessments to be completed.

The SHE Manager and Senior Managers shall ensure that this standard is fully implemented. They shall also ensure that this process is cascaded to employees and supply chain to enable the environmental aspect and impact management process to be implemented and complied with at the point of work.

Responsibility for completion of environmental aspect and impact assessments is a line management function. Senior Managers shall ensure that within their area of responsibility, sufficient personnel are trained to carry out environmental aspect and impact assessments to meet the needs of the business. Information and guidance required to assist in undertaking an environmental aspect and impact assessment can be obtained from the SHE Manager or Advisors.

Developed environmental aspect and impact assessments must be complied with during the work activity by all (employees, supply chain and visitors).

## 5.3 Environmental Aspect and Impact Assessment

Environmental aspects and impacts arising from activities shall be assessed at an operational level prior to commencement of the activity to ensure that the criteria specified in this procedure are satisfied. Environmental Aspect and Impact Assessment Form [HSW-FOR-HPC-040](https://northtyneside.sharepoint.com/sites/search/Pages/results.aspx?k=NTCID:HSW-FOR-HPC-040)

Environmental Aspect and Impact Assessments and supporting documents must be prepared by a competent person (i.e. a person with an understanding of the work activities being assessed and the environmental aspects listed in Section 5.1). Guidance can be provided by the SHE Manager. Impact assessment should be undertaken as early as possible to ensure impacts are fully understood prior to commencing work, e.g. at tender or pre-contract stage. Assessments should be updated if new information becomes available. Sufficient time must be allowed for preparation, evaluation, revision and approval of documents prior to works commencing.

Those preparing, evaluating and approving Environmental Aspect and Impact Assessments must ensure compliance with relevant procedures, guidelines, checklists and Minimum Standards and must be competent to make that assessment.

The objective of this process is to ensure that environmental aspects and impacts are identified and fully understood. The process shall be carried out by systematically identifying all environmental aspects and impacts relevant to the activity.

The impact assessment process shall follow the steps outlined in Section 5.1 and is summarised as follows:

* Identify the aspects relating to the activity.
* Take into account works / activities undertaken in abnormal (e.g. works outside agreed hours) and emergency (e.g. fire, flood or adverse weather) conditions where this may require greater control measures.
* Assess the initial environmental impact – results will be identified as:
  + **HIGH**
  + **MEDIUM**
  + **LOW**
* For initial impacts identify and record impact control and reduction measures.
* Re-assess the aspect to identify the residual impact.
* If residual impact is still **HIGH** the activity is not permitted.
* If the residual impact is **MEDIUM** or **LOW** the activity is permitted (controls must include monitoring as a minimum)

### 5.3.1 As Low as Reasonably Practicable (ALARP)

Where residual risk or impact has been assessed as **MEDIUM**, it must also be ALARP. This is assessed by:

* Estimating the potential impact reduction benefit to be gained, taking into account the impacts involved in implementing the option
* Estimating the cost, time and effort involved for implementation. All costs should be considered (e.g. consequential additional downtime)
* Determining whether the impact reduction measure is reasonably practicable using the environmental aspect and impact matrix in Figure 4

### 5.3.2 Enhance environmental benefits

Where a potential environmental benefit is identified, measures should be taken to ensure the potential benefit is realised. For example, if an opportunity to enhance existing wildlife habitat by planting a suitable mix of plant species is identified, steps should be taken to ensure this occurs where reasonably practicable.

## 5.4 Point of Work assessment

Environmental aspect and impact assessments should be reviewed at the point of work prior to starting work to ensure they take account of the conditions on site at the time the work is to be undertaken. Environmental aspect and impact assessments must be kept under regular review throughout the period of the works and amended as necessary if there are changes to:

* Environmental conditions
* Location of the activity
* Task / job
* Tools / equipment

All amendments to environmental aspect and impact assessments must be recorded and communicated to all staff undertaking the works.

Environmental aspect and impact assessments should also be reviewed if control measures are identified as inadequate by inspections / audits / investigations. These reviews must be recorded.

## 5.5 Periodic review

Environmental aspect and impact assessments and implemented control measures must be reviewed as a minimum every six months or as required following change or an environmental incident. These reviews must be recorded and should include changes to:

* Legislation

Audits shall be completed by SHE Manager/Advisors as documented within Audit, Inspection and Monitoring Standard [HSW-SSTD-HPC-008](https://northtyneside.sharepoint.com/sites/search/Pages/results.aspx?k=NTCID:HSW-FOR-HPC-008)

## 5.6 Supply Chain Environmental Impact Controls

Relevant information about environmental aspects and impacts must be passed to supply chain (sub-contractors) to enable them to develop their own risk assessments and method statements (RAMS) and ensure that their processes and documentation address these issues.

HPC must ensure that supply chain RAMS are evaluated for suitability and evidence of environmental impact control measures and are reviewed by competent staff. Supply chain RAMS shall be requested and received 7 days prior to their works commencing, allowing sufficient time for review. A relevant response shall be created i.e. Comment, evaluation, and / or variation via [HSW-FOR-HPC-072/073/074](https://northtyneside.sharepoint.com/sites/search/Pages/results.aspx?k=NTCID:HSW-FOR-HPC-072/073/074).