

Point of Work Risk Assessment

Introduction

The laws, codes of practice and standards which affect safety requirements and risk assessment in the refrigeration, air conditioning and heat pump industry are constantly evolving. Written proof of a competent, meaningful assessment is essential to prove compliance with these requirements. The HSE states that everyone is responsible for assessment and mitigation of risk, for their personal safety, for safety of those in the immediate vicinity and for the safety of the general public or anyone who they employ to do work on their behalf. All risk assessment must be site specific in order to take into account the potential risk identified each time, at each site, for each system and for the work that it is proposed to be carried out. Where the work is of an occasional or non-routine nature assessment may be required in addition to the regular documented reports created by the building owner or operator. This guidance note is designed to prompt all of those involved in operation, service and maintenance activities to review current practices. It is not and cannot be comprehensive.

Management of Health and Safety at Work Regulations 1999

Several UK laws, including the Management of Health and Safety at Work Regulations and the Provision and Use of Work Equipment Regulations require system owners to make assessments of the risks associated with their operations, including periodic reappraisal of the risks and reassessment after any significant change of circumstances. The Dangerous Substances and Explosive Atmosphere Regulations used to be considered to be only relevant to flammable materials but under changes to the Classification, Labelling and Packaging of Chemicals Regulations in 2015 it is now necessary to follow the DSEAR risk assessment requirements for “any substance classified within a physical hazard class in the CLP Regulation”. This includes hazard class H280 – Gases under pressure – which means that almost any substance used as a refrigerant in a vapour compression system requires the end user to complete a DSEAR risk assessment.

Quality Management Systems

At the same time the International Standard on Quality Management Systems, ISO 9001, has adopted a greater emphasis on risk, taking the definition for ISO9000:2015 that risk is “the effect of uncertainty”. Any business that is governed by the requirements of an ISO9001 Quality Management System will have had to concentrate much more on the minimisation of risk than before – certainly to a greater extent than was required by the 2009 version of the standard. This in turn has created a greater need for assessment.

Environment and Safety Standards

Other international standards, including BS EN378, are following a similar path, with the adoption of flammable refrigerants being recognised as a key motivation for a risk-based approach to system design.

There has never been a more important time to be on top of the risk assessment process. Recent court cases and incident investigations have strongly emphasised the need for building owners to take ownership of the risk assessment process. The assessment needs to be meaningful and specific, and properly documented. It also needs to be used in practice, not just filled out and filed away.

Point of Work Assessment of Risk

Where a maintenance or service technician is engaged in work on a piece of equipment it is likely to be beyond the scope of the regular risk assessment covering normal use of the plant. In this case the employer of the technician should assess any particular risks that are likely to be encountered, but the technician should also make an assessment of the situation on site at the moment that the work is due to be done. Many circumstances can change from one day to the next, for example lighting that was previously adequate may be defective and need repair, or the condition of the work area may have been affected by bad weather or other work in the vicinity. This means that an assessment of the risks at the point of work should be done at the start of each day and at any point during the work when something significant changes. For example a safe escape route may be identified at the start of the day but is later cordoned off due to other work in the area, resulting in a need to change the emergency plan for the work in hand. A leaking roof might make a previously safe access passage more hazardous due to water on the floor if it starts raining, or the nature of the work being done may change as the day progresses. If there is a shift change and new personnel come onto the job then they should make their own assessment of the risks at the point of work, not rely on the previous assessment that is several hours out of date by the time they start work. A single assessment can cover a small team who are working together, but if the work takes place in several locations, for example in the plant room and up in the roof void then a separate assessment should be completed for each location.

How to use this template

A Point of Work Risk Assessment (POWRA) should be completed for any service or maintenance activity at the start of each shift or whenever circumstances change significantly. It should be completed by the people who will be doing the work and in the place where the work will be done. It will result on one of two outcomes: either proceed with caution to do the work as planned or else withdraw in order to deal with additional hazards that were unexpected and have not been included in the method statement for the work. The IOR Technical Committee is providing this Point of Work Risk Assessment checklist to assist those assessing risk at the point of work to highlight some of the considerations they need to take into account before they commence any work activity on a system – including reviewing the more detailed Risk Assessment for the activity they plan to carry out. It is restated that this is not and cannot be comprehensive and does not replace current risk assessments developed for use by companies, because all risk assessment must be site specific in order to take into account the potential risk identified each time, at each site, for each system and for the work that it is proposed is to be carried out.

For more guidance on your health and safety requirements refer to:

<http://www.hse.gov.uk/pubns/hsc13.pdf>

<http://www.hse.gov.uk/pUbns/books/l21.htm>

<http://www.hse.gov.uk/fireandexplosion/dsear.htm>

<http://www.hse.gov.uk/chemical-classification/legal/clp-regulation.htm>

<https://www.iso.org/publication/PUB100426.html> Risk Management

<https://www.iso.org/standard/62085.html> Quality Management

<https://shop.bsigroup.com> for BS EN378:2016 Refrigerating Systems and Heat Pumps. Safety and Environmental Requirements

www.ior.org.uk/buy-publications IOR Safety Codes of Practice for various refrigerant groups (free to IOR members) provides guidance on interpretation of BS EN378 and other relevant Regulations and Standards.

Abbreviations used:

RA – Risk Assessment

MS – Method Statement

PTW – Permit to Work

PPE – Personal Protective Equipment

RPE – Respiratory Protective Equipment

The tables on pages 3 and 4 are adapted from CITB Point of Work Checklist part of the Construction Site Safety (GE 700) publication series and available at www.citb.co.uk/publications and reproduced with their permission.

Both tables are also available as an excel spreadsheet to download from www.ior.org.uk

Disclaimer

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<h2 style="text-align: center;">Point of Work Assessment of Risk for Refrigeration, Air Conditioning and Heat Pump Systems</h2> <p style="text-align: center;">(please read introductory text accompanying this template which forms part of the IOR Guidance Note)</p>					
Client / Site		Project Title			
Contract No.		Location			
Part 1 – Stop					
Before you start					
Are you authorised and qualified to undertake the work.	Yes	No	N/A	Additional Safety Assessment (continue on separate sheet if required)	
Are you at the correct plant / component?					
Have you done the job before if not do you know what you are doing?					
Do I know how to get help or where to go in an emergency?					
Do you have Risk Assessment (RA), Method Statement, Hot Work or other Permit to Work and have you signed on to them?					
If you are working to Generic RA's please list the applicable ones below or overleaf:					
Is the client aware of your work?					
Does someone know where you are working?					
Do you have the right PPE (Personal protective equipment) and / or Respiratory Protective Equipment for the job?					
Are your test meters (electrical/gas) in calibration?					
Ammonia work - is there a shower, hose or buckets of water nearby?					
Work equipment – are you trained in its use?					
If working with flammable refrigerant have you identified the extent of zoning, eliminated relevant ignition sources, ensured adequate ventilation and suitability of equipment?					
Are power tools and leads and plant tested?					
Are scaffolds and ladders inspected (access safe)?					
Is lifting equipment inspected?					
Have you inducted the contractors?					
If answer is 'No' to any of the above, take required action or report to your supervisor. If in doubt ask!					
Safety and Health Assessment (if the hazard is present tick the box)					
Falls from height	Slips, trips or falls on the same level	Temperature (high/low)		Hazard (circled from Part 2)	
Fragile surfaces	Entry into a confined space	Adverse weather			
Falling or flying objects	Fumes	Risk to you from the work of others			
Chemicals or harmful substances	Noise	Risk to others from your work			
Heat, fire or explosion	Vibration	Stored energy or insecure load			
Asphyxiation or drowning	Electricity	Traffic or moving vehicles			
Contact with stationary object	Manual handling	Asbestos present			
Object overturning or collapsing	Poor lighting	Other risk identified (state overleaf)			
If required, you must have a rescue plan in place. Provide brief details below or overleaf. (You must always be able to provide a way of safe escape in the event of something going wrong).					
Circle any ticks for hazards that are significant and for which there are no (or inadequate) controls. If you have circled any hazards, Part 3 needs to be completed and additional controls put in place before work commences.					
Part 2 - Think					
Part 3 - Act					
Part 4 - Review					
Date		Time	Signature of employer or self employed person		
Name					
Are there any lessons for next time?					
Has the work created any new hazards					
If you have answered 'Yes' to either of these questions, make a brief note below and tell your supervisor.					
Yes <input type="checkbox"/> No <input type="checkbox"/>					
Yes <input type="checkbox"/> No <input type="checkbox"/>					

Point of Work Assessment of Risk (continuation sheet for further details)			
Client / Site	Contract No.	Name	Project Title Location Date