

Competition Organising Partner: Datateam Business Media Ltd

Competition Skill: Refrigeration skill Competition

Data Protection Statement	
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SkillFRIDGE	Risk Assessment
Venue: NEC BIRMINGHAM	Date: 18-23 November 2019
	dated 29 September 2019 (M Forsyth)
Written by Project Manager: Mark Forsyth	

Key to Shading	
25	Level of risk is unacceptable. High
12	Level of risk is tolerable. Seek means Of reducing the level of risk. Medium
6	Level of risk is acceptable. Low

Risk Factor

The Risk Factor for any given hazard is based on two distinct areas that should be included when producing your Risk Assessment. The likelihood of something occurring and, should it occur, the severity of the injury.

Likelihood x Severity = Risk Factor

For example: A person climbing an unsupported ladder that is in poor condition. The likelihood that something may happen is high and the resulting injury should they fall could be major. Using the table (Risk Matrix) on the right:

Very Likely (8) x Major Injury (6) = 48

This figure falls into the darker shaded area indicating that the level of risk is unacceptable and as a result action is required to either eliminate or greatly reduce the hazard level.

A key to the shaded area and the required actions can be found in the table below.

A breakdown of the Likelihood factors can be found in the lower right table.

Note: The definition of a 'Major Injury' will be as is defined in **RIDDOR**.

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Risk Matrix		CONSEQUENCE or SEVERITY				
		Single Death	Major Injury	3 day Injury	Minor Injury	Near Miss
L I K E L I H O O D	Very Likely 8	25	20	15	10	5
	Probable 6	20	16	12	8	4
	Possible 4	15	12	9	6	3
	Unlikely 2	10	8	6	4	2
	Very Unlikely 1	5	4	3	2	1

Index

Risk Matrix	Page: 1
Key to Abbreviations	Page: 2
Risk Assessment	Page: 3

Key to abbreviations used:

BD:	Breakdown period
BU:	Build-up period
C:	Contractor
CoSHH:	Control of Substances Hazardous to Health
JG:	Judge
DDA:	Disability Discrimination Act
ExP:	Experts
AOS:	All Persons On-Site
OWN:	Own Staff
COM:	Competitors
CON:	Contractors
VEN:	*venue*
EE:	Emergency Exit
EHO:	Environmental Health Officer
F&H:	Food & Hygiene
FLT:	Fork Lift Truck
FM:	Floor Managers
HAV:	Hand and Arm Vibration
H&S:	Health & Safety Officer
MHE:	Mechanical Handling Equipment
ORG:	Organiser
TA:	Technical Advisor
COP:	Competition Organising Partner
RA:	Risk Assessment
Sfairp:	So far as is reasonably practicable
VS:	Visitors/Public
YAH:	You Are Here

TASK or ACTIVITY	HAZARD	WHO MIGHT BE HARMED	RISK LEVEL	CONTROL MEASURES PUT IN PLACE	NEW RISK LEVEL	Who to action?
Handling compressed gases	Manual handling	COM, OWN	6	Use of trolleys to manoeuvre and store gas bottles	2	TA, JG, Exp
Bending pipework and installing pipework	Manual handling	COM, OWN	6	Manual handling training All Competitors are competent people Safe systems of work All Competitors are competent people Max height 2.0 metre	2	TA, JG
Use of power tools	<ul style="list-style-type: none"> Electric shock Burns Hand and Arm Vibration 	COM, OWN	4	Equipment to be new or PAT tested Use of battery drill for non-impact drilling	2	TA, JG
Wiring on electrical bench	<ul style="list-style-type: none"> Electric shock Sharp tools Slips and trips 	COM, OWN	6	No live working - wiring is not energised Safe isolation to be in place All Competitors are competent people	2	TA, JG
Electrical testing using multi meter and mega meter	<ul style="list-style-type: none"> Electric shock Burns 	COM, OWN	6	Inspect tool for damage on casing and test the instrument to ensure integrity prior to its use. One to one supervision of competitor testing earth and continuity by competent person.	2	TA, JG
Flame brazing using Oxygen and Maxigas and/or MAPP gas 930ml oxygen cylinder size 610ml maxigas cylinder size Fitted onto hand held carriage	<ul style="list-style-type: none"> Burns Fire Explosion Fumes 	COM, OWN	12	Maximum volume size 930ml. Appointed person to carry out inspection of all blow torch regulators, fluid lines, and mixing chamber for signs of defect prior to start of each day. Leak test all connections from regulators through to mixing chamber with suitable leak test fluid. DO NOT use oil on any threads especially Oxygen. Always use cylinder rack to store oxygen and maxigas cylinders. MSDS & COSHH assessments will be within the skill area, all competitors will be made aware of the use and have demonstration prior to use. PPE to be worn: full hand and arm protection, suede/leather gloves and safety glasses used for lighting up and during all flame operations. No flame brazing to be carried out next to wood or flammable areas with protection i.e. protective matt or wet rag or cool gel fluid. Judges constantly supervise the brazing activity. Wet rags, cool gel and fire extinguisher to be available. Venue extract ventilation will be in place.	4	TA, JG
Flame Brazing using Safeflame Unit Dimensions 61 x 45.5 x 50 Weight 42 Kg	<ul style="list-style-type: none"> Burns Fire Explosion Fumes Back strains 	COM, OWN	9	Equipment to be tested by competent person prior to use by competitor. All hot works will require a Hot Work Permit from the Venue Host. Water & Dry Powder fire extinguishers will be positioned within each competitor area All Competitors have been trained in the use of the equipment. PPE to be worn: full hand and arm protection, suede/leather gloves and safety glasses used for lighting up and during all flame operations. Brazing operations to be monitored by competent person (judge) at all times. Venue extract ventilation will be in place. Service ducts to be taped up to prevent hot metal falling into service ducts Heat protection barrier to be used where brazing is near any flammable surface	3	TA, JG

Electrical wiring installation	<ul style="list-style-type: none"> Manual handling Minor Cuts 	COM, OWN	6	No live working No open bladed knives used for wire stripping	2	TA, JG
Using Nitrogen for purging and Pressure test	<ul style="list-style-type: none"> Flying objects Explosion 	COM, OWN	8	All equipment is dry run by competent person prior to use by competitors. Competitors are trained to use the equipment Activity to be supervised by Judges at all times. Nitrogen cylinders secured to workbench using chains or ties. Pressure regulators suitable for maximum test pressures to avoid over pressurising system. Flow regulators to be used for purging nitrogen during brazing operations Nitrogen hose line to include metal cord for strength during pressure testing Pressure test to be reduced to zero if the area is unattended during break times. PPE – safety glasses and gloves will be required by all competitors	3	TA, JG, ExP
Using vacuum pump to evacuate system	<ul style="list-style-type: none"> Electric shock Dust Flying objects 	COM, OWN	8	Equipment 240v power lead to be PAT tested Equipment to be dry run by competent person prior to use by competitor. Vacuum pump cannot be left in operation unsupervised at break times.	3	TA, JG, ExP
Handling refrigerant to charge system	<ul style="list-style-type: none"> Escape of refrigerant to environment Refrigerant burns Manual handling Back strains 	COM, OWN	9	All competitors to be trained to Fgas City & Guilds category 1 or equivalent in refrigerant handling and use safe systems of work at all times. Service manifold gauges to be dry run prior to use. Use correct procedure and safe systems of work at all times. Inspection of safe system & set up to be made by judges prior to charging refrigerant Supervision by judges at all times during refrigerant charging All cylinders to be closed and capped off on completion Correct lifting procedure to be followed when handling cylinders	3	TA, JG, ExP
Commissioning systems	<ul style="list-style-type: none"> Electric shock Refrigerant burns 	COM, OWN	9	RCD to be fitted to live test rig equipment. No covers to be left open when system is live/active/energised by power. No live working to change components. Measuring voltage and current to be witnessed by judges.	3	TA, JG
Refrigerant recovery	<ul style="list-style-type: none"> Escape of refrigerant to environment Refrigerant burns Manual handling Electric shock Back strains 	COM, OWN	9	Equipment 240v power lead to be PAT tested All competitors to be trained to Fgas City & Guilds category 1 or equivalent in refrigerant handling and use safe systems of work at all times. Service manifold gauges to be dry run prior to use. Inspection of safe system & set up to be made by judges prior to recovering refrigerant. Supervision by judges at all times during refrigerant recovery All cylinders to be closed and capped off on completion Correct lifting procedure to be followed when handling cylinders	3	TA, JG
De commissioning systems	<ul style="list-style-type: none"> Escape of refrigerant Manual handling Electric shock 	COM, OWN	8	Safe isolation to be made competitors and checked by judges to ensure absence of potential difference. All de-commissioning monitored by judges All competitors to be trained in Fgas refrigerant handling	2	TA, JG, ExP

TASK or ACTIVITY	HAZARD	WHO MIGHT BE HARMED	RISK LEVEL	CONTROL MEASURES PUT IN PLACE	NEW RISK LEVEL	Who to action?
Fire evacuation	<ul style="list-style-type: none"> Burns Smoke inhalation Slips trips and falls 	AOS	20	<p>Area is continually monitored to ensure debris is removed on a regular basis. See it, Say it, Sort it will be used to ensure workplace behaviour is professional and area is kept tidy. Personnel sign in and out to ensure safety of all persons. Escape plan to be covered during induction. A designated fire assembly point will be discussed during induction. Water and Dry Powder fire extinguishers to be placed in and around the skill area in an appropriate location Fire escape routes are clearly marked in venue. Responsible persons for ensuring all staff are evacuated in the event of a fire.</p>	2	TA, ExP, JG, FM, HSO
Housekeeping	<ul style="list-style-type: none"> Slips trips and falls 	COM, OWN, VEN	6	The skill area must be kept clean and clear and all spillages dealt with immediately. All designated walkways to be kept clear of obstructions.	2	TA, ExP, JG, FM, HSO
Eating food in the skill area	Food Poisoning, choking	AOS	6	Food to be kept in correct conditions and in-date. Eating within the skill area will be controlled and kept to a minimum. Onsite emergency responders available.	2	TA, ExP, JG
Drinks in the skill area	Scalding/Slipping, electrical hazard	AOS	6	Drinks not to be left in hazardous areas including work area and anywhere with electrical devices; spillages to be cleared up immediately.	2	TA, ExP, JG

Further Actions Required on unacceptable risks

Event: skillfridge competition

Details of unacceptable risk:
Actions to be Taken:
Person Responsible for the actions:
Target date for completion:
Action Completed: Yes / No
Risk Re assessed: Yes / No

Risks Acceptable:	<input type="checkbox"/> YES	<input type="checkbox"/> NO
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Signed: _____

Date: _____