

## RISK ASSESSMENT FORM

STRTRA - 08

Dept. Name:	Engineering Workshop	RA no*:		Rev No.*		Date:	
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**Work / Activity Details:** . Operation of Workshop Diesel Air Heater

**Sect.1. Risk Assessment Table**

Sub Task/Activity	Hazards Identified	RA Criteria (People/Environment/Property/Process)	Consequences	Existing Control Measures	Severity** Rating (A) of consequences with existing controls	Likelihood** Rating (B) (Refer Table in Sect.2)	Risk Level** (A X B)	Additional Controls (if any)	Person Responsible	Agreed time frame	New Severity Rating(A1)	New Likelihood Rating(B1)	Residual Risk (A1 X B1)	Decision to
Heater inspection	Visual defects	Equipment	Non functioning/damage	Inspection to be carried out prior to use	2	2	4	Follow instruction manual	HoD	1 hr	2	1	2	Y
Heater start up and operation	Fail to start	Equipment	Non function	Inspection and fuel level to check	2	2	4	Fill oil tank	HoD	1 hr	1	1	1	Y
Ensure area round heater is clear of flammable materials	Fire	Equipment/Property	Damage to property /Equipment	Ensure area of approx. 1.5m surrounding the heater is free of materials	3	3	66 9	Clear surrounding area of all combustible materials	HoD	1 hr	2	2	4	Y
Check for proper combustion	Poor combustion	People	Excessive carbon monoxide in air	Ensure adequate ventilation of workshop	3	3	9	Open door for additional ventilation as required. See below.	HoD	10 min	2	2	4	Y
Check for proper operation	Not functioning properly	Equipment	Poor operation / damage to heater	Checks to be carried out when heater has started and at frequent intervals till shut down	2	2	4							Y

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- \*Numbering guidance: a. New RA No. if it is a fresh case. b. Old RA No. with new date if no change is hazards. c. Old RA No. inserting Rev. No & new date if there are additional Hazards
- \*\* Refer RA Matrix (Sect.2 Table 1,2,3, of this Form for Hazards / Consequences Evaluation (Likelihood/Severity) to People, Environment and/or Property / Commercial aspects as applicable to arrive at ratings of (A) & (B).
- \*\*\* Refer Risk Level table (Sect.2 Table 4 of this form)). .If results are either in yellow or red consider additional measures to mitigate the risk.
- ‘Contingency Plans’ to limit the impact of unplanned occurrences/ failure of control measures to be discussed and recorded in the section below.
- During review of the RA process, if scope for improvement of the documented HSE procedure for the operation/activity is identified, same should be recorded in the comments section below.

**Contingency Plans :**

**The instruction manual refers to ventilation as follows**

Risk of indoor air pollution. Use heater only in well ventilated areas. Always provide fresh air opening in the heated space of at least three square feet (2800sq.cm) for each 29kW/hr of heater output. Provide a larger opening if more heater will require a two-car garage door raised 15.24cm (6 inches) - a single-car garage door raised 15.24cm (9 inches)

**Comments :**

**All control measures to be carried out prior to use.**

**Signed:**

\_\_\_\_\_

**Date**

**Reviewer’s Comments:**

\_\_\_\_\_

**Signed:**

\_\_\_\_\_

**Name / Position / Signature**

**Date**

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SECT 2: Risk Ranking Matrices & Risk Level Tables

TABLE 1 : - PEOPLE			(Severity of)Consequence-A				
			FAC: First Aid Case	LTI: Lost Time Incident	Hospital: Injury requiring Hospitalization or LTI >24hours	Perm Disability: Injury resulting in permanent disability	Fatality: Injury resulting in death
Likelihood Of Consequence)-B	Rating		1	2	3	4	5
	Happened several times per annum in a location/ship (Very likely)	5	5	10	15	20	25
	Happened several times per annum within the company (Likely)	4	4	8	12	16	20
	Happened within our company at least once (Unlikely)	3	3	6	9	12	15
	Heard Within the industry (Highly unlikely)	2	2	4	6	8	10
	Never heard within the industry (Almost NIL chances)	1	1	2	3	4	5

TABLE 2: PROPERTY / COMMERCIAL			(Severity of)Consequence-A				
			GBP 10. Damage to property/equipment	GBP 50. Damage to property/equipment	GBP 100. Damage to property/equipment	GBP 500. Damage to property/equipment	GBP 1000 Damage to property/equipment
Likelihood Of Consequence)-B	Rating		1	2	3	4	5
	Happened several times per annum in a location/ship (Very likely)	5	5	10	15	20	25
	Happened several times per annum within the company (Likely)	4	4	8	12	16	20
	Happened within our company at least once (Unlikely)	3	3	6	9	12	15
	Heard Within the industry (Highly unlikely)	2	2	4	6	8	10
	Never heard within the industry (Almost NIL chances)	1	1	2	3	4	5

TABLE 3 :  RA - MATRIX FOR MOC			(Severity of) Consequence (To be defined)#* - A				
			Negligible	Minor	Moderate	Major	Catastrophic
Likelihood Of Consequences-B	Rating		1	2	3	4	5
	Very likely	5	5	10	15	20	25
	Likely	4	4	8	12	16	20
	Unlikely	3	3	6	9	12	15

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	Highly unlikely	2	2	4	6	8	10
	Almost NIL chances	1	1	2	3	4	5

Table 4: Risk Levels	Meaning	Action
1 - 7	<b>Tolerable</b>	Risk is acceptable and job can be undertaken. Consideration may be given for further reduction of risk if reasonably possible. However, in case value is above 4, continuous monitoring is required to ensure existing controls are maintained.
8 - 11	<b>Moderate</b>	Efforts are to be made to reduce the risk by placing additional controls with an aim to bring down Risk Level to Green zone.
12 - 25	<b>Substantial</b>	Efforts are to be made to reduce the risk to green/yellow rating by placing additional controls and taking appropriate action as defined above. However, If the final risk level is in the red zone then no job shall be undertaken. Until the final risk level is reduced so that it is no longer in the red zone the job shall not be undertaken."