



## STRUCTURAL STEEL ERECTION

**RA NO**

**DATE**

<b>H.T.I Score</b>	10	High Risk-Constant Supervision
<b>Contract</b>		
<b>Persons involved in RA</b>	<b>Name</b>	<b>Signatures</b>
Foreman		
Second Foreman		
Safety Officer		
Representative		

<b>Documentation Required</b>	<b>Training Required</b>	<b>PPE and Safety Equipment Required</b>
OHS Act and Construction Regulations	General induction - all employees	Overalls
Appointment 6(1)	Toolbox talks	Non-slip Safety Footwear
Appointments 6(2)	First Aider	Hard Hat
Appointment First Aider	Use of Safety Harness	Gloves
Competency First Aider	Erecting structural steel	Safety Harness
Emergency Plan		Life lines

	<b>Activity Steps</b>	<b>Hazards and Risks</b>	<b>Preventative Measures</b>	<b>Rating</b>
1	Competency of steel erectors	Erectors not being competent or used to working at heights may fall causing injury to all parts of body, possibly fatal.	Supervisor to induct steel erectors and their assistants in the safe-way to erect the steel and how to use their personal protective equipment.	11
2	PPE	Not wearing personal protective equipment could cause injury to all parts of body, possible fatality	Erection team is to use the following personal protective equipment at all times: Overall, Hardhat, Harness with double lanyards and shock absorber, safety shoes with non-slip soles for structural steel work, gloves (if required). The use of harness is to be demonstrated to erection crew.	11

3	Use of lifelines	Lifelines not properly installed could cause injury to all parts of body, possible fatality	Lifelines are to be used and must be approx. 1 metre above working area of erectors for them to anchor their lanyards onto.	11
		Erectors not hooking themselves properly to lifelines or steel structure causing employee to fall could cause injury to all parts of body, possible fatality	Supervisor to check that lifelines has properly been installed and secure. One lanyard must be hooked at all times. Do not disengage a lanyard until the other has been hooked.	11
4	Tools used by erection crew	Tools not thonged may fall and worn spanners may slip causing erector to lose his balance and fall. Injury to hands and all parts of the body, possible fatality due to fall	Tools used by erection crew must be in good condition and thonged to avoid dropping them during use. Worn spanners may not be used.	11
5	Hoisting or lowering items	Materials or tools might drop onto person below when dropped from an elevated position. Injury to head, arms or legs.	Do not drop any material or tools from the top of the structure. Use ropes attached to a bucket to hoist or lower items as required.	8
6	Areas below working area	Materials or tools might drop onto person below when dropped from an elevated position. Injury to head, arms or legs.	All areas below where work is being done at an elevated level should be barricaded to restrict entry by any person. Tape to be yellow & black in colour indicating no entry at all. Safety signs indicating workers above - falling objects to be displayed.	11
7	Building rubble, stones or any materials at ground level	Injury of employee that falls might be aggravated if he falls on top of materials, stones, bricks, equipment or any other object.	No building rubble, stones or any materials are to be stored at ground level below workers working at an elevated position. The ground must be free of any objects and debris.	8
8	Hoisting steel with crane	Persons walking underneath load being hoisted may be seriously injured if the load should fall	Banksman/rigger to make sure that no persons are under load being hoisted. He should be equipped with a whistle to warn all employees that a load is about to be lifted and that they should stand clear.	8

		Contact of load with structure may cause damage to structural elements or workers to fall causing injury to all parts of body, possibly fatal.	To control the movements of structural elements hoisted, guide ropes are to be used and crane operator instructed to be aware of keeping the load at least two metres away from the structure and to move the load very slowly when it comes into proximity of the workers on the structure.	11
9	Adverse weather conditions	Workers may slip on wet surface causing them to fall. Workers struck by lightning.	No erection of structure is to take place during adverse weather conditions, i.e. Winds above 45 km/h, rain, lightning	11
10	Sequential erecting of structure	Collapse of structure possible if sequence of erection is not followed by erection team.	Sequence of erecting structural elements as required by the supervisor is to be adhered to at all times by all members of the erection crew. Competent supervisor to monitor	11
11	Grouting of base plates	Structure not being on firm base could cause collapse resulting in property damage or injuries.	Grouting of base plates is to be done as soon as possible after erection of structure.	11
12	Painting steel work	Erector slipping on a painted section causing him to fall causing injury to all parts of body, possibly fatal.	Painter's painting steel work is not to paint on same level where erection team is working.	11
13	Emergency procedure	Hanging in the air for more than two minutes may cause internal injury to employee.	An emergency procedure is to be in place to retrieve an employee that has fallen from the structure and hanging from a lanyard. Allowable time to retrieve is two minutes.	11