



**DALMIA CEMENT (B) LIMITED – CEMENT PLANT  
ARIYALUR  
CIVIL DEPARTMENT MANUAL**



Issue No. 02	Rev. No: 00	Effective Date: 01.11.2019	SOP/CIVIL/002
Issued By: M.R		Approved By: HOD – CIVIL	
SOP FOR REINFORCEMENT			

**Scope** : This SOP is applicable to Safe working for placement of reinforcement work for various heights.

**Responsibility** : Concern contractor & Workers.

**Accountability** : Civil-Section In charges.

**PPE:**

1. Safety helmet,
2. Safety shoe,
3. Mask.
4. Safety harness.
5. Hand gloves
6. Safety goggles.

**Tools:**

1. Hammer
2. Ring Spanner set
3. Rebar cutting machine
4. Rebar binding& Bending tools
5. Nails

**Hazards:**

**Risks associated**

Fall from heights  
Form work collapse  
Electrical hazards.

**Mitigating Measures**

safety nets  
Proper inspection & follow the standards  
Fit ness of electrical equipments



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**Training needs:**

1. Emergency preparedness
2. Work at height
3. PPE,s training

**Procedure:**

Before stating the Fabrication & Fixing of rebar.

1. Necessary work permits has to be obtained
2. All workmen are wearing safety PPE & awareness
3. To ensure proper supervision to be made available
4. Adequate staging and platforms is to provide
5. Inspection for the form work should be done by section incharge/competend personal
6. Rigidness of formwork –
7. No nail should protrude from support
8. Good for work tag has to be fix
9. Necessary stair case arrangement should be made to reach the work place at height
10. Rebar cutting & bending to be done with the proper work man
11. Shifting and lifting the re bar has to be carried out by proper supervision
12. Reinforcement rod has been placed as per drawing
13. The reinforcement rods are firmly held in position
14. Any reinforcement sharp edge should not project outside or working area.
15. The approach area to be clear from all encumbrances and platforms if any, has to have proper handrail as per the standards

**Emergency / Emergency Shut OFF:**

1. If anybody fall from height, inform to the Safety department or Call Emergency number 3108/9865152222/9750963761.
2. If any shaking in the form work /scaffolding, then stop the work and inform to the section in charge.
3. If any injury is there, give First aid and inform to the Safety department or Call Emergency number 3108/9865152222/9750963761

**Records/Annexure:**

1. JSA as enclosed below.



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**JOB SAFETY ANALYSIS :( JSA)**

<b>Job Safety Analysis</b>	Job: This SOP is applicable to Safe working for Fabrication & Fixing of reinforcements(REBAR) for various heights	Date:	Analysis by: M.I.Shameem Sufiyan	Reviewed by: S.Chandra Bose
Title of employee doing job: Concern contractor & Workers	Supervisor: Section In charge	Department: Civil	Section: plant area	Approved by: S.Chandra Bose
Req'd/recommended PPE: SAFETY HELMET, SAFETY SHOES, NOSE MASK, safety goggles. Safety harness,				
Sequence of Basic Job Steps	Potential Hazards	Recommended Safe Job Procedure	What Could Go Wrong	Corrective Action
Re bar fabrication & placing	<p>Collapsing of the scaffolding</p> <p>Height fear</p> <p>Nails</p> <p>Electrical hazards.</p> <p>Handling of rebar.</p> <p>Projection of reinforcement(sharp edge)</p>	<p>To ensure the Good for work tag has to fixed the work place(Green board)</p> <p>Vertigo test to be done who is going to do the job.</p> <p>Proper housekeeping at the work place. Nails should not be protrude</p> <p>To ensure the fitness of electrical equipment (Re bar cutting &amp; Bending machine) and damaged wires should not used for connection of tools &amp; light fittings etc</p> <p>Proper hand Gloves at the time of re bar cutting bending &amp; tieing</p> <p>To ensure any sharp edge not projected in working area</p>	<p>Fall from heights- major injury or fatality</p> <p>major injury or fatality</p> <p>Major injury</p> <p>Major injury</p> <p>Electric shock / fatality</p> <p>Major injury</p> <p>Major injury</p>	<p>To ensure the competent supervisor /contractor while the time of the job.</p> <p>Hand rails provided the work place.</p> <p>Use proper safety Shoe &amp; Hand Glove.</p> <p>Use safety net and barricade surrounding area of the work place</p> <p>Use proper safety Shoe &amp; Hand Glove.</p> <p>Proper supervision.</p> <p>Use safety net and barricade surrounding area of the work place</p> <p>Ensure the fit ness for Equipment.</p> <p>Ensure the weight limitation.</p> <p>Ensure the competent person to engage the lifting work.</p> <p>Ensure the area (Lifting surrounding area) to be barricaded.</p> <p>Use safety net around the work place</p> <p>Educated the workman through training or PEPTALK and follow the SOP while working.</p>