



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



Issue No. 02	Rev. No: 00	Effective Date: 18.02.2022	SOP/CIVIL/19
Issued By: M.R		Approved By: HOD (Civil)	
SOP FOR CONCRETE SLAB CUTTING WORK			

**Scope** : This SOP is applicable to Safe working for concrete slab cutting work at various heights.

**Responsibility** : Concern contractor & skilled manpower

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

**PPE:**

1. Safety helmet
2. Safety shoe
3. Nose mask
4. Safety full body harness
5. Hand gloves
6. Safety goggles
7. Gum boot

**Tools:**

1. Concrete breaker machine
2. Cutting machineries & consumables like floor saw, wall saw, wire saw, core cutter, etc. as applicable
3. Electrical gadgets like approved extension boxes with cables, etc.
4. General hand tools like drilling machines, hand cutting tools, spanners, hammers,
5. Rigging equipments like chain block, slings, D-shackles, etc. as applicable
6. Lifting machineries like hydra, crane, monorail, EOT, etc. as applicable

**Hazards:**

**Risks associated**

Fall from heights

Injury to person

Electrical hazards

**Mitigating Measures**

Ensure DCBL height work & scaffolding standard with PPEs

Only experienced skilled contractor/manpower shall be deployed

Ensure Fitness certificate for all electrical operated equipments



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**Training needs:**

1. Emergency preparedness
2. Work at height
3. Scaffolding

**Procedure:**

1. Necessary work permits have to be obtained
2. All workmen shall wear safety PPEs along with its awareness
3. Exclusive approved method statement for execution to be followed
4. Ensure proper supervision to be made available
5. Adequate staging and platforms to be provided
6. Necessary stair case /certified ladder arrangement should be made to reach the work place at all heights
7. The approach area shall be clear from all encumbrances and platforms if any shall have proper handrails/barricades as per the standards
8. Sufficient safe work space shall be available for cutting team with machineries, rigger team, supervisors, etc.
9. Slab/beam area to be cut shall be marked as per the approved drawing
10. Before initiating the cutting process, the bottom slab/beam area shall be provided with adequate support structures/probes as required
11. Beneath the slab/beam cutting area, safety barrication to be ensured to avoid public access
12. Before starting the cutting operation, rigging team shall be ready with all equipments, tools & tackles and core-cutting handing supports, etc., for handing the cut pieces of slab/beam
13. Step by step cutting shall be done as per approved method statement based on the handling capacities, sizes & cut locations
14. After cutting, the cut pieces shall be handled with utmost care & shifted to the boom reachability of lifting machineries
15. After completion of cutting & removal of pieces, that opened up area to be barricaded properly with hard barrication until further completion of its intended purpose
16. With the support of rigger's team & lifting machineries, cut pieces shall be brought down to the ground level and to be transported / disposed to the earmarked locations
17. If required, the cut pieces shall be broken into debris & disposed accordingly
18. Finally, good housekeeping to be ensured in both cutting & disposal locations



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**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.

**JOB SAFETY ANALYSIS :(JSA)**

<b>Job Safety Analysis</b>	<b>Job:</b> This SOP is applicable to Safe working for Concrete slab cutting work	<b>Date:</b> 18.02.2022	<b>Analysis by:</b> M.I. Shameem Sufiyan	<b>Reviewed by:</b> S. Chandra Bose
<b>Title of employee doing job:</b> Concern contractor & skilled manpower	<b>Supervisor:</b> Section Engineer	<b>Department:</b> Civil	<b>Section:</b> All plant area	<b>Approved by:</b> S. Chandra Bose
<b>Req'd/recommended PPE:</b> Safety helmet, Safety shoes, Safety full body harness, Nose mask, Safety goggles, Hand gloves, Gumboot.				
<b>Sequence of Basic Job Steps</b>	<b>Potential Hazards</b>	<b>Recommended Safe Procedure</b>	<b>What Could Go Wrong</b>	<b>Corrective Action</b>
1) During cutting operation	Injury to cutting operating / rigger person	Experienced/skilled manpower shall be deployed with approved method statement of execution	May lead to cut injury / fatal	Experienced / skilled manpower to be deployed
2) During cutting/handling process	Person may fall	DCBL Height work & scaffolding standard shall be followed strictly	May lead to injury / fatal	DCBL Height work & scaffolding standard along with proper PPEs to be ensured
3) During cutting/handling process	Free fall of cut material	DCBL Height work & scaffolding standard shall be followed strictly	May lead to injury / fatal	DCBL Height work & scaffolding standard along with proper PPEs to be ensured
6) Electrical equipment's safety	Electrical hazard	Ensuring the fitness of electrical equipment like cutting equipments, extension boxes light fittings & tools. Damaged cables shall not be used	Electric shock / fatality	Ensure the operating condition of all equipments along with fitness certificate before startup of work. Trained operators shall be deployed