R.C.C.Staircase Job-Height 6Mtr. Job Hazard Analysis

PROJECT / TASK : Jabil-Phase-2	CONTRACTOR : .	JOB No.:19
SUPERVISOR :	LOCATION :	DATE:05/02/2008

JOB STEP Break the job into steps. Listing work which may be hazardous.	HAZARDS List the hazard or type of harm identified with each step	Consequence	Likelihood	Risk Ranking	Control Measure List the necessary control measures to be followed to eliminate the identified hazards	Consequence	Likelihood	Risk Ranking	ACTION Person who will ensure this happens
Excavation By Pock land Depth Apx.3Mtr.	Hit Hazard	3	2	5	✔ As Per Checklist Vehicle Check ✔ Only Trained Operator allow to Work. ✔ No workers to inside excavation while earth moving equipment are in operation	1	1	2	
Removal of excavated materials Dressing & Levelling of Soil	Fall of heavy objects/stones, boulders etc. in the excavated pit. Fall of person into the pit.	2	2	4	✔ Keep the removed earth at least 1 m away from the pit. Proper access Purpose Use of ladder. ✔ Provide proper slope for stability of excavation.	1	1	2	

P.C.C. Job Transportation of concrete Placing of Concrete Manually	• Over speeding/over turning of Tough Rider • Hitting Hazards • Falling Hazards, Skin Irritation,	3 3	2 2	5 5	✔ Speed limit to be maintained below 15 kmph. ✔ Trained driver Allow To Driving of Tough Rider. ✔ Proper supervision should be ensured. ✔ Use Gum Boots, Rubber Hand Gloves, ✔ Proper access Purpose Use of ladder.	1 1	1 1	2 2
Bending of steel	• Hit Hazard • Cut Injury	3	2	5	✔ Area to be hard barricaded and restricted entry for all other than those who are engaged of the work. ✔ PPE's to be provided for all.(Hand gloves) ✔ Continuous supervision to be provided.	1	1	2

Shuttering Job	✔	Hit/material fall hazard	3	2	5	✔ Nylon Rope to be used for lifting the shuttering materials ✔ Skilled and trained carpenters will be deployed ✔ Before lifting the material to be checked for tightness to avoid trip/fall hazard. ✔ PPE's to be provided for all	1	1	2
Working at height Height 6Mtr.	✔	Fall Of Person	3	2	5	✔ Use Of Proper Scaffolding ✔ Platform with proper access. ✔ Scaffolding to be done by a trained persons under strict supervision. ✔ Full body harness with double lanyard to be provided for those who are working more than 2 mtrs and to be hooked properly at the top]	1	1	2
	✔	Material Fall hazard	3	2	5	✔ Life line to be provided wherever required. ✔ Shuttering material to be tied properly ✔ Shuttering material to be secured properly before pouring concrete inside. ✔ Continuous supervision to be provided.	1	1	2

Staircase Concreting work by by manual	Trip hazard	✔ Shifting of concrete to the pouring area should be cleared out all unwanted materials and proper access to be given to avoid trip hazard
	Person Injury	✔ Concrete to be poured on concrete tray and those who are doing the filling work & those who are standing on the concrete will be provided with gumboots and rubber hand gloves other than mandatory PPE's.
	Fall Of Person	✔ Use Of Proper Scaffolding ✔ Platform with proper access. ✔ Scaffolding to be done by a trained persons under strict supervision. ✔ Full body harness with double lanyard to be provided for those who are working more than 2 mtrs and to be hooked properly at the top] ✔ Life line to be provided wherever required.

De-shuttering work House keeping	Cut injury/nail bite	✔ Skilled and trained carpenters will be deployed. ✔ PPE's to be provided for all.(Safety Helmet with Chin Strip, Safety goggles, Safety shoes, Reflective vest, cotton hand gloves.) ✔ Scrap will be shifted to the scrap yard after the completion of work. ✔ Proper House keeping will be provided for wood scrap, nails etc. to avoid cut injury/ nail bite. ✔ Daily tool box talks to be followed

Job Hazard Analysis Attendees:

	Name	**Signature**	**Date**
Written by:			

Score	TABLE OF CONSEQUENCE		
	People	**Plant**	**Environment**
5 – Very High/ Catastrophic	Multiple Fatalities	Greater than $10Million Loss	Catastrophe, destruction of sensitive environment, worldwide attention. Likely EPA prosecution. More than 30 days delay.
4 – High/ Major	Fatality or Permanent Disabilities	$1Million to $10Million Loss	Disaster, high levels of media attention, high cost of clean up. Offsite environmental harm, more than 10 days delay.
3 – Moderate	Major Injuries - Incapacitations or requiring time of work	$100Thousand to $1Million Loss	Major spills, onsite release, substantial environmental nuisance, more than 1day delay. (Leads to an additional resources call out i.e. SES)
2 – Low/ Minor	Significant Injuries – Medical Treatments, non-permanent injury	$10Thousand to $100Thousand Loss	Significant spills (leads to a call out of Site Emergency Response Group)
1 – Very Low/ Insignificant	Minor Injuries – First Aid Treatments (cuts/bruises)	Less than $10Thousand Loss	Low environmental impact. Minor Spills less than 80 Litres.

Score	*LIKELIHOOD*
5 – Almost certain	The event is expected to occur in most circumstances. Likely to occur frequently- More than 1 per year
4 – likely/ probable	The event will probably occur in most circumstances. Likely to occur several tines. 1 per year
3 – moderate/ occasional	The event should occur at some time. Likely to occur some time. 1 per 5 years
2 – remote/ unlikely	The event could occur at some time. Unlikely but possible. 1 per 10 years
1 – rare/ very unlikely	The event may occur only in exceptional circumstances. Assumed it may not be experienced. 1 per 100 years

Risk Rating = Consequence + Likelihood

Consequence	Risk Rating				
5	6	7			
4	5	6	7		
3	4	5	6	7	
2	3	4	5	6	7
1	2	3	4	5	6
	1	**2**	**3**	**4**	**5**
	Likelihood				

Risk Rating - Definitions

Risk Rating	Definitions	*Action Required*
8 - 10	Intolerable	Task not to start till the risk is eliminated or reduced. Bring to the immediate attention of management. Formal assessment required. MUST reduce the risk as a matter of priority.
7	High	Bring to the immediate attention of management. Task not to start till the risk is eliminated or reduced. Further Assessment required. MUST reduce the risk as a matter of priority.
6	Significant Risk	Bring to the attention of supervision. Review risks and ensure that they are reduced to as low as reasonably practicable. To be dealt with as soon as possible, preferably before the task commences. Introduce some form of hardware to control risk.
5	Moderate Risk	Needs to be controlled but not necessarily immediately, an action plan to control the risk should be drawn up. Review effectiveness of controls. Ensure responsibilities for control are specified.
2-4	Low Risk	If practical reduce the risk. Ensure personnel are competent to do the task. Manage by routing procedure. Monitor for change

A JHA considers a variety of activities/tasks involved in a job scope and analyses the key hazards (sources of harm) and their consequences (types of harm) eg. Sources of harm – lifting a heavy pipe, which is manual handling. Types of harm – Back strain.

Main Points – On how to write a JHA.

1. Define the task – what is to be done.
2. Review previous JHA if any – have we done it before?
3. Identify the steps – what is to be done.
4. Identify the hazards of each step.
5. Identify who or what could be harmed.
6. Give the task a risk rating – Consequence + Frequency
7. Develop solutions to eliminate or control hazards in each step.
8. Review the risk rating after the control system has been implemented.
9. If risk rating unacceptable review the solutions till risk rating acceptable.

Hierarchy of Hazard Management – Control Measures

These steps outline what should be planned for when deciding what control measures are to be put in place. Whenever possible the highest step should be used first and then progress down the list.

1. Eliminate the hazard.
2. Substitution.
3. Reducing the frequency of a hazardous task.
4. Enclosing the hazard.
5. Additional procedures.
6. Additional supervision.
7. Additional training.

10. Agree who will implement the control system. 11. Document the JHA and discuss with the relevant personnel.	8. Instructions / information. 9. Some personal protective equipment.