RISK ASSESSMENT, DISASTER MANAGEMENT AND SAFETY MEASURES

A well - defined Risk Management Plan is made as follows:

STEP 1: Define the Projects/Tasks

- *Site Clearing*
- *Excavation*
- *Raft*
- *RCC slab*
- *Block work / plastering*
- *External plastering*
- *Joinery - frame fixing*
- *Flooring*
- *Interior works*
- *Windows fixing*
- *Flooring*
- *False ceiling*
- *Painting*

- **Services**
  - I. Electrical
  - II. Plumbing
  - III. Fire fighting

Equipments

i. Elevator
ii. STP /WTP
iii. Hard and landscape

STEP 2: Identify the Hazards

a) Are you using (Tick boxes)

[√] plant/equipment
[√] portable electrical equipment
[x] pressure vessels/boilers
[x] hazardous substances
[√] scaffolding
[√] ladders
[√] lifts/hoists/cranes/dogging/rigging/load shifting machinery

b) Does the project/task involve (Tick boxes)

[√] using tools/equipment with moving part(s)
[√] using tools/equipment that vibrate
[√] working around electrical installations
[√] working near traffic
[√] working at a height (>3m)
[√] working in isolation

[x] working with x-rays ,or lasers
[√] electrical wiring
[x] asbestos removal
[√] welding
[x] hazardous waste
[√] excavation / trenches (>1.5m)
[√] working in a confined space
[√] manual handling
[√] repetitive or awkward movements
[x] lifting or moving awkward or heavy objects

c) Is there (Tick boxes)

[√] noise
[√] dust/fumes/vapours/gases
[x] extreme temperatures
[x] risk of fire/explosion
[√] slippery surfaces/trip hazards
[x] poor ventilation/air quality
[x] a poorly designed work area for the project/task

STEP 3: Assess the Risk

Table 24: During Construction Phase:

Activities	Air Pollution	Water Pollution	Noise Pollution	Soil Pollution	Occupational Hazard
A. Material Handling:					
Cement	+M	-	-	+M	+M
Steel	-	-	+	-	+M
Sand	-	-	-	-	-
Stone	-	-	-	-	+L
Wood	-	-	-	-	-
Glass	-	-	-	-	+H
Hardware	-	-	-	-	-
Colour	-	+H	-	+H	-
B. Construction Machinery					
Rotary Driller	+L	-	+H	-	+H
Mixers	+M	-	+M	+L	+M
Excavator	+L	-	+L	-	+H
Material Lift	-	-	+L	-	+H

Risk Factor:

+ : Positive
- : Negative
L : Low
M : Medium

H : High

For any projects/tasks that present a high or extreme risk, a Safe Work Method Statement must be completed.

STEP 4: Control the Risk

Note how you will control the risk following the priorities listed to the right. This may include controls like redesigning the workplace, using guards or barriers, ventilation, using lifting equipment or personal safety equipment.

- Eliminate the Hazard
- Keep the Hazard and People Apart
- Change the Work Methods
- Use Personal Protection

Note any specific risk assessments required for high-risk hazards. Check whether any hazards noted in step 2 require further assessment or action.

[x] hazardous substance risk assessment
[√] confined spaces risk assessment
[√] sound level test
[√] test and tag electrical equipment

a) Note Permits/Licenses/Registration required

[x] Demolition work
[x] Friable asbestos removal
[√] Electrical wiring
[x] Ionizing radiation sources
[x] Pressure vessels
[√] registers for chemicals, Personal protective Equipment, training, ladders, lifting gear

b) Note certificates of competency/licenses for operators

[√] Scaffolding
[√] Pesticide application
[√] Rigging
[√] Crane operation
[√] Load shifting machinery operation
[√] Hoist operation

c) Note emergency systems required

[√] first aid kit
[√] Fire control
[√] extended first aid kit
[√] remote communication mechanism
[√] emergency stop button
[x] others
[√] additional emergency procedures

STEP 5: Actions Required to Control the Risk

A. <u>During construction to reduce pollution:</u>

- Manual water sprinkling during dust excavation
- Using RMC to reduce air pollution
- Dust cover for Trucks
- New Construction Machinery
- Equipment will work intermittently
- Rotary drillers instead of acoustic drillers
- Vehicular trips will not be at peak traffic hour
- Ear Plugs to workers
- No noise polluting work in night shifts

B .Safety & Hygienic Measures:

- Adequate drinking water, toilet and bathing facilities
- There will be free medical camps and first aid rooms for workers
- Safety equipments like helmets, safety shoes etc. to personnel and visitors
- Personnel protective equipments like leather gloves, goggles and ear muffs when required
- Personnel working on heights will wear safety equipments and will not work alone
- To prevent any accidents, the entire area under construction will be cordoned off with tin sheets and safety tape is run outside this fence
- Regular pest control will be done
- Adequate fire fighting equipments will be provided