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<b>INSTALLATION OF UPS SYSTEM</b>			
Company Doc. No. MSRA-UPS-00-000	Contractor Ref. No. QHSE-UPS-0000	Date 00-00-0000	Revision 00

# **INSTALLATION OF ULTRA SUPPLY POWER (UPS) SYSTEM**

**Project No:**

REVISION HISTORY	ISSUE DATE	DESCRIPTION	REVIEW / STATUS
00			

PREPARED BY:	REVIEWED & APPROVED BY:
QA QC ENGINEER	PROJECT ENGINEER

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## 1.0. PURPOSE

The purpose of this Method Statement is to identify the requirements for the installation of UPS system as per the contract specification, drawings and as per required standards, specifications, requirements and regulations if any.

## 2.0. SCOPE

This method statement is applicable to all activities related to installation of UPS system. This document will ensure that the work is carried out and complies with the project specifications and requirements. This method statement is applicable to the entire infrastructure in the project for all the buildings.

## 3.0. REFERENCES

- Electrical Specification
- Approved shop drawing.
- Approved Material submittal

## 4.0. DEFINITIONS & ABBREVIATIONS

### **COMPANY:**

### **Contractor:**

**PM:** Project Manager

**CM:** Construction Manager

**MS:** Method Statement

**IFC:** Inspection and Test Request

**ITR:** Issued for Construction

**MAR:** Material Approval Request

**QCP:** Quality Control Procedure

**ITP:** Inspection and Testing Plan

**RA:** Risk Assessment

**IFC:** Issued For Construction

## 5.0. RESPONSIBILITIES

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### 5.1. Project Manager

- ☒ Project Manager is responsible for overall management of the job with quality and safety as per approved shop drawing and method statement.

### 5.2. Construction Manager

- ☒ Construction Manager/Project Engineer shall arrange all materials, equipment, safety related items & manpower & direct the Site Engineer & Foreman to resort appropriate action for the smooth execution of the works.

### 5.3. Site Engineer

- ☒ Site Engineer shall ensure that all works are carried out according to approved shop drawings. He shall direct the surveyor for the settings outlines & levels in concurrence from the Construction Manager/Senior Civil Engineer.

### 5.4. QA/QC Engineer

- ☒ QA/QC Engineer shall ensure that execution of works are complying with approved method statement, specifications, approved shop drawings and ensure ITR are submitted based on ITP requirements, also he is responsible for all quality control measures.

### 5.5. Site Surveyor

- ☒ Site Surveyor to ensure that the work crew is familiar with the safety requirement of this activity.

### 5.6. Safety Engineer

- ☒ Safety Engineer shall be responsible for safe working environment & conditions. Coordinate with Site Engineer to identify potential hazard s before works and advice methods of safe working from new developments.

### 5.7. MEP Coordinator

- ☒ MEP Coordinator Engineer shall be responsible for proper execution of MEP works.

### 5.8. Project Engineer (Electrical):

- ☒ Ensure that the activities are carried out according to the Specifications, drawing and approved Method statement.
- ☒ Ensure that all required submittal are made in a timely manner.
- ☒ Arrange all materials and tools required for installation as per agreed project schedule. Provide all necessary information and distribute the responsibilities to his unit installation team.
- ☒ Monitoring that all in process test are carried out and obtained approval from COMPAN Y's Representative

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- Monitoring and ensuring that the work is performed in accordance within the time and cost constraints.

### 5.9. Foreman (Electrical)

- Foreman (Electrical) Carrying out the work and the proper distribution of all the available resources in coordination with the Site Engineer on a daily basis.
- Continuous coordination and following Site Engineer's instructions to meet quality requirement during the job execution.
- Incorporate all the QC and Safety requirements as requested by the COMPANY's representative,
- Report to Site Engineer the accomplishments and problem encountered on daily basis.

## 6.0. MATERIALS

Materials to be used as per approved submittal include:

- UPS 80KVA.

## 7.0. EQUIPMENT & TOOLS

- Crane.
- Fork Lift.
- Spirit level.
- Cable cutter.
- Crimping tool with crimping bits.
- Millimeter
- Hacksaw frame with blade
- Safety gloves Safety goggles
- Screw drivers
- Drilling Machine & drill bits.

## 8.0. SAFETY & HEALTH

- All safety precautions shall be followed as per the established Project Safety Plan.
- Properly erected ladders and scaffoldings shall be used and safety harness shall be used and secured, if required.
- Safety helmets, Dust masks, goggles and gloves shall be worn while doing the works.
- All PPE shall be worn as appropriate according to the nature of the job.
- Work area shall be maintained neat and clean.
- Ongoing works risk assessment will be carried out as required.

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- Warning signs shall be displayed while carrying the work.
- Safety officer shall check and ensure that all safety precautions are followed during work.

## 9.0. PROCEDURE

### 9.1. Storage

- ☒ UPS received at site shall be inspected and approved by COMPANY before use and ensured that the UPS is as per approved material submittal.
- ☒ UPS should be stored according to manufacturer recommendations.
- ☒ UPS shall be stored in a covered/ dry space with factory packing to avoid direct sunlight dust and water.

### 9.2. Installation

- ☒ After the civil clearance and COMPANY approval to proceed with Electrical installations, ensure the area is clean and ready for fixing the UPS as per approved Electrical shop drawings.
- ☒ Drawing for installation shall be approved and shall be coordinated with other services.
- ☒ Ensure the approved installation drawing is available with site team for installation.
- ☒ Ensure that UPS are checked and verified free of damage prior to do the installation.
- ☒ Verify that UPS is new and unused.
- ☒ The UPS proposed area shall be ready for site installation. Prior to the installation, the area where the UPS to be installed shall be inspected to ensure architectural works and finishing are completed and the areas are free from dust.
- ☒ Ensure that isolator are installed near the UPS location as per shop drawing.
- ☒ By using the crane, the pallets containing battery & UPS shall be removed from the truck and it will be placed temporarily in front of the stair 3.
- ☒ After unloading all pallets in the temporary place, each pallet shall be dismantled carefully to take the subject materials out.
- ☒ Using labors, UPS and Battery shall be moved to the place of installation in the electrical room first floor.
- ☒ While moving through stair, corridor and inside the room, it shall be ensured that materials should not hit the side walls and other panels already installed in the room.
- ☒ While positioning the Battery and UPS, it shall be ensured that clearance between them and from the wall is as per approved drawing.
- ☒ Adjust the level of UPS enclosure by spirit level.
- ☒ Install rubber cable from Isolator to UPS connector with each wire.
- ☒ Install outgoing cable from UPS connector to SMDB UPS.

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- Only trained personnel will be carried out the termination cable works.
- After termination physical test shall be carried out for any loose or wrong connections.
- Provide the identification labels as per approved drawings. Inspection shall be offered for quality control verification.

#### 10.0. ATTACHMENTS:

- QCP
- ITP-
- FM-
- RA