No. F.dspwd-2/253-258 GOVERNMENT OF NCT OF DELHI Public Works Department

PWD Secretariat 3rd Level, MSO Building, New Delhi Dated: 18th March, 2025

Sub: Standard Operating Procedure (SoP) for Automatic Starting of Water Pumps installed by PWD at Sub-ways etc in Delhi

1. Purpose:

To ensure the automatic starting of water pumps at sub-ways in Delhi during rainfall, preventing waterlogging and ensuring smooth traffic flow.

2. Scope:

This SoP applies to all sub-ways in Delhi equipped with automatic water pumps.

3. Responsibilities:

- 1. **Engineering Staff:** Responsible for operational monitoring, maintenance, and troubleshooting of water pumps.
- 2. **Control Room Operators**: Responsible for monitoring rainfall data and initiating the automatic start of water pumps.
- 3. Maintenance Team: Responsible for regular maintenance and upkeep of water pumps.

4. Equipment and Software:

- 1. Rainfall Sensors: Installed at sub-ways to detect rainfall intensity.
- 2. Automatic Control Panel: Controls the starting and stopping of water pumps based on rainfall data.
- 3. SCADA System: Supervisory Control and Data Acquisition system for real-time monitoring of water pumps.
- 4. Mobile Application: For remote monitoring and alerts.

5. Procedure:

(i) Pre-Rainfall Preparations

- 1. Ensure all water pumps are in good working condition.
- 2. Conduct regular maintenance checks on pumps, motors, and control panels.
- 3. Test the automatic control panel and SCADA system.

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(ii) Automatic Starting of Water Pumps

- 1. Rainfall sensors detect rainfall intensity and send data to the automatic control panel.
- 2. The control panel initiates the automatic start of water pumps when rainfall intensity exceeds the set threshold.
- 3. The SCADA system monitors the water pumps' status and sends real-time data to the control room.

6. Operational Monitoring

- 1. Engineering staff monitor the water pumps' performance remotely through the mobile application.
- 2. Control room operators monitor the SCADA system and rainfall data to ensure the water pumps are operating correctly.
- 3. Maintenance team is alerted in case of any issues or alarms.

7. Troubleshooting and Maintenance

- 1. Engineering staff investigate and troubleshoot any issues with the water pumps or control panel.
- 2. Maintenance team performs routine maintenance tasks, such as cleaning and replacing filters.

8. Post-Rainfall Procedures

- 1. Engineering staff inspect the water pumps and control panel to ensure they are in good working condition.
- 2. Control room operators review the SCADA system data to identify any issues or areas for improvement.
- 9. This issues with the approval of Pr. Secretary (PWD), GNCTD.

(M.K. Nikhil) Deputy Secretary (PWD)

To

- 1. The Engineer in Chief PWD, 12th Floor, MSO Building, New Delhi
- 2. All Chief Engineers of the PWD, MSO Building, New Delhi
- 3. All SE/EE through Chief Engineers
- 4. System Analyst, PWD with the request to upload the Circular on the website of PWD under relevant section.

Copy for information to:

- 1. PS to Pr Secretary, PWD, 3rd Floor MSO Building, New Delhi
- 2. PS to Special Secretary-I/II, PWD, 3rd Floor MSO Building, New Delhi

by . Secretary (PND)