

## 1. SITE &amp; PUMP IDENTIFICATION

Site / Facility:  Date: Address: Pump Tag / ID:  Manufacturer: Rated Capacity (LPM):  Rated Head (m):  Rated Speed (RPM): Pump Type: ☐ Electric Motor Driven ☐ Diesel Engine Driven ☐ Jockey Pump

## 2. PRE-TEST SYSTEM CONDITIONS (record before starting pump)

Suction Pressure (kg/cm<sup>2</sup>):  Discharge Pressure (kg/cm<sup>2</sup>):  Time: Pump Room Temp (°C):  Ambient (°C):  1 kg/cm<sup>2</sup> ≈ 14.2 psi ≈ 0.98 bar

## 3. ELECTRIC PUMP — NO-FLOW (CHURN) TEST (10 min minimum · NFPA 25 §8.3.4)

**Test frequency:** Per NFPA 25 (2011 ed. onward) the **electric** pump no-flow test is **monthly** and the **diesel** test is **weekly** (§8.3.1). Many Indian AHJs / insurers (TAC & IS 15301 practice) require **weekly** running of both — follow the stricter requirement for your site. Use one log per test event.

| Parameter                                         | Observation          | Acceptance Criteria                                            |
|---------------------------------------------------|----------------------|----------------------------------------------------------------|
| Start-up (automatic)                              | <input type="text"/> | Pump starts automatically on pressure drop                     |
| Time to reach rated speed (sec)                   | <input type="text"/> | ≤ 10 seconds for electric                                      |
| Suction pressure during run (kg/cm <sup>2</sup> ) | <input type="text"/> | Stable, above minimum required                                 |
| Discharge pressure at churn (kg/cm <sup>2</sup> ) | <input type="text"/> | Within ±5 % of rated shut-off head (vs pump curve / last test) |
| Motor voltage — R-Y / Y-B / B-R (V)               | <input type="text"/> | Within ±10 % of nameplate (e.g. 415 V ±10 %)                   |
| Motor current — R / Y / B (A)                     | <input type="text"/> | ≤ Full-load current on nameplate                               |
| Packing gland leakage (drops/sec)                 | <input type="text"/> | Slight leak normal; ~ 1 drop/sec to cool packing               |
| Bearing temperature (°C)                          | <input type="text"/> | ≤ 80 °C or per manufacturer                                    |
| Unusual noise / vibration                         | <input type="text"/> | None — note any abnormality in §6                              |
| Run duration (min)                                | <input type="text"/> | Minimum 10 minutes                                             |

## 4. DIESEL ENGINE PUMP — WEEKLY NO-FLOW TEST (30 min minimum - NFPA 25 §8.3.4)

| Parameter                                         | Observation          | Acceptance Criteria                                         |
|---------------------------------------------------|----------------------|-------------------------------------------------------------|
| Start-up — battery #1 attempt                     | <input type="text"/> | Engine starts & reaches rated speed within 20 sec (NFPA 20) |
| Start-up — battery #2 (if needed)                 | <input type="text"/> | Engine starts within 20 sec on second battery               |
| Time to reach rated speed (sec)                   | <input type="text"/> | ≤ 20 seconds for diesel                                     |
| Engine oil pressure (kg/cm <sup>2</sup> )         | <input type="text"/> | Within manufacturer's range                                 |
| Engine water / coolant temp (°C)                  | <input type="text"/> | ≤ 95 °C; cooling water flowing                              |
| Engine RPM at run                                 | <input type="text"/> | Within ±5 % of rated RPM                                    |
| Battery #1 voltage / charge current               | <input type="text"/> | ≥ 12 V (24 V system: ≥ 24 V); float charging                |
| Battery #2 voltage / charge current               | <input type="text"/> | ≥ 12 V; float charging                                      |
| Fuel tank level (%)                               | <input type="text"/> | ≥ 67 % (two-thirds) of capacity                             |
| Suction pressure during run (kg/cm <sup>2</sup> ) | <input type="text"/> | Stable, above minimum                                       |
| Discharge pressure at churn (kg/cm <sup>2</sup> ) | <input type="text"/> | Within ±5 % of rated shut-off head                          |
| Exhaust system — colour / leaks                   | <input type="text"/> | Clear / light grey; no leaks                                |
| Packing gland leakage (drops/sec)                 | <input type="text"/> | ~ 1 drop/sec acceptable                                     |
| Run duration (min)                                | <input type="text"/> | Minimum 30 minutes                                          |

## 5. WEEKLY VISUAL &amp; SYSTEM CHECKS (tick OK / N-OK / N/A)

|                                                                             |                             |                               |                              |
|-----------------------------------------------------------------------------|-----------------------------|-------------------------------|------------------------------|
| Pump house heating ≥ 4 °C (≥ 21 °C for diesel rooms) / ventilation adequate | <input type="checkbox"/> OK | <input type="checkbox"/> N-OK | <input type="checkbox"/> N/A |
| Pump room clean, dry, free of obstructions                                  | <input type="checkbox"/> OK | <input type="checkbox"/> N-OK | <input type="checkbox"/> N/A |
| Suction & discharge valves fully open & locked / sealed                     | <input type="checkbox"/> OK | <input type="checkbox"/> N-OK | <input type="checkbox"/> N/A |
| Pressure gauges reading normal (system at standby pressure)                 | <input type="checkbox"/> OK | <input type="checkbox"/> N-OK | <input type="checkbox"/> N/A |
| Controller in 'AUTO' mode; pilot lamps illuminated                          | <input type="checkbox"/> OK | <input type="checkbox"/> N-OK | <input type="checkbox"/> N/A |
| No leaks in piping, casing, packing (beyond allowable)                      | <input type="checkbox"/> OK | <input type="checkbox"/> N-OK | <input type="checkbox"/> N/A |
| Trouble / alarm signals on controller — none active                         | <input type="checkbox"/> OK | <input type="checkbox"/> N-OK | <input type="checkbox"/> N/A |
| Diesel fuel tank ≥ 67 %; no water in fuel; vents clear                      | <input type="checkbox"/> OK | <input type="checkbox"/> N-OK | <input type="checkbox"/> N/A |
| Battery terminals clean; electrolyte level OK (if applicable)               | <input type="checkbox"/> OK | <input type="checkbox"/> N-OK | <input type="checkbox"/> N/A |
| Emergency lighting in pump room operational                                 | <input type="checkbox"/> OK | <input type="checkbox"/> N-OK | <input type="checkbox"/> N/A |

## 6. OBSERVATIONS, DEFICIENCIES &amp; CORRECTIVE ACTION

## 7. OVERALL TEST RESULT

☐ SATISFACTORY — system fit for service ☐ DEFICIENCY — corrective action required

## 8. CERTIFICATION &amp; SIGNATURES

Tested by

Name:  Designation:  Sign:  Date: 

Verified by (Facility / Safety Officer)

Name:  Designation:  Sign:  Date: