



**STANDARD OPERATING PROCEDURE**

**Department:** Engineering

**TITLE:** Testing of Water Hardness

<b>SOP No.</b>		<b>Revision No.</b>	
<b>Effective Date</b>		<b>Supersedes No.</b>	
<b>Review Date</b>		<b>Page No.</b>	1 of 2

**1.0 OBJECTIVE**

The purpose of this SOP is:

- 1.1 The Objective of this SOP is to describe the procedure for checking of water hardness with test kit.

**2.0 SCOPE**

- 2.1 This SOP is applicable for the procedure for checking of water hardness with test kit.

**3.0 RESPONSIBILITY:**

- 3.1 The Maintenance Operator shall be responsible:
  - 3.1.1 Responsible for checking of water hardness with test kit.
- 3.2 The Maintenance Engineer shall be responsible:
  - 3.2.1 Responsible for assurance of proper testing.
  - 3.2.2 Responsible for take corrective action if any operational deviation observed.

**4.0 ACCOUNTABILITY**

Head –Engineering Services

**5.0 PROCEDURE:**

**5.1 METHOD FOR DETERMINATION OF WATER HARDNESS BY TEST KIT.**

- 5.1.1 Take 25 ml. of sample water into the test jar.
  - 5.1.2 Add 2 micro-spoon of powder Reagent –A.
  - 5.1.3 Add 15-20 drops of Reagent-B. If violet color appears hardness is present in the sample. If Blue color appears, hardness is absent in the sample.



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**5.1.4** Add Reagent- R or S drop by drop till the violet colour is changed to blue colour. Shake the jar after the addition of each drop.

**5.1.5** Count the number of drops while adding. Each drop of Reagent R= 5 ppm of hardness and Reagent S = 2 ppm of hardness.

### 6.0 ANNEXURES:

Nil

### 7.0 REFERENCES (S)

Nil

### 8.0 GLOSSARY

SOP : Standard Operating procedure

No : Number

PPM : Parts Per Million.