



Title: Procedure of How to Check Hardness

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1.0 OBJECTIVE

- 1.1 To describe a procedure for the operation of how to check hardness.

2.0 SCOPE

- 2.1 This procedure applies to the Engineering department.

3.0 RESPONSIBILITY

- 3.1 Mechanical Engineer - Engineering

4.0 ACCOUNTABILITY

- 4.1 Unit Head

5.0 REFERENCE (S)

- 5.1 In-house.

6.0 PROCEDURE

- 6.2.1 Take the hardness checking kit.
6.2.2 Open sampling valve vs-1.
6.2.3 Take 10 ml of water sample under test in a test tube.
6.2.4 Close the valve vs-1
6.2.5 Add half spoon (provided in the kit) of H1.
6.2.6 Mix to dissolve completely.
6.2.7 Then add 10-15 drops of H2.
6.2.8 If the color is blue then it indicates that hardness is nil in the water.
6.2.9 If the color is violet then it indicates hardness.
6.2.10 Add drop wise H3 and count the number of drops until the color changed from violet to blue.
6.2.11 If the hardness is more than 20 ppm then use H4.

7.0 CALCULATION:-

- 7.1 Total hardness as PPM CaCO₃.
=1x (No of drops of H3)
=10x (No of drops of H4)



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8.0 HISTORY

SOP No.	REASON FOR CHANGE	EFFECTIVE DATE

9.0 ABBREVIATIONS: The abbreviations used in the SOP are:

- SOP - Standard Operating Procedure
- No. - Number
- NA - Not Applicable
- QA - Quality Assurance