



**Title:** Procedure for Testing of ETP Water

<b>SOP No.:</b>		<b>Revision No.:</b>	00
<b>Effective Date:</b>		<b>Supersedes No.</b>	Nil
<b>Review Date:</b>		<b>Page No.</b>	1 of 8

**1.0 OBJECTIVE:**

To lay down a procedure for the Procedure for Testing of ETP water in Quality Control department.

**2.0 SCOPE:**

This SOP procedure is applicable for Quality Control Department of .....

**3.0 RESPONSIBILITY:**

Officer / Executive – QC

**4.0 ACCOUNTABILITY:**

Head – QC

**5.0 DEFINITION:**

NA

**6.0 PROCEDURE:**

**6.1 Procedure for Sampling of ETP Water**

- 6.1.1 ETP sample shall be collected by Officer/designee of ETP plant.
- 6.1.2 ETP sample shall be collected from outlet point of ETP plant
- 6.1.3 ETP Sample shall be received by Executive/Officer of QC dept.
- 6.1.4 Executive/Officer shall make the entry of ETP sample in inward register.
- 6.1.5 Executive/Officer shall allot the AR number to the sample and allocate to the analyst for testing as per specification.
- 6.1.6 Analyst shall perform the analysis as per respective STP and fill the report.
- 6.1.7 Analyst shall submit the complete report to the Executive/officer.
- 6.1.8 The testing frequency of the ETP sample shall be as given below in prescribed table:





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## 10.0 REFERENCES:

In-House

## 11.0 REVISION HISTORY:

Revision No.	Change Control No.	Details of Changes	Reason of Changes	Effective Date	Done By
00	Not Applicable	Not Applicable	New SOP		







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		<p style="text-align: right;">Sample Vol. in ml</p> <p style="text-align: right;">x 1000 x 1000</p> <p style="text-align: center;">= -----</p> <p style="text-align: right;">50</p> <p style="text-align: center;">= -----</p> <p>mg / lit.</p>	
5.	<p><b>Total Hardness</b></p> <p>NMT 300 mg / lit.</p>	<p style="text-align: center;">Reading x Molarity of E.D.T.A x 100 x</p> <p>1000</p> <p>Mg/lit. = -----</p> <p style="text-align: center;">Sample taken (ml)</p> <p><b>Observation :</b>-----</p> <p>-----</p> <p>= -----</p> <p>-----</p>	
6.	<p><b>Chemical Oxygen Demand (C.O.D) :</b></p> <p>NMT 250 mg / lit.</p>	<p><b>By Conventional Method</b></p> <p style="text-align: right;">(a – b) x Normality x</p> <p>8000</p> <p>Chemical Oxygen Demand = -----</p> <p>-----mg/L</p> <p style="text-align: right;">Sample taken</p> <p>(ml)</p> <p>Volume of sample taken = -----</p> <p>ml of Ferrous ammonium Sulphate used for blank</p> <p>(a)</p> <p style="text-align: center;">= -----</p> <p>----- ml</p> <p>ml of Ferrous ammonium Sulphate used for test</p> <p>(b)</p> <p style="text-align: center;">= -----</p>	



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		<p style="text-align: center;">---ml</p> <p style="text-align: center;">Normality of Ferrous ammonium Sulphate = -----(N)</p> <p style="text-align: center;"><math>(a - b) \times N \times 8000</math></p> <p style="text-align: center;">C.O.D = -----</p> <p style="text-align: center;">Sample taken (ml)</p> <p style="text-align: center;">= -----</p> <p style="text-align: center;">mg / lit.</p>	
7.	<p><b>Chloride</b> NMT 600 mg / lit.</p>	<p>Sample taken = ----- (50 ml)</p> <p>Vol. used = Volume Consumed of 0.01 M Silver Nitrate</p> <p>Indicator : Potassium Chromate solution 5 %</p> <p style="text-align: center;"><math>\text{Vol. used} \times 0.35453 \times \text{Molarity} \times 1000</math></p> <p style="text-align: center;">= -----</p> <p style="text-align: center;">0.01 x Spl. Vol.</p> <p style="text-align: center;">= -----mg</p> <p style="text-align: center;">/ lit.</p> <p style="text-align: center;">=-----</p> <p style="text-align: center;">mg/lit.</p>	
8.	<p><b>Sulphate</b> NMT 1000 mg / lit.</p>	<p style="text-align: center;"><math>\text{Weight of residue (mg)} \times 1000 \times 0.680</math></p> <p style="text-align: center;">= -----</p> <p style="text-align: center;">Sample (ml)</p> <p style="text-align: center;"><math>\times 1000 \times 0.680</math></p> <p style="text-align: center;">= -----</p> <p style="text-align: center;">-</p> <p style="text-align: center;">= -----</p> <p style="text-align: center;">mg / lit.</p>	



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9.	<b>Biochemical Oxygen Demand (B.O.D)</b> NMT 30 mg / lit.		
10.	<b>Oil &amp; Grease</b>	Weight of the beaker after evaporation of hexane in g (B) = Weight of the empty cleaned dried beaker in g (A) = Weight of oil and grease in the sample in g (B - A) = $= \frac{(B - A) \times 1000 \times 1000}{\text{Volume of sample taken (ml)}}$	

**Remarks:** The Sample complies / does not complies as per In-house specification.

**Checked By/Date**