



Title: Operation of Soft Water Plant

SOP No.:		Revision No.:	00
Effective Date:		Supersedes No.	Nil
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1.0 OBJECTIVE

1.1 To describe a procedure for the operation of soft water plant.

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

6.1 Procedure of operation of soft water plant.

- 6.1.1 Before the operation of the soft water plant ensures that the chlorine content of raw water is between 0.2 to 0.5 ppm.
- 6.1.2 Open the raw water valve RWV-1 and check the pressure at the inlet of sand filter.
- 6.1.3 SET the MPV of the sand filter on "back wash position".
- 6.1.4 Start the raw water pump ENG/DM/P-1 by pressing the GREEN push button and carry out the back wash operation for 10 minutes and STOP the pump.
- 6.1.5 SET the MPV on "Rinse" position.
- 6.1.6 Start the raw water pump ENG/DM/P-1 by pressing the GREEN push button and carry out the rinsing operation for 10 minutes and STOP the pump.
- 6.1.7 Start the raw water pump ENG/DM/P-1 by pressing the GREEN push button and carry out the back wash operation of the carbon filter for 10 minutes and STOP the pump.
- 6.1.8 Now SET the MPV of the carbon filter on the "Rinse" position and start the raw water pump and carry out the rinsing operation for 10 minutes and Stop the pump.
- 6.1.9 SET the MPV of carbon filter on "FILTER" position along with the MPV of Softener on "SERVICE" position and open the valve SW- 1. Start the raw water pump for soft water generation. Check the pressure at the inlet of softener. Check the hardness of water at the outlet of the softener as per SOP. It should be less than 20 ppm.
- 6.1.10 If the hardness is not in the range; regenerate the softener as per SOP
- 6.1.11 Check the hardness of water after every 2 hours.
- 6.1.12 Check and record the reading as per the Annexure-I.

7.0 HISTORY

7.1 Details are given below.

SOP No.	REASON FOR CHANGE	EFFECTIVE DATE



PHARMA DEVILS

ENGINEERING DEPARTMENT

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8.0 ABBREVIATIONS: The abbreviations used in the SOP are:

- 8.1 SOP - Standard Operating Procedure
- 8.2 No. - Number
- 8.3 MPV - Multipurpose valve
- 8.4 RW - Raw Water
- 8.5 SW - Soft Water



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Annexure – I

SOFT WATER PLANT OPERATING AND REGENERATING LOG BOOK

S.No	Date	Time	Chlorine content of raw water (0.2 to 0.5 ppm)	Sand filter Inlet Pressure (2 to 2.5 Kg/cm ²)	Sand filter				Carbon filter										
					Backwash 10 min		Rinse 10 min		Backwash 10 min		Rinse 10 min								
					Start Time	Stop Time	Start Time	Stop Time	Start Time	Stop Time	Start time	Stop Time							

Softener						Hardness of soft water 0-20 ppm	Softener Inlet Pressure (1.5 to 2.0 Kg/cm ²)	Done by	Checked by
Rinse 10 min		Regeneration 30-40 min							
Start time	Stop time	NaCl 10 kg	Water 25 lts	Start Time	Stop time				

Verified by: _____

NaCl in stock: _____

Date : _____