

PHARMA DEVILS

ENGINEERING DEPARTMENT

STANDARD OPERATING PROCEDURE

Department: Engineering

Title: Replacement of Resin in Softener

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

To lay down a procedure for replacement of resins in softener.

2.0 SCOPE:

This SOP is applicable for regeneration of softener in purified water generation and distribution system.

3.0 RESPONSIBILITY:

Officer / Executive – Engineering

4.0 ACCOUNTABILITY:

Head – Engineering

5.0 **PROCEDURE:**

- 5.1 Open the mouth of the Softener vessel, remove the filter.
- **5.2** Connect the mouth with hose pipe, and start water pump, the sand shall come along with water, and collect in suitable container/bag.
- 5.3 Stop the pump & remove the hose pipe and drain the water in the vessel.
- **5.4** Then fill softener vessel with resin.
- 5.5 Place the filter on the mouth of the vessel.
- **5.6** Close the mouth of vessel air tight.
- 5.7 Record the Resign replacement details in Annexure-I.
- **5.8** Frequency: When the water output between the two regenerations found less than half. (The design specification is 60,000 ltrs per regeneration) or the regeneration shall be done if the hardness reaches more than 5 PPM.

6.0 **REFERENCES:** Manual.

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7.0 ANNEXURES:

ANNEXURES No.	TITLE OF ANNEXURE	FORMAT No.		
Annexure-I	Record for replacement of resins at softener			
ENCLOSURES: SOP training record				



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8.0 **DISTRIBUTION:**

- Controlled Copy No. 1 Head Corporate Quality Assurance
- Controlled Copy No. 2

Head Corporate Quality Assurance

- Head Engineering
- Master Copy
 Quality Assurance Department

9.0 ABBREVIATIONS:

SOP	Standard Operating Procedure
QA	Quality Assurance
QC	Quality Control
NaCl	Sodium Chloride

10.0 REVISION HISTORY:

CHANGE HISTORY LOG

Revision No.	Details of Changes	Reason for Change	Effective Date	Updated By
00	New SOP	Nil	Nil	Nil



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ANNEXURE – I

RECORD FOR REPLACEMENT OF RESINS AT SOFTENER

Area: Frequency: Location:

S.No. Date of resin Result of Charging of resin Result of Output of Done By Checked Remarks **Output of water** replacement before resin hardness hardness water after by replacement resin From То replacement