

ENGINEERING DEPARTMENT

Title: Operation and Cleaning of Cooling Tower

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

To lay down a procedure for Operation and Cleaning of Cooling Tower.

2.0 SCOPE:

This SOP is applicable for Operation and Cleaning of Cooling Tower.

3.0 RESPONSIBILITY:

Officer / Executive – Engineering

4.0 ACCOUNTABILITY:

Head – Engineering

5.0 ABBREVIATIONS:

ER Engineering

SOP Standard Operating Procedure

PVT. Private LTD. Limited

6.0 PROCEDURE:

- **6.1** Check the water level in Cooling Tower Sump.
- **6.2** Open the Inlet / Outlet valve of Circulation Pipeline.
- 6.3 Check the power supply in control panel and switch "ON" the control panel of Cooling Tower.
- **6.4** Push "START" circulation pump button of control panel to start the Circulation pump motor.
- **6.5** Push "START" fan button of control panel to start the Fan motor.
- **6.6** Check the load of Fan motor & Circulation pump motor.
- 6.7 Maintain the circulation pipeline pressure and temperature.
- **6.8** Makeup the water level in Cooling Tower sump continuously.
- **6.9** Following chemicals shall be used in cooling tower as frequency given below:
 - **6.9.1** Hydro Treat 7555 per day.
 - **6.9.2** Hydro Treat 7331/7333 –per week. Alternate



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- **6.10** Push "STOP" button of control panel to stop the Fan and Circulation Pump one by one.
- **6.11** Close the Inlet / Outlet valve of Circulation Pipeline.
- **6.12** Switch "OFF" the control panel.
- **6.13** Procedure for Cleaning of Cooling Tower:
 - **6.13.1** Switch off the power supply of cooling from control panel.
 - **6.13.2** Drain the water from sump through drain valve.
 - **6.13.3** During cleaning of cooling tower concern personnel shall wear appropriate safety equipment's.
 - **6.13.4** Manual clean the sump of cooling tower by nylon brush.
 - **6.13.5** After nylon brush cleaning, fill the sump with soft water & drain.
 - **6.13.6** Finally inspect the sump of cooling tower for proper cleaning and if found dirty then re-clean.
 - **6.13.7** Fill the sump with soft water upto desired level.
 - **6.13.8** Record the cleaning activity as per **Annexure II** (Log for Cleaning of Cooling Tower).

7.0 ANNEXURES:

ANNEXURE No.	TITLE OF ANNEXURE	FORMAT No.
Annexure-I	Log for Cooling Tower	
Annexure-II	Log for Cleaning of Cooling Tower	

ENCLOSURES: SOP Training Record

8.0 **DISTRIBUTION:**

Controlled Copy No. 01
Controlled Copy No. 02
Master Copy
Quality Assurance
Engineering
Quality Assurance

9.0 **REFERENCES**:

Operating Manual



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10.0 REVISION HISTORY:

CHANGE HISTORY LOG

Revision No.	Change Control No.	Details of Changes	Reason for Change	Effective Date	Updated By



Review Date:

PHARMA DEVILS

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ANNEXURE – I LOG FOR COOLING TOWER

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Machine No_ Hydro Treat – 7555 per day. Hydro Treat - 7331/7333 per week Alternate Chemical No. Checked By Chemical Receipt Operator Checked By Date Opening Receipt Consumption Closing Operator Opening Consumption Closing balance (Ltr.) balance Sign. No. balance (Ltr.) balance Sign. (ltr.) (ltr.) (ltr.) (ltr.)



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ANNEXURE – II LOG FOR CLEANING OF COOLING TOWER

Block:

D .		Cleani	ng time	Cleaning Done By	Review by	Remark
Date	Equipment ID	Start	Stop	Sign & Date	Sign & Date	