



PHARMA DEVILS

ENGINEERING DEPARTMENT

STANDARD OPERATING PROCEDURE

Department: Engeering

SOP No.:

Title: Operation of Treated Fresh Air Unit

Effective Date:

Supersedes: Nil

Review Date:

Issue Date:

Page No.:

1.0 REVISION HISTORY

Rev. No.	Details of changes	Reason for change
00	NIL	NEW SOP

2.0 OBJECTIVE

The objective of this SOP is:

- 2.1 To describe the procedure for operation of Treated Fresh Air (TFA) Unit.
- 2.2 To monitor the performance of the TFA.

3.0 SCOPE

- 3.1 This SOP is applicable for the operation of TFA at .

4.0 RESPONSIBILITY

- 4.1 The Plant Operator shall be responsible for:

- 4.1.1 The operation of TFA.
- 4.1.2 Monitoring the operation.
- 4.1.3 Reporting for abnormal behavior.

- 4.2 The Engineer shall be responsible for:

- 4.2.1 Corrective action in case of any deviation.
- 4.2.2 Verifying the performance parameters as per acceptance criteria.



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5.0 ACCOUNTABILITY

Head –Engineering Services.

6.0 PROCEDURE:

6.1 PRIMARY CHECKS:

- 6.1.1 Ensure that chilled water inlet and outlet valves are open. Open it, if required.
- 6.1.2 Open the steam inlet valve.
- 6.1.3 Ensure that the supply air damper and return air damper of TFA unit is open. Open it, if required.
- 6.1.4 Ensure that the condensate drain valve is open. Open it, if required.
- 6.1.5 Ensure that Wet Scrubber is started. Start it as per SOP No.

6.2 STARTING PROCEDURE:

6.2.1 AUTO MODE:

- 6.2.1.1 Put the selector switch in 'AUTO' mode.
- 6.2.1.2 Press the 'Control On' switch.
- 6.2.1.3 Put the 'RUN/HOLD' switch in 'RUN' mode.
- 6.2.1.4 Ensure that reactivation blower is started.
- 6.2.1.5 After 15-20 minutes ensure the following displays are 'ON'
 - 6.2.1.5.1 Bed Motor
 - 6.2.1.5.2 Process Motor
 - 6.2.1.5.3 Heater-1
 - 6.2.1.5.4 Heater-2
 - 6.2.1.5.5 Heater-3
- 6.2.1.6 Check the outlet temperature reactivation air. Initially it should be in



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between 120-140°C (Degree Centigrade).

6.2.2 MANUAL MODE:

- 6.2.2.1 Put the selector switch in 'MANUAL' mode.
- 6.2.2.2 Switch On the 'Control On' switches.
- 6.2.2.3 Switch 'On' the Reactivation blower.
- 6.2.2.4 Switch 'On' the Bed Motor.
- 6.2.2.5 Switch 'On' the Process Air Blower.
- 6.2.2.6 Switch 'On' the Heater-1.
- 6.2.2.7 Switch 'On' the Heater-2.
- 6.2.2.8 Switch 'On' the Heater-3.
- 6.2.2.9 Check the outlet temperature reactivation air. Initially it should be in between 120-140°C.

6.3 STOPPING PROCEDURE:

6.3.1 AUTO MODE:

- 6.3.1.1 Put the 'RUN/HOLD' switch in 'HOLD' mode.
- 6.3.1.2 Ensure that the following displays are glows 'Off'
 - 6.3.1.2.1 Heater-1
 - 6.3.1.2.2 Heater-2
 - 6.3.1.2.3 Heater-3
 - 6.3.1.2.4 Bed Motor
 - 6.3.1.2.5 Process Blower
 - 6.3.1.2.6 Reactivation Blower
- 6.3.1.3 Switch 'Off' the 'Control On' switch.

6.3.2 MANUAL MODE:



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- 6.3.2.1 Switch 'Off' the Heater-1.
- 6.3.2.2 Switch 'Off' the Heater-2.
- 6.3.2.3 Switch 'Off' the Heater-3.
- 6.3.2.4 Switch 'Off' the Process Air Blower.
- 6.3.2.5 Switch 'Off' the Bed Motor.
- 6.3.2.6 Switch 'Off' the Reactivation blower.
- 6.3.2.7 Switch 'Off' the 'Control On' switch.

7.0 ANNEXURES:

NIL.

8.0 References (S)

NIL.

9.0 Glossary

SOP : Standard Operating procedure
No : Number
TFA : Treated Fresh Air