

1.0 Objective

To describe the Operating Procedure for Air Handling Units, Exhaust, Supply and Ventilation Units.

2.0 Scope

This Standard Operating Procedure is applicable to the formulation plant of Pharmaceutical Company.

3.0 Responsibility

3.1 The Concerned Technician shall follow the Operating Procedure as per this SOP

3.2 The Officer/Executive-Engineering shall be responsible for implementation of the procedure as per this SOP.

4.0 Accountability

Head-Engineering/Designee shall ensure the compliance of the procedure as per this SOP.

5.0 Abbreviations and Definitions

BMS: Building Management System

DDC: Digital Display Control

MCC: Machine Control Center

RH: Relative Humidity

VFD: Variable Frequency Drive

RA: Return Air

AHU: Air Handling Unit

6.0 Procedure

6.1 In Manual Mode

6.1.1 Pre Startup Checkup

6.1.1.1 Ensure Power supply shall "ON" from MCC panel for all Air Handling Units, Exhaust and Supply and Ventilation Units.

6.1.1.2 Ensure Chilled Water and Hot water circulation is going on. Working Pressure of Chilled water and Hot water shall be more than 1 Kg/Cm².

6.1.1.3 All VFD's and Starters shall be in Manual/Local mode.

6.1.2 Starting Procedure

6.1.2.1 Start the core corridor AHU's along with exhaust unit to maintain positive pressure in core corridor.

6.1.2.2 Start the all other AHU's along with ventilation units after 10 minutes of Core Corridors AHU's and Global Exhaust Units.

6.1.2.3 Record all the data after every three hours as per Annexure-I.

6.2 In Auto Mode

6.2.1 Pre Startup Checkup

6.2.1.1 Ensure Power supply shall "ON" from MCC panel for all Air Handling Units, Exhaust and Supply and Ventilations Units.

6.2.1.2 Ensure Chilled Water and Hot water circulation is going on. Working Pressure of Chilled water and Hot water shall be more than 1 Kg/Cm².

6.2.1.3 All VFD's and Starters shall be in remote/auto mode.

6.2.1.4 UPS power supply to BMS and all DDC panels shall be "ON".

6.2.2 Starting Procedure

6.2.2.2 All AHUs, Global Exhaust, Global Supply and all ventilation Unit shall start through BMS which is Programmed for as per following sequence:-

6.2.2.3 Core Corridor's AHUs and Exhaust Unit shall start before 10 minutes of other AHUs as scheduled.

6.2.2.4 After 10 minutes all other AHUs, Supply and Ventilation Units shall start as scheduled.

6.2.2.5 All AHUs are programmed for Design Temperature and RH settings. If there is any change in room condition requirement then Engineering-Executive/ Officer can only change the setting.

6.2.2.6 There are three level securities Password in BMS login.

6.2.2.7 One is primary level for operator. Operator shall be authorized for data checking only he can also take printout of data like RA Temperature, RH.

6.2.2.8 Second level is for Engineering persons who can change the:

Room condition settings.

Change in Alarm setting.

To make new login for Operators

6.2.2.9 Third level is for Administrator. In this level only ABB Engineer is authorized to change all setting, Change password of Second Level and reprogram the system.

6.2.2.10 Record all the data after every three hours as per Annexure-I.