



STANDARD OPERATING PROCEDURE

TITLE: Operation and Inspection of Smoke Detection System

SOP No.:		Department:	EH	
		Effective Date:		
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1.0 OBJECTIVE:

To lay down a Procedure for Operation and Inspection of Smoke Detection System.

2.0 SCOPE:

This SOP is applicable for Operation and Inspection of Smoke Detection System at

3.0 RESPONSIBILITY:

Officer / Executive – EHS

4.0 ACCOUNTABILITY:

Head - Engineering

Head – EHS

5.0 ABBREVIATIONS:

AC	Alternating Current
EHS	Environment, Health and Safety
LED	Light Emitting Diode
MCP	Manual Call Point
QA	Quality Assurance
ID No.	Identification Number
SOP	Standard Operating Procedure

6.0 PROCEDURE:

6.1 Fire Alarm System:

Fire causes major damage to the product as well as to the plant and machineries, in some cases it may be fatal. It is better to prevent fire at right time by safe practices and not by fire fighting that is why Smoke Detection System is installed. This is analogue addressable fire system (Make: - FIRELITE & Model No.: MS-9600 LS).

6.2 Below mentioned are the details related with different components of Fire Alarm System.

6.2.1 Detector:

6.2.1.1 There are three types of Detectors which are analogue photoelectric, analogue photo/thermal and analogue heat detectors. The status LED can be programmed It is in order to confirm that it is in communication with the Fire Alarm control panel. Whenever detector becomes activated through smoke / Heat it sends signal to the panel. Panel display the same zone and loop with detector no. in which it has been programmed.

6.2.1.2 Each loop of the Fire panel can accommodate up to 318 addresses this includes detectors, call points and all other addressable items.



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6.2.1.3 Sensing Time: 01 to 03 Second.

6.2.1.4 The detector gives signal to Hooter. The indicator in the detector LED becomes blink red continuously after sensing the smoke/ Heat.

6.2.1.5 Detector senses smoke using the light scatter principle.

6.2.1.6 Clean the detectors at least once a month to remove dust, dirt or debris.

6.2.2 Hooter cum transmitter:

6.2.2.1 The hooter gets signal from detector and transmits the same to Control Panel and sound output 85 dB.

6.2.3 Manual Call Point:

6.2.3.1 The hooter can be actuated with these MCP's and also they can be silenced with the Silent Button of Main Panel. Every hooter has its own specific MCP.

6.2.4 Fire Alarm Panel:

6.2.4.1 This is addressable microprocessor based on 2 loops Detectors Fire Alarm Panel with Batteries, Charger and Repeater Panel installed in Security Room & Main Panel installed in main entrance of P-Block, G-Block & F-Block Ground floor.

6.2.4.2 The panel shows the specific zone and loop with detector number area of detector which detects smoke/heat.

6.2.4.3 The panel has inbuilt batteries and require power supply to charge these batteries. It works even 24 hours of the power failure.

6.2.5 Siren:

6.2.5.1 This siren is of 01 Km range with stand and timer.

6.2.5.2 The siren blows if the control panel detects any emergency. It is powerful Siren and works on AC supply only. If there is power failure, it will not blow. However this area is connected with Diesel Generator set.

6.3 What to do in case of fire alarm sounds:

6.3.1 A safety person shall be available round the clock to handle the panel kept in Security Office with the List of smoke detector and hooter.



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6.3.2 As panel sounds the person available with panel immediately rushes to the location of the detector after identification of detector zone with list.

6.3.3 The person shall check the area. If it is false alarm then he shall find the reason of alarm and clean the detector. The detector and reattach it in its place and inform to area in charge or head.

6.3.4 If fire happens then he shall take response action according to the procedure mentioned in On-Site Emergency Plan.

6.4 Officer / Executive EHS shall prepare a Smoke Detectors and MCP's list individual location wise as per **Annexure-I** and conduct inspection of Smoke Detection System as per **Annexure-II**.

7.0 ANNEXURES:

ANNEXURE No.	TITLE OF ANNEXURE	FORMAT No.
Annexure-I	Smoke Detector & Fire Alarm Location Chart	
Annexure-II	Smoke Detector System Monthly Inspection Report Card	

8.0 DISTRIBUTION:

- Controlled Copy No. 01 Head Quality Assurance
- Controlled Copy No. 02 Head EHS
- Master Copy Quality Assurance Department.

9.0 REFERENCES:

Not applicable

10.0 REVISION HISTORY:

CHANGE HISTORY LOG

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



PHARMA DEVILS

ENVIRONMENT HEALTH SAFETY DEPARTMENT

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ANNEXURE-I



PHARMA DEVILS

ENVIRONMENT HEALTH SAFETY DEPARTMENT

SMOKE DETECTOR & FIRE ALARM LOCATION CHART

Fire Alarm Control Panel No.:

Block:

S.No.	Device ID No.	Floor	Device Location	Type of Device	Zone

L	LOOP OF DEVICE	SD	SMOKE DETECTOR (PHOTO OPTICAL)
D	DETECTOR	MCP	MANUAL CALL POINT
HD	HEAT DETECTOR	FACP	FIRE ALARM CONTROL PANEL
MSD	MULTI DETECTOR (SMOKE (PHOTO) + HEAT)	CM	CONTROL MODULE

