Fire Suppression System

Log Book

For control panel, Sequential Activators and FirePro Condensed Aerosol Generators as per System Design

Keep Readily Available For Inspection

Protect logbook by storing it in a safe place next to the Fire Extinguishing Panel and a copy in to a safety box.

CONTENTS OF LOG

1.0

This fire suppression system must be inspected, tested, maintained every year.

All events related to the fire suppression system need to be recorded without exception in this logbook, e.g. fire extinguishant alarms, failures, checks, repairs and changes made. This procedure provides a continuous documentation concerning the actual status as well as the operation condition of the fire suppression system. We would therefore advise you to record every event, and particularly the periodical checks, in this logbook upon occurrence and/or completion. The only people authorized to make entries into the logbook are the manager (Trained Person), the contractor or his maintenance expert (ME).

Failures that cannot be solved immediately need to be reported to the contractor at once.

In case performance requirements regarding 'real fire alarm', undesired fire notification' or 'false fire notification' are listed in the Operational Requirements, this must be reported in this logbook.

During the yearly check, the manager (trained person) and the maintenance expert will use this statistic to evaluate the performance of the operational requirements and take action if necessary.

2.0 GENERAL DATA

Useful Project Details

Project number.....

Date of completion:[...../...../.....].....

Building.....

Address of premises.....

.....

Owner / Manager.....

Dealer.....

Fire Detection Company.....

Contractor.....

Maintenance:....[Y/N].....Serial# [.....].....Date:[...../...../.....].....

Trained Person.....

Relay alarm fire.....

Location of log book.....

Useful Telephone Contacts

In Emergency Dial.....

Fire Safety Department.....

Emergency Service Control Room.....

Fire Safety Officer.....

Fire Extinguisher – Repairs.....

Fire Alarm – Repairs.....

Building Maintenance.....

I have read this document and understand its contents

Owner / Manager...[Name].....[.....]

Owner / Manager...[Signature].....[.....]

Date: [...../...../.....]

3.0 EQUIPMENT IN USE - FIRE SUPPRESSION SYSTEM DESIGN

FIRE CONTROL PANEL & ACCESSORIES – SYSTEM DESIGN

	Brand	Model	Quantity	Location
Ext. Control Panel				
Backup Batteries				
Smoke Detector				
Heat Detector				
Flame Detector				
Linear Heat Detector				
Isolation Switch / Abort Button				
Gas Release MCP				
Bell				
Siren and Strobe				
Gas Release Sign				
Auto Dialler				
External Power supply				
Backup Batteries				

FirePro CONDENSED AEROSOL GENERATORS – SYSTEM DESIGN

Generator	ID	Location	Type (*)	Location	Seq.Activator		ID
Generator	01				Sequential Activator	A	01
Generator	02					B	02
Generator	03				Sequential Activator	A	03
Generator	04					B	04
Generator	05				Sequential Activator	A	05
Generator	06					B	06
Generator	07				Sequential Activator	A	07
Generator	08					B	08
Generator	09				Sequential Activator	A	09
Generator	10					B	10
Generator	11				Sequential Activator	A	11
Generator	12					B	12
Generator	13				Sequential Activator	A	13
Generator	14					B	14
Generator	15				Sequential Activator	A	15
Generator	16					B	16
Generator	17				Sequential Activator	A	17
Generator	18					B	18
Generator	19				Sequential Activator	A	19
Generator	20					B	20
Generator	21				Sequential Activator	A	21
Generator	22					B	22
Generator	23				Sequential Activator	A	23
Generator	24					B	24
Generator	25				Sequential Activator	A	25
Generator	26					B	26
Generator	27				Sequential Activator	A	27
Generator	28					B	28
Generator	29				Sequential Activator	A	29
Generator	30					B	30
Generator	31				Sequential Activator	A	31
Generator	32					B	32
Generator	33				Sequential Activator	A	33
Generator	34					B	34
Generator	35				Sequential Activator	A	35
Generator	36					B	36
Generator	37				Sequential Activator	A	37
Generator	38					B	38
Generator	39				Sequential Activator	A	39
Generator	40					B	40

4.0 ENGINEERING

In this section insert engineering drawings and large sketches. Must be noted in the below list by reference: number, title, date and short description of what the drawing portrays.

S/N	Reference number	Date	Title	Short description
1				
2				
3				
4				
5				

5.0 COMMISSIONING OF THE FIRE SUPPRESSION CONDENSED AEROSOL SYSTEM

This method statement is applicable for the FirePro Total Flooding Condensed Aerosol Fire Suppression System

5.1 COMMISSIONING OF THE FIRE CONTROL PANEL

5.1.1
Before applying power to the Fire Extinguishant control panel, the extinguishant device (FirePro Sequential Activators / FirePro Condensed Aerosol Generators) must be physically isolated from the system by disconnecting all four wires. This will prevent any accidental activation of the Fire Condensed Aerosol Generators.

5.1.2
When electrical power is applied to the Fire Extinguishant control panel, if all connections are correct, only the green Power On and either the Automatic and Manual or Manual Only indicators should be lit. If any fault indicators are lit the wiring to the appropriate input or output should be checked an all faults cleared before proceeding.

5.1.3
Once the Fire Extinguishant control panel is fault free, it can be configured with the desired options as described in "Programming and operation" of the FirePro control panel Installation and Operation manual, provided as part of the documentation.

5.1.4
Once the Fire Extinguishant control panel has been configured the system should be thoroughly tested to ensure that the Fire control panel responds as expected and required.

5.1.5
After satisfactory testing, all final connections circuit continuity should be verified (no fault on the Extinguishing Line)

5.1.6
A record of the configuration options that have been set should be recorded.

5.2 COMMISSIONING - SEQUENTIAL ACTIVATORS – CONDENSED AEROSOL GENERATORS

To confirm that the wiring to sequential activators is correct, 24V simulation lamps (or similar as per Fire Extinguishant control panel requirements) can be fitted in place of the Condensed Aerosol Generators and the Fire Extinguishant control panel activated to ensure that all simulation lamps light when the release signal is sent.

Note: if all the simulation lamps are removed and replaced with the Condensed Aerosol Generators at once it will not be possible to diagnose connection faults if they exist.
If the circuit has been set up using simulation lamps it should be re-set once all FirePro® Condensed Aerosol Generators have been fitted.

FirePro Condensed Aerosol Generators must be connected via FirePro sequential activators. Each sequential activator can have 2 Condensed Aerosol Generators connected to it and up to 20 sequential activators in total can be connected to the Fire Extinguishant control panel. Connect FirePro Sequential Activators to the FirePro® Fire Extinguishant control panel only.

Note: FirePro Control Modules do not require the use of sequential actuators.

Each FirePro Sequential Activator introduces a nominal delay gap of 0.45 seconds before the next Sequential Activator in line is operated. Each Sequential Activator triggers for 2.25 sec (in total) the two Condensed Aerosol Generators that can be connected to it. Both time factors must be considered when setting the Extinguishant Duration time for the system. It is thereby recommended to set the Fire Extinguishant control panel Extinguishant Duration time to 60sec, minimum, when all 40 x Condensed Aerosol Generators are connected to the panel (e.g. 20 x S.A. – 40 x Aerosol Generators).

Even if a much smaller number of Condensed Aerosol Generators is connected to the Fire Extinguishant control panel the same Extinguishant Duration time may be used so that enough time is allowed for all Condensed Aerosol Generators to be activated.

The approximate maximum length of FP200 fire rated cable or equivalent allowed to be installed on the extinguishing output/line shall be as follows:

1.0 mm2 - 190 m 1.5 mm2 - 270 m 2.5 mm2 – 470 m

Above figures/lengths provided are indicative only. Proper calculation of the total resistance of the extinguishing line should be calculated, taking into consideration all contributing factors prior to deciding on the cable size to be used and max length allowed.

5.3 COMMISSIONING TEST PROCEDURES BY SERVICE EXPERT

Note: It is important that operations for testing do not result in unwanted situations. Before start please do the followings:-Ensure that the system will not activate the Condensed Aerosol Generators (PHYSICALLY ISOLATE CONDENSED AEROSOL GENERATORS)		
	Notes	Comments
1	Physically isolate Sequential Activators / Condensed Aerosol Generators from the system.	
2	Power the system. Correct any faults before processing.	
3	Ensure that the Fire Extinguishant control panel responds as expected.	
4	Connect to the system (1) Sequential Activators.	
5	Remove the end of line component from the Fire Extinguishant control panel. Connect it to the last Sequential Activator.	
6	Connect all simulation lamps in place of Aerosol Generators and activate the isolation switch.	
7	Activate the system and ensure that all simulation lamps, light.	
8	Disconnect the simulation lamps from all Sequential Activators and measure the resistance of the Condensed Aerosol Generators to ascertain the normal resistance value.	
9	Connect the Condensed Aerosol Generators to the system.	
10	Upon completion, a certificate is issued to the responsible person.	
11	Visually inspect the room for possible openings / leakages.	

6.0 MANAGEMENT BY USER

During its use, the fire suppression system needs to be kept in operational condition. To this end, at least the following activities are required:

6.1 MANAGER (TRAINED PERSON)

Persons trained and instructed to act as manager (trained person). A person is to be regarded as competent for the purposes of the Fire Suppression System where he has sufficient training and experience or knowledge and other qualities to enable him properly to assist in undertaking the preventative and protective measures.

Date	Name	Responsibility

6.2 PERIODICALLY CHECKS AND PRECAUTIONARY MAITENANCE BY TRAINED PERSON (as per local regulations)

DAILY CHECKS

Check that the Fire Extinguishant Control Panel ascertain that it shows normal operational (panel power and trouble light).

	J	F	M	A	M	J	J	A	S	O	N	D	Comments
01													
02													
03													
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05													
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31													

Note: Record problems found in the History log.

MONTHLY CHECKS

Year Planner:

	Comments	J	F	M	A	M	J	J	A	S	O	N	D
01	Visual check Fire Extinguishant Control Panel to ascertain that it shows normal operation.												
02	Visual check fire department panel.												
03	Visual check relay panels if any.												
04	Visual check of the Condensed Aerosol Fire Suppression System.												
05	After consultation with the fire reporting station, check the relay for fire alarms by activating an alarm within the system.												
06	Check the relay for failure alarms, e.g. by interrupting the primary power supply.												
07	Check the correct reception of failure alarms.												
08	Check visually whether manual “fire alarms” are easy to reach.												
09	Check visually whether, both horizontally and vertically, the smoke detectors and the thermal detectors are at least 30 cm away from inventory.												
10	Check visually whether all fire alarms are in a condition to function properly.												
Note: Record problems found in the History log.													

AT LEAST 4 & 8 MONTHS AFTER DELIVERY AND AFTER SERVICING BY THE CONTRACTOR

Year Planner:

	Comments	J	F	M	A	M	J	J	A	S	O	N	D
01	Check whether within the detection zones there have been any changes to the use or layout of the areas, the ventilation system or structures.												
02	Check whether the alarm organization plan still matches the current provisions.												
03	Check whether the operational regulations, installation floor plans, block diagrams, functional matrices etcetera fit the actual situation.												
04	Check the alarm function of all alarm groups.												
05	Record the findings of all tests in this logbook.												
06	Clean the exterior of the equipment.												
Note: Record problems found in the History log.													

6.3 PERIODICALLY CHECKS AND PRECAUTIONARY MAITENANCE BY SERVICE EXPERT

Year Planner:

Note: It is important that operations for testing do not result in unwanted situations. Before start please do the followings:

-Ensure that the system will not activate the Condensed Aerosol Generators (PRESS THE ISOLATION SWITCH / ABORT BUTTON)

-Ensure that the alarm signal will not reach receiving center. (DISCONNECT VOICE COMMUNICATION SYSTEM)

	Notes	Comments
	Visual inspections:	
01	Visually inspect Fire Extinguishant Control Panel to ascertain that it shows normal operation.	
02	Visually inspect the Fire Extinguishant Control Panel for signs of moisture ingress or other deterioration.	
03	Visually inspect whether structural or occupancy changes have affected the requirements for the sitting of isolation switch / abort button, manual activation, detectors and sounders, sequential activators.	
04	Visually inspect to confirm that a clear space of at least 30cm is preserved in all directions below each detector. All points remain unobstructed.	
05	Visually check that all cable fittings and equipment are secure, undamaged and adequately protected.	
06	Visually inspect that the Condensed Aerosol Generators remain unobstructed.	
07	Visually inspect, ensure that the Condensed Aerosol Generators have the appropriate discharge length.	
08	Visually inspect the room for possible openings / leakages.	
	Fire Alarm Extinguishing control panel check:	
09	Inspect backup batteries. Examine batteries, their connections and testing.	
10	Simulate batteries failure. Ensure that the battery fault condition is activated.	
11	Check all ancillary functions of the extinguishing control panel, where possible.	
12	Check all fault indicators and circuits by simulating a fault condition.	
13	Simulate mains power supply failure and ensure that the backup batteries are providing the required power.	
	Extinguisher Check:	
14	Remove the E.O.L. component from the last sequential activator. Ensure that the Fire Extinguishant control panel detects the fault.	
15	Check activator wire and resistance. From sequential activator, disconnect the activator cable. By using an ohm meter ensure that the resistance of the activator is between 1.6-3.0 Ohms.	
	Clean Detector:	
16	Clean each detector for correct operation.	
	Check Alarm Conditions:	
17	Check that the Fire Suppression System is capable of operating under alarm conditions by operating at least one detector on one circuit (zone or loop) at a time.	
18	Check each detector for correct operation.	
19	Check each alarm sounder for correct operation.	

	Check voice communication system:	
20	Check dialer trigger that automatic link to remote centers, if any.	
21	Check dialer messages.	
	Simulate extinguishing alarm conditions:	
22	(1) Alarm Input Zone 1 of the Fire Extinguishant Control Panel -Ensure that the control panel detects the alarm and the 1st stage is activated. -Ensure that the 1st stage Horn/Strobe is active.	
23	(2) Alarm Input Zone 2 of the Fire Extinguishant Control Panel -Ensure that the Control Panel detect the alarm and the 2nd stage is activated. -Ensure that the 2nd stage Horn/Strobe is activated and the Gas Release Sign indication is activated.	
24	Ensure that the voice communication system activated.	
25	Ensure that the extinguishing line is activated.	
	Commissioning	
26	De-activate the Isolation Switch / Abort Button	
	Ventilation Inspection:	
27	Inspect venting to Aid Fire Suppression System.	
28	Inspect Fire Dampers and Fire Stop Flaps	
	Logbook:	
29	Check entries to logbook and ensure that necessary actions are taken.	
30	Record any defects in a logbook	
	Certificate:	
31	Upon completion, a certificate of testing is issued to the responsible person.	
Note: Record problems found in the History log.		

Date:[……../……../……..] Signed:[……]

Name Signed:[……]

7.0 HISTORY LOG

HISTORY LOG Record all the actions taken regarding the Fire Extinguishing System Inspections, Problems, Actions, Maintenance, False Alarms, Incidents, Repairs etc					
	>Trained Person >Installer >FirePro Dealer	>Fire Ext.Panel >Detector >Seq. Activator >Other	>Room >Det. Number >Panel Number >Seq.Acti.Number >Other	>Periodically checks >precautionary maint.by Ser.Expert >Maintenance by trained person >Info. Installing Com. >Other	>User in Charge >Other
DATE	User	Device	Location / Number	Action Taken	Signature

HISTORY LOG

Record all the actions taken regarding the Fire Extinguishing System Inspections, Problems, Actions, Maintenance, False Alarms, Incidents, Repairs etc

	>Trained Person >Installer >FirePro Dealer	>Fire Ext.Panel >Detector >Seq. Activator >Other	>Room >Det. Number >Panel Number >Seq.Acti.Number >Other	>Periodically checks >precautionary maint.by Ser.Expert >Maintenance by trained person >Info. Installing Com. >Other	>User in Charge >Other
DATE	User	Device	Location / Number	Action Taken	Signature

8.0 CERTIFICATION

CERTIFICATION OF CONDENSED AEROSOL FIRE SUPPRESSION SYSTEM

This is to confirm that the following Fire Suppression System,

of the company / client [……],

located at [……],

has been designed in accordance to the applicable National, International, Local Standards, Laws and Regulations. In addition, the above mentioned system has been designed, installed, commissioned and tested as per manufacturer's (FirePro Systems) Specifications, Instructions and Guidelines.

	Full Name	Title	Signature	Date:
Designed by: Contractor / Consultant / Installer	----------	----------	----------	----------
Installed by: Contractor / Installer	----------	----------	----------	----------
Reviewed by: System Validation * See note d.	----------	----------	----------	----------

DISCLAIMER:

a. Any information provided by FirePro Systems, relevant to the design and application of the project is solely for guidance purposes and can be considered as such only.

b. It is, therefore, the contractor's sole responsibility to verify whether the above circuit design is functional with the equipments used in his Application / System design.The responsibility to produce the actual design documentation, such as construction and as-built drawings, circuit diagrams, specifications etc., falls within the scope of the contractor responsible for the installation and commissioning (and certification if applicable) of the project. It is, therefore, the contractor's sole responsibility to ensure that all applicable National, International and local standards, laws and regulations are followed and applied.

c. Cable sizes are indicative since they can vary depending on actual cable lengths and respective voltage drop calculations, which do not fall within the scope of FirePro Systems.

d. System Validation refers to compliance with the guidance of the FirePro User Manual in respect to the relevant standard.

DISCLAIMER

FirePro Systems makes no representations or warranties of any kind, either express or implied, statutory or otherwise, including but not limited to warranties of merchantability, fitness for a particular purpose, of title, or of non-infringement of third party rights, including the intellectual property rights of others.

Any information provided by FirePro Systems, relevant to the system engineering of the project is indicative and for guidance purposes only.

LIMITATION OF LIABILITY

In no event, regardless of cause, shall FirePro Systems be liable for any indirect, special, incidental, punitive or consequential damages of any kind, whether arising under breach of contract, tort (including negligence), strict liability or otherwise, even if advised of the possibility of such damages.

NOTE

FirePro is constantly updating its products and systems to the state of the art and therefore reserves the right to make changes in design, equipment and technology. You cannot therefore base any claims on the data, illustrations or descriptions contained in this literature.

Address:
Tel.:
Email: