

GAS SUPPRESSION SYSTEM LOGBOOK



2025

14TH January 2025

COMPANY LOGO

Introduction

A logbook needs to be issued for every system installed and kept for the purpose of recording all events that occur in respect of the system, including fire signals, fault signals and work on the system.

The logbook must be mounted adjacent to ALL fire panels and repeater panels.

The following information should be recorded in the logbook:

- The name of the responsible person
- Details of the installer
- Brief details of maintenance arrangements
- Non-compliance items
- User responsibilities
- Testing by the user
- Inspections and testing
- Dates and times and results of daily inspections
- Dates and times of all fire alarm signals
- Dates, times, and types of all false alarms
- Dates, times and types of all faults and defects
- Causes, circumstances surrounding and category of all false alarms
- Dates and types of all maintenance (e.g. service visit etc)

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GAS SUPPRESSION SYSTEM LOGBOOK

Site information

CUSTOMER:	
Address:	
Responsible person:	
Tele. No:	Email:

INSTALLER INFORMATION:	
Company:	
Contact Person:	
Tel:	Email:
Installation Date:	

SYSTEM DESIGNER:	
Name:	Company:
Contact No:	Email:
Standard designed to	

COMMISSIONER:	
Name:	Company:
Contact No:	Email:

INSTALLER:	
Name:	Company:
Contact No:	Email:
System installation date	

SYSTEM VERIFICATION DONE BY:	
Name:	Company:
Contact No:	Email:

SYSTEM ACCEPTANCE BY:	
Name:	Company:
Contact No:	Email:

GAS SUPPRESSION SYSTEM LOGBOOK

System information

AREAS COVERED BY GAS SUPPRESSION SYSTEM:		
Room usage:		
STANDARD/CATEGORY		
SANS Standard used		
Building occupancy (SANS 10400):		
System category (SANS 246) if applicable		
FIRE DETECTION ITEMS		
EQUIPMENT	MAKE	QTY
Fire panel		
Repeater panels		
Gas control panels		
Smoke detectors		
Heat detectors		
Audible/ Visual devices		
Multi criteria detectors		
Aspiration detectors		
Manual Call Points		
Interface devices		
Other devices		
GAS SUPPRESSION ITEMS		
EQUIPMENT	MAKE	QTY
Gas type		
Cylinder manufacturer		
Design concentration		
Volume of protected space		
Pre-engineered system		Y/N
Engineered system		Y/N
Total flooding CO2 system		Y/N
Local application CO2 system		Y/N
Actuation type		
Pipe specification		
Pipe fitting specification		
Room pressure vents		
Room integrity test		Y/N

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Servicing company information

SERVICE COMPANY:	
Name:	Company:
Contact No:	Email:
Emergency contact No:	
Contract start date:	End date:
Normal maximum attendance time	
Maintenance Intervals:	
Service date 1	
Service date 2	
Service date 3	
Service date 4	
Expiry date of service contract	

The fire detection system shall be tested and serviced every 3 months and the mechanical part of the installation every 6 months.

Non compliances/ variations

The following non compliances and/ or Variations to the national standard are included in the design of this system.

GAS SUPPRESSION SYSTEM LOGBOOK

WEEKLY INSPECTION LOG SHEET

Week No	Signature		Week No	Signature		Week No	Signature
1			19			37	
2			20			38	
3			21			39	
4			22			40	
5			23			41	
6			24			42	
7			25			43	
8			26			44	
9			27			45	
10			28			46	
11			29			47	
12			30			48	
13			31			49	
14			32			50	
15			33			51	
16			34			52	
17			35				
18			36				

GAS SUPPRESSION SYSTEM LOGBOOK

FIRE ALARM LOG

Date	Time	Event (e.g. test, fire alarm signal, fault)	Zone (Where applicable)	Device (Where applicable)	Action required (Where applicable)	Date completed (Where applicable)	Initials

GAS SUPPRESSION SYSTEM LOGBOOK

FIRE ALARM LOG

Date	Time	Event (e.g. test, fire alarm signal, fault)	Zone (Where applicable)	Device (Where applicable)	Action required (Where applicable)	Date completed (Where applicable)	Initials

GAS SUPPRESSION SYSTEM LOGBOOK

FALSE ALARM LOG

Date	Time	Zone	Device that triggered the alarm signal	Cause (If known)	Brief circumstances. (Where cause is unknown, record activities in the area)	Maintenance visit required (Yes/No)	Findings of maintenance technician (where applicable)	Category of false alarm	Further action required (where applicable)	Action completed (where applicable)

GAS SUPPRESSION SYSTEM LOGBOOK

FALSE ALARM LOG

Date	Time	Zone	Device that triggered the alarm signal	Cause (If known)	Brief circumstances. (Where cause is unknown, record activities in the area)	Maintenance visit required (Yes/No)	Findings of maintenance technician (where applicable)	Category of false alarm	Further action required (where applicable)	Action completed (where applicable)

GAS SUPPRESSION SYSTEM LOGBOOK

MAINTENANCE WORK LOG

Date	Time	Zone	Device	Reason for work (Where applicable)	Work carried out (Where applicable)	Further work required	Signature

[illegible]

Users' responsibilities - Responsible person

The user needs to appoint a single, named responsible person to supervise all matters pertaining to the fire alarm and gas suppression system. The role of the responsible person is to ensure that the system is tested and maintained in accordance with the recommendations of the relevant South African standard, that appropriate records are kept and that relevant occupants in the protected premises are aware of their roles and responsibilities in connection with the fire alarm and gas suppression system. It also needs to be the duty of the responsible person to ensure that necessary steps are taken to avoid situations that are detrimental to the standard of protection afforded by the system and to ensure that the level of false alarms is minimized.

The following recommendations and duties apply:

- a) A single, named responsible person should be appointed to supervise all matters pertaining to the fire alarm and gas suppression system. The responsible person should be given sufficient authority to carry out the duties described in this sub clause and should normally be the keeper of the documentation.
- b) They should ensure that the control and indicating equipment is checked at least once every 24 h to confirm that there are no faults on the system and the gas control switch is in automatic mode or manual if the room is occupied.
- c) They should ensure that arrangements are in place for testing and maintenance of the system.
- d) They should ensure that the system logbook is kept up to date and is available for inspection by any authorized person (e.g. representatives of enforcing authorities and property insurers).
- e) They should ensure that all relevant occupants of the protected premises are instructed in the proper use of the system. Care should be taken to ensure that relevant occupants are able to interpret fire, pre-alarm, and fault indications, and that they are adequately familiar with the appropriate controls, including those associated with initiation of fire alarm signals, silencing of fire alarm signals, resetting the system and isolation and activation of the gas release signal.

Relevant occupants should also be instructed in the facilities for disablement of the fire alarm system and the gas suppression system and the circumstances in which they should, and should not, be used.

- f) The responsible person should ensure that appropriate action is taken to limit the rate of false alarms.
- g) The responsible person should ensure that a clear space of at least 500 mm is preserved in all directions around and below every fire detector, and that all manual call points remain unobstructed and conspicuous.
- h) The responsible person should ensure that a clear space is maintained around all discharge nozzles of the gas suppression system.
- i) The responsible person should ensure that the gas suppression system pipe work is fixed rigidly and that gas cylinders and their contents are checked regularly.
- j) The responsible person should establish a liaison between those responsible for changes in, or maintenance of, the room fabric (including redecoration etc.) to ensure that the work does not unnecessarily compromise the protection afforded by the system, create system faults, or cause false alarms. If structural or occupancy changes occur or are planned, the responsible person should ensure that any necessary changes to the fire alarm and gaseous suppression system are considered at an early stage. Any change to the volume of a gas protected space must entail a re-design of the gas suppression system.
- k) When changes are made to the system, the responsible person should ensure that record drawings and operating instructions are updated.
- l) The responsible person should ensure the gas system is locked off/isolated during any servicing of the air conditioning system.

Spare Parts

- l) The responsible person should ensure that the following spare parts are held within the premises:
 - 1) Two frangible elements and appropriate tools for manual call points,
 - 2) Such other spare parts agreed between the user and the organization responsible for servicing the system.

Daily checks by the user

The responsible person should check that the control and indicating equipment to confirm that there are no faults or alarms on the system and the gas control switch is in automatic mode or manual if the room is occupied.

Weekly checks by the user

When testing the fire detection and gas suppression system any ancillary outputs should be isolated.

The following recommendations apply:

- a) Visually inspect the hazard and the integrity of the enclosure
- b) Visually inspect the gas pipe work to ensure it is firmly fitted and free from rust and damage.
- c) Visually inspect the gas discharge nozzles and smoke detectors to ensure they are unobstructed.
- d) The Gas Control Unit/panel must be checked to ensure the "power" light is illuminated and there are no alarms indicated
- e) Check that the key switch is in the auto position when the room is unmanned and manual if the room is occupied.
- f) Check the pressure gauges on the cylinders to ensure no loss of gas pressure has occurred. The needle should be in the green section of the gauge

Monthly checks by the user

It must be checked that all users of the gas suppression system are versed in the use of all controls and operation procedures of the gas suppression system. This applies particularly to new employees.

Inspection and servicing

It is essential that the system is subject to periodic inspection and servicing so that un- revealed faults are identified, preventive measures can be taken to ensure the continued reliability of the system, false alarm problems are identified and suitably addressed, and that the user is made aware of any changes to the room that affect the protection afforded by the system.

Periodic inspection and servicing need to be carried out by a competent person with specialist knowledge of fire detection and gaseous suppression systems, including knowledge of the causes of false alarms sufficient information regarding the system, and adequate access to spares.

This will normally be an outside fire alarm servicing organization; care needs to be taken to ensure that, if, for example, in-house employees are used for this task, they have equivalent competence to the technicians of a typical fire alarm and gaseous suppression servicing organization.

Technicians who work on the system should be registered at the SAQCC Fire as authorised persons gas suppression.,

Recommendations for periodic inspection and testing of the system

The recommendations in this clause should be carried out by a competent person.

The period between successive inspection and servicing visits should be based upon a risk assessment, taking into account the type of system installed, the environment in which it operates and other factors that may affect the long-term operation of the system.

The recommended period between successive inspection and servicing visits should not exceed three months for the fire detection system and six months for gas suppression system.

If a risk assessment shows a need for more frequent inspection and servicing visits, then all interested parties should agree the appropriate inspection and servicing schedule.

Gas cylinders must be hydrostatically tested every 10 years.

Gas hoses should be hydraulically tested every 5 years.

If this recommendation is not implemented, it should be considered that the system is no longer compliant to the South African standard.

It is an offense not to maintain fire equipment.

Alarms

Action in the event of a fire alarm

Any alarm from a gas suppression protected area should be taken seriously and responded to with immediate effect.

- a) Determine and thoroughly inspect from whence the alarm has originated. This can be determined from the fire panel zone indicators.
- b) If a fire is discovered inspect the area to ensure the area is clear of people
- c) Carry out the predetermined fire routine to extinguish the fire (use handheld extinguishers – not water).
- d) If the fire is large or out of control lift the flap on the yellow call point and break the glass or operate the button.

Call the fire brigade.

- e) If no fire is discovered switch the control to “Manual” to prevent the gas from discharging and investigate the area of alarm and determine if there are visible signs of a fire. If one cannot see flames or smoke, inhale deeply and determine if you can smell any burning.
If there is no sign of anything burning investigate the area for signs of smouldering, burns or chemicals in the air. Record the events or activities near the suspect detector in the logbook and, if there is need for work to be undertaken on the fire alarm system, inform the maintenance company.

Action in the event of false alarms

The user should arrange for suitable investigation and action to be taken on every occasion that a false alarm occurs.

- a) The user should record appropriate details regarding every false alarm that occurs. Information recorded should include the following:
 - Date and time
 - Identity and location of device (if known)
 - Category of false alarm (if known)
 - Reason for false alarm (if known)

- Activity in the area (if the reason for the false alarm is unknown)
 - Action taken
 - The person responsible for recording the information.
- b) At the time of every service visit, the system false alarm record should be checked and rectified immediately by the appointed service organisation.
- c) Where temporary work involving the generation of dust, smoke, paint spray, etc. is to be carried out in an area protected by a gas suppression system the gas actuator must be disconnected, the system turned to manual and precautions should be taken to prevent unwanted alarms. One method of managing such work would be the operation of a permit to work system.

On completion of the work, the responsible person appointed by the user to manage the system should ensure that proper reinstatement of the protection occurs.

- d) All false alarms should be properly recorded by the user in the system logbook.

Weekly checks

The responsible person shall conduct the following weekly tests to ensure

- a) The integrity of the enclosure is checked. (No new cable holes have been opened).
- b) The gas pipe work is inspected to ensure it is firmly fitted.
- c) The Gas Control Unit/Panel is checked for any alarm and that the key switch is in the correct position. (Automatic when the room is unmanned and Manual if the room is occupied.)
- d) The pressure gauges on the cylinders are checked to ensure no loss of gas pressure has occurred.
- e) The gas discharge nozzles and smoke detectors are inspected to ensure they are unobstructed.

Record all results in the weekly inspection log sheet

END OF DOCUMENT