

Gaseous Suppression System

Last Issue Date: 07/10/2020		Type Of Service				
Activity		A	B	C	D	E
1	Before tests commence: a) Notify the building occupier / site representative. b) If appropriate, advise the Fire Control Station. c) Ensure all ancillary facilities are isolated. d) If fitted, ensure that the lock-off valve is closed and that all extinguishing actuating circuits are isolated.		Y	Y	Y	Y
2	For gas suppression system electrical components, perform routine service in accordance with relevant sections of F16: Detection and Alarm Systems as applicable.		Y	Y	Y	Y
3	For Multi-Point Aspirated Smoke Detector (MASD) components, perform routine service in accordance with relevant sections of F31: Multi-Point Aspirated Smoke Detector (MASD) as applicable.		Y	Y	Y	Y
4	For Interface with other systems components, perform routine service in accordance with relevant sections of F39: Interface Testing of Fire Protection Systems as applicable.		Y	Y	Y	Y
5	Check that all warning signs are readily visible and legible.		Y	Y	Y	Y
6	Check the storage container enclosure is accessible, adequately illuminated, ventilated and secured against unauthorized entry.		Y	Y	Y	Y
7	Storage containers: a) Check they are secure, damage-free and air can flow around the base. b) Check the pressure indicator of each container to ensure that the loss of pressure is less than 10% of nominal charge pressure. Where no pressure indicator exists, check the system discharge indicator is not operated.		Y	Y	Y	Y
8	Check that all release anti-damper seal / pull pins are in place and secure.		Y	Y	Y	Y
9	Check all release mechanisms are damage-free, accessible and unimpeded.		Y	Y	Y	Y
10	Ensure that the lock-off valve is labelled and accessible.		Y	Y	Y	Y
11	Verify the protected area risk has not changed e.g. area use, fuel type, volume, etc.		Y	Y	Y	Y
12	Verify that all mechanical and pneumatic detection devices are free of any damage that can affect their function.			Y	Y	Y
13	Test the automatic mechanical detection systems to confirm: a) The alarm activates the warning system. b) Capability to initiate the suppression system discharge.			Y	Y	Y
14	Check the pneumatic piping is free of corrosion or mechanical damage and adequately secured.			Y	Y	Y
15	Test the pneumatic controls to ensure they are fully operational.			Y	Y	Y
16	Test the manual release systems to ensure they are fully operational.			Y	Y	Y
17	Check that the manifold, all pipework and flexible connectors are free of corrosion or mechanical damage and adequately secured.			Y	Y	Y

Disclaimer - This TDS is intended to provide guidance only to support Preventative Maintenance servicing activities. All TDS users are encouraged to read and understand the full [Conditions of Use](#) provided on the final page of this document and on the DPTI website.

For more information please contact the applicable Facilities Management Service Provider.



Government of South Australia
Department of Planning,
Transport and Infrastructure

Download Date: 22/12/2020

Gaseous Suppression System

Last Issue Date: 07/10/2020		Type Of Service				
Activity		A	B	C	D	E
18	Verify that all nozzles are clear, unobstructed, properly oriented and secured.			Y	Y	Y
19	Verify the lock-off valves are fully operational. Confirm the system inoperative visual warning device operates.			Y	Y	Y
20	Confirm that the discharge from all pressure-relief devices and vent valves does not create a hazard.			Y	Y	Y
21	Check that all directional valves and check valves are correctly orientated.			Y	Y	Y
22	Confirm that each storage container is correctly charged. The mass loss is not greater than: - 5% of the nominal charge mass for halocarbons agent. - 10% of the nominal charge mass in the case of carbon dioxide, water and nitrogen agent.			Y	Y	Y
23	If the 10-year Pressure Test inspection is due within a year, report it to the FMSP. Record the last test date.				Y	Y
24	For mechanical detection systems (mechanical components), actuator and mechanical release systems, verify they are fully operational and lubricate as necessary.				Y	Y
25	Replace any detection device (mechanical) if it will exceed its listed service life prior to the next service.				Y	Y
26	Check that all detection device spacing's and locations are compliant.				Y	Y
27	Replace any pyrotechnic actuator if it will exceed its listed service life prior to the next service.				Y	Y
28	Clean the nozzles if contaminated.				Y	Y
29	Clean the dampers if contaminated.				Y	Y
30	Check for any condition that could cause an unwanted fire suppression gas discharge.				Y	Y
31	Verify the site conditions remain the same. Check the fuel class and type, enclosure volumes, design concentration or application density and dimensions of projected objects.				Y	Y
32	Conduct and record an Enclosure Integrity Test to ISO14520.1 to ensure the requirements are met. Note: A visual inspection is acceptable if the test cannot be undertaken.				Y	Y
33	If fitted, test and record the pressure relief vent.				Y	Y
34	Verify that any leakage of extinguishing agent from the protected areas does not cause a hazard.				Y	Y
35	Test the operation of automatically operated ventilation dampers.				Y	Y
36	Test the operation of the post-discharge ventilation system.				Y	Y
37	Simulate a 'System Operation' and check the operation of the directional valves.				Y	Y

Disclaimer - This TDS is intended to provide guidance only to support Preventative Maintenance servicing activities. All TDS users are encouraged to read and understand the full [Conditions of Use](#) provided on the final page of this document and on the DPTI website.

For more information please contact the applicable Facilities Management Service Provider.



Government of South Australia
Department of Planning,
Transport and Infrastructure

Download Date: 22/12/2020

Gaseous Suppression System

Last Issue Date: 07/10/2020		Type Of Service				
		A	B	C	D	E
Activity						
38	Conduct a Flow Test (nitrogen or suitable alternative) to ensure all nozzles are unobstructed.					Y
39	Conduct a Hydrostatic Pressure Test in accordance with AS2030.1 to cylinders exceeding 10 years in service.					Y
40	For gas storage containers (engineered ones) - Internally inspect vessels to AS3788.					Y
41	Record the results in the logbook and submit a customer service report to the FMSP.		Y	Y	Y	Y

Special Comments and Technical Data

B SERVICE MONTHLY
 C SERVICE SIX MONTHLY
 D SERVICE ANNUAL
 E SERVICE 10 YEARLY

WHERE ANY DISCREPANCIES EXIST BETWEEN THE MANUFACTURER'S RECOMMENDATIONS (SERVICE ACTIVITIES AND / OR FREQUENCIES) AND THIS TDS AND / OR ANY REFERRED TDSs, THE MOST STRINGENT REQUIREMENTS SHOULD TAKE PRECEDENCE.

SERVICE ACTIVITIES AND FREQUENCIES MAY ALSO NEED TO BE VARIED DEPENDING ON THE SITE CONDITIONS.

A SPECIALIST FIRE SUB-CONTRACTOR IS REQUIRED FOR THIS SERVICE WHO IS COMPETENT TO UNDERTAKE THE SERVICE.

APPLICABLE STANDARDS: AS1851, AS1670.1, AS4214, AS2030.1, AS3788.

THIS REGULATORY SERVICE IS TO REFLECT INSPECTION, TESTING AND MAINTENANCE REQUIREMENTS OF ESSENTIAL SAFETY ITEMS OF MINISTERIAL BUILDING STANDARD MBS 002 AND THE PRESCRIBED STANDARD AS1851.

FOR Gas Suppression System Electrical Components REFER TO TDS F16: Detection and Alarm Systems.

FOR Multi-Point Aspirated Smoke Detector (MASD) Components REFER TO TDS F31: Multi-Point Aspirated Smoke Detector (MASD).

FOR Interface with other Systems Components REFER TO TDS F39: Interface Testing of Fire Protection Systems.

FOR Special Hazard Systems REFER TO TDS F49: Special Hazard Systems.

Disclaimer -This TDS is intended to provide guidance only to support Preventative Maintenance servicing activities. All TDS users are encouraged to read and understand the full [Conditions of Use](#) provided on the final page of this document and on the DPTI website.

For more information please contact the applicable Facilities Management Service Provider.



Government of South Australia
 Department of Planning,
 Transport and Infrastructure

Download Date: 22/12/2020

Conditions of Use

A TDS should be used as a generic guide for Facilities Management Service Providers (FMSP) to deliver Facilities Maintenance Services, specifically Preventative Maintenance in accordance with the DPTI [Agency Work Procedure Manual](#).

Users of a TDS should familiarise themselves with the following **Conditions of Use**:

1. You use the information and data contained in any TDS published by DPTI at your sole risk. DPTI-AGFMA does not have the expertise to provide complete or accurate technical data schedules and provides these technical data sheets merely as a starting point and/or guide.
2. If you rely on the information in a TDS you are responsible for ensuring, by independent verification, its accuracy, currency and completeness. DPTI cannot guarantee that the information contained in a TDS meets the standards or requirements of legislative requirements.
3. A TDS is not an exhaustive list of tasks or obligations that may be required and is generally generic in nature. DPTI does not oblige the user of a TDS to rely on it to the exclusion of other sources of information. For example, manufacturer's requirements may need to be followed for additional and / or alternative tasks and for additional and / or alternative servicing frequencies. You should always check the primary source of information such as the Australian Standards, manufacturer's specifications, legislation and other standards before undertaking any work to which a schedule may apply.
4. You must apply appropriate risk management principles and carry out all tasks in accordance with obligations under the [Work Health and Safety Act 2012](#).
5. You must not use a TDS unless you meet the specific competency requirements for preventative maintenance servicing works and are capable of applying the TDS to your trade or area of expertise. A TDS is only to be used by people who are specifically instructed by DPTI to use them and only for work undertaken in South Australia.
6. DPTI, its agents, instrumentalities, officers and employees make no representations, express or implied, as to the accuracy of the information, the data contained in a TDS or the suitability of a TDS for a particular purpose.
7. DPTI does not provide legal advice. DPTI accepts no liability, howsoever arising, for any loss resulting from the use of a TDS and any information or data or reliance placed on them.
8. DPTI may change information and data in a TDS without notice.
9. DPTI may revise this disclaimer at any time by updating these Conditions of Use.