



CITY OF SAN ANTONIO

DEVELOPMENT SERVICES AND FIRE DEPARTMENT
PO BOX 839966 SAN ANTONIO TEXAS 78283-3966



TO: Development Services and Fire Department Customers

SUBJECT: **INFORMATION BULLETIN 190**
Gaseous Suppression System Permit Information and Checklist

DATE: April 3, 2011/*Revised February 7, 2022*

CREATED BY: Development Services and Fire Departments

Purpose:

As a customer service initiative, the Development Services Department (DSD) and the San Antonio Fire Department (SAFD) created this **revised** bulletin to update Information Bulletin (IB) 190 on the Gaseous Suppression System Permit information and checklist. The application is removed since the application is on-line in BuildSA.

The following information and attached Checklist is furnished for the purpose of expediting the City of San Antonio review of plans and specifications submitted for gaseous suppression system permits issued by the San Antonio Fire Department. The Checklist does not constitute a complete list of all items that may be required for approval during the technical plan review process prior to permit issuance. The owner or owner's representative is responsible for compliance with the requirements of applicable City of San Antonio codes and standards.

Scope:

Permit and Licensing Requirements

Gaseous suppression system permits will be issued to the Extinguishing System Contractor performing the work. Such contractor shall be licensed per the licensing regulations of the Texas Department of Insurance - State Fire Marshal's Office.

Electronic Submittal Application and Upload of PDF Documents

The Gaseous Suppression System is a subtype of Fire System's Permit application applied for and filed out on-line through the [BuildSA Customer Portal](#), under the Fire Tab. The application is applied for by the applicant (owner of the BuildSA portal account) and requires adding the owner's contact and the licensed contractor (if not the applicant).

Electronics pdf drawings uploaded after the application shall be of such size necessary to provide legible text, dimensions and details. All electronic plans, specifications and system calculations shall bear the electronic seal of an engineer registered to practice in the State of Texas or the name and license number as prescribed by Title 28 of the Texas Administrative Code, Chapter 34, Subchapter E (Fire Extinguisher Rules) Section 34.518 (Fire Extinguisher Fixed System Plans for Other Than Pre-engineered Systems) of a Type PL licensee (EPL) licensed by the Texas Department of Insurance - State Fire Marshal's Office. Additionally, plans specifications and system calculations for associated fire alarm equipment installed for releasing and notification shall bear the electronic seal of an engineer registered to practice in the State of Texas or the name and license number as prescribed by Title 28 of the Texas Administrative Code, Chapter 34, Subchapter F (Fire Alarm Rules) Section 34.619 (Fire Alarm and Detection System Plans and Record Drawings) of a Fire Alarm Planning Superintendent (APS) licensed by the Texas Department of Insurance - State Fire Marshal's

Office. Plans submitted for permit review by the City shall be completed 'For Construction' documents. Plans including the phrase 'Preliminary - Not For Construction' will not be accepted for permit review. This requirement is necessary to expedite your project through the City's plans review procedures and save unnecessary delays caused by review of construction plans that are incomplete and not for construction.

In the case of multiple suppression systems, (separate protected areas each equipped with a separate piping system and control equipment) a single permit application may be used if within the same building.

Any questions concerning the on-line application and electronic documents may be through:

Development Services/San Antonio Fire Department – Fire Prevention Division
Attn: Fire Alarm Fire Protection Specialist
1901 S. Alamo Street
San Antonio, Texas 78204-1605
Tel: (210) 207-8410, Fax: (210) – 207-7949

RESUBMITTAL OF PLANS

Resubmittal of plans in response to issues created in the Plan Room by fire system technical review staff must be made through the Plan Room within the BuildSA Customer Portal. The customers must:

1. Answer each issue from the plan reviewer with a customer response under the Issues tab,
2. Then close out the review package in the Uploads tab by:
 - a. uploading a requested pdf document if required by uploading to the open review package, or
 - b. simply close out the review package if a new pdf document is not required by the reviewer.

Please be aware that the City gets no notification of a re-submittal until the review package is closed; i.e. review packages must not remain in the “Resume” status. Simply answering the issues in the Issues tab, does not create a review or notice that an issue(s) has been answered, until the review package is in the “View” status.

You are encouraged to contact the plans examiners to clarify the requirements of their review. However, no approvals will be given without answering of issues shown in the Plan Room and without resubmitting electronic plans or required information through BuildSA portal.

Approved Plans

Once technical reviews are completed, the approved plans are available through the Plan Room in the BuildSA Customer Portal. It is up to the extinguishing system installing contractor to print the plans for inspections.

Applicable Codes and Standards:

The following model codes and National Fire Protection Association (NFPA) standards are currently adopted as amended by the City of San Antonio Code:

International Building Code, 2018 Edition, as adopted by Chapter 6, Buildings, Code of Ordinances
International Fire Code, 2018 Edition, as adopted by Chapter 11, Fire Prevention, Code of Ordinances
NFPA 72 - The National Fire Alarm and Signaling Code, 2016 Edition
NFPA 70 - The National Electrical Code, 2017 Edition
NFPA 2001 - Standard on Clean Agent Fire Extinguishing Systems, 2015 Edition

Estimated Plan Review Turnaround Time:

New system: 90% of plans reviewed in twenty-one (21) calendar days or less.

Resubmittal: 90% of plans reviewed in seven (7) calendar days or less.

Record Drawing and Post Permit Revision Review: 90% of plans reviewed in seven (7) calendar days or less. Note that a fee of \$100.00 per hour with a one (1) hour minimum applies to all record drawing and post permit revision reviews.

Please note that the estimated plan review turnaround times stated above reflect the time required to complete a first review or a resubmittal review and does not indicate the time required for approval of the plans. Approval of the plans depends upon the accuracy and completeness of the submitted plans by the owner's design professional.

The following submittal requirements are based upon the requirements of the International Fire Code, 2018 Edition, Chapter 9, Section 901.2, National Fire Protection Association Standard 72 (National Fire Alarm and Signaling Code), 2016 Edition, Chapter 4, Section 4.4.4.2, and the National Fire Protection Association Standard 2001 (Standard on Clean Agent Fire Extinguishing Systems), 2015 Edition, Chapter 5, Section 5.1.2, Subsection 5.1.2.2.

Special Considerations for Pre-Engineered Systems:

A Pre-Engineered System is defined by NFPA 2001, 2015 Edition, Chapter 3, Section 3.3.24 as; “A system having pre determined flow rates, nozzle pressures, and quantities of agent. These systems have the specific pipe size, maximum and minimum pipe lengths, flexible hose specifications, number of fittings, and number and types of nozzles prescribed by a testing laboratory. The hazards protected by these systems are specifically limited as to type and size by a testing laboratory based upon actual fire tests. Limitations on hazards that can be protected by these systems are contained in the manufacturer's installation manual which is referenced as part of the listing.”

Considering this definition and in accordance with NFPA 2001, 2015 Edition, Chapter 5, Section 5.1.2.3.1, certain items prescribed as part of the submittal package will not be required for review, and are as follows:

- Specified internal volume of the agent container
- Nozzle flow rates
- Equivalent lengths of pipe and fitting and hose
- Flow calculations when the system is used within its listed limitations

Note that Section 5.1.2.3.1 states; “The information required by the listed system design manual, however shall be made available to the authority having jurisdiction for verification that the system is within its listed limitations.” This requirement shall be met by submittal of one (1) copy of the listed system design manual with the submittal package for any proposed pre-engineered system.

Special Considerations for Inspections (Witnessed Tests):

Note that these are the minimum requirements for submittal to the City of San Antonio Fire Department Fire Prevention Division. Failure to provide this information will result in plan review denial. Refer to the checklist for any additional details.

Summary:

This information bulletin is for informational purposes only.

Prepared by: Christopher Monestier, Assistant Fire Chief/Deputy Fire Marshal

Reviewed by: Christopher Monestier, Assistant Fire Chief/Deputy Fire Marshal

Authorized by: Carl Wedige, Deputy Fire Chief/ Fire Marshal
Roderick Sanchez, AICP, CBO, Development Services Director



CITY OF SAN ANTONIO

DEVELOPMENT SERVICES AND FIRE DEPARTMENT
 PO BOX 839966 SAN ANTONIO TEXAS 78283-3966



GASEOUS SUPPRESSION PERMIT CHECKLIST

Checklist for Plans Submittal:

The following information lists the basic plans submittal requirements for applicable COSA departments to complete their plans review. Mark "REQ" when the item is required and included in your submittal; mark "N/A" when the item is not applicable to your project. All other items are required. This checklist is to be completed by the applicant (see Section B) in its entirety.

1. General:

REQ: <input type="checkbox"/>	NA: <input type="checkbox"/>	a. Code Modification Requests (CMR) and/or Approved Alternative Method designs - If design is based on an approved CMR
REQ: <input type="checkbox"/>	NA: <input type="checkbox"/>	b. Preliminary Code Review Design Meeting correspondence. Include a copy of the approved correspondence regarding any Preliminary Code Review Design Meetings applicable to this project.
REQ: <input type="checkbox"/>	NA: <input type="checkbox"/>	c. All plans (i.e., each sheet) are to be signed by the Type PL licensee for the installing contractor with the Type PL licensing information and company name. Note that Type PL licensee's signature is to be updated for each revision submitted to the City on each revised sheet. Note that this requirement applies to non-pre-engineered systems only.
REQ: <input type="checkbox"/>		d. All plans (i.e., each sheet) are to be signed by the A.P.S. for the installing contractor with the A.P.S.'s licensing information and company name. Note that A.P.S.'s signature is to be updated for each revision submitted to the City on each revised sheet. Note that this requirement applies to the fire alarm equipment plans and calculations only.

2. Engineered Systems: (Submittal Books)

REQ: <input type="checkbox"/>	a. Table of Contents
REQ: <input type="checkbox"/>	b. Bill of Materials
REQ: <input type="checkbox"/>	c. Equipment data sheets for all fire alarm equipment to include releasing panel, smoke and heat detectors, manual fire alarm boxes (pull stations), duct mounted smoke detectors, interface devices to include control, monitor, and signaling modules; notification appliances, single or multi-voltage relays, and electrical cabling.
REQ: <input type="checkbox"/>	d. Equipment data sheets for all clean agent system components to include agent containers, distribution piping, pipe fittings, nozzles, solenoids, and extinguishing agent.
REQ: <input type="checkbox"/>	e. Nozzle data to include size, orifice port configuration, flow rate, and equivalent orifice area if not included in the equipment data sheet for the proposed nozzle.
REQ: <input type="checkbox"/>	f. Standby battery calculations for all control equipment.

REQ: <input type="checkbox"/>	g. Standby battery calculations for air sampling type smoke detector power supplies if installed.
REQ: <input type="checkbox"/>	h. Installation data packs for air sampling type smoke detectors if installed.
REQ: <input type="checkbox"/>	i. Voltage drop calculations for all notification appliance circuits.
REQ: <input type="checkbox"/>	j. Enclosure volume calculations.
REQ: <input type="checkbox"/>	k. Agent weight calculations to include design extinguishing or inerting concentration.
REQ: <input type="checkbox"/>	l. Maximum positive and maximum negative pressure relative to ambient pressure expected to be developed upon agent discharge estimate.
3. Pre-Engineered and Engineered Systems: (Working Plans)	
REQ: <input type="checkbox"/>	a. Name of owner and occupant.
REQ: <input type="checkbox"/>	b. Location including street address and suite number if applicable.
REQ: <input type="checkbox"/>	c. Point of compass.
REQ: <input type="checkbox"/>	d. Location and construction of protected enclosure walls and partitions.
REQ: <input type="checkbox"/>	e. Location of fire walls.
REQ: <input type="checkbox"/>	f. Dimensioned enclosure cross section full height or schematic diagram, which includes the location and construction of floor / ceiling assemblies above and below, raised access floor, and suspended ceiling.
REQ: <input type="checkbox"/>	g. Description of occupancies and hazards being protected to include designation of whether or not the enclosure is normally occupied.
REQ: <input type="checkbox"/>	h. Description of exposures surrounding the enclosure.
REQ: <input type="checkbox"/>	i. Dimensioned plan view of protected area showing enclosure partitions (full or partial height): agent distribution system including storage containers, piping, nozzles, pipe support and hangar locations, and location of controlled devices (dampers and shutters), and location of instructional signage stamped and signed by the Type PL licensee.
REQ: <input type="checkbox"/>	j. Isometric view of the agent distribution system showing length and diameter of pipe segments, node reference numbers, fittings including reducers and strainers, tee orientation, and nozzles including size stamped and signed by the Type PL licensee.
REQ: <input type="checkbox"/>	k. Equipment legend for suppression system equipment including agent containers and nozzles placed on each sheet of the plan view of the protected area and distribution system.
REQ: <input type="checkbox"/>	l. Rigid pipe support and securement, agent container securement, and pipe hangar details.
REQ: <input type="checkbox"/>	m. Instructional signage details.
REQ: <input type="checkbox"/>	n. Step by step sequence of operation either as a written description or an input / output matrix.

REQ: <input type="checkbox"/>	o. Plan view of protected area showing placement of all control equipment, fire alarm initiating devices, notification appliances and system interface devices to include effective intensity settings for notification appliances, schematic wiring interconnection between all devices, and end of line device locations, signed by the Fire Alarm Planning Superintendent.
REQ: <input type="checkbox"/>	p. Equipment legend for all fire alarm system equipment placed on each sheet of the plan view of the fire alarm equipment placement.
REQ: <input type="checkbox"/>	q. Cabling legend for all fire alarm system equipment placed on each sheet of the plan view of the fire alarm equipment placement.
REQ: <input type="checkbox"/>	r. Detector, manual actuation, and notification appliance mounting method details.
REQ: <input type="checkbox"/>	s. Point to point wiring diagram showing all circuit connections to the system control panel for all initiating, notification, and system interface devices; and the interconnection to the building fire alarm system where a building system is installed.
4. Pre-Engineered Systems (Submittal Books)	
REQ: <input type="checkbox"/>	a. All items required in the submittal books for engineered systems (See Section F, Subsection 2) with the exception of Item e (Nozzle Data)
REQ: <input type="checkbox"/>	b. Listed pre-engineered system design and installation manual.

Expiration of Plan Review:

An application for a permit for any proposed work or operations shall be deemed to have been abandoned six (6) months after the date of filing, unless such application has been diligently prosecuted or a permit shall have been issued; except that the fire code official is authorized to grant one or more extensions of time for additional periods not exceeding ninety (90) days each if there is reasonable cause. (2018 IFC Section 105.2.3)