Gas Suppression System Technical Specification — Checklist

This is not a specification template. It is for checking whether a specification you write or receive covers the items below. Explanations and sources: gazliyanginsondurme.com/en/knowledge/gas-suppression-technical-specification/

SCOPE AND STANDARD

- [ ] Design standard and edition (EN 15004 / ISO 14520 or NFPA 2001; the relevant standard for CO2)
- [ ] List of protected volumes; raised floor and ceiling voids separately
- [ ] Occupancy profile of each volume (occupied / occasionally entered / normally unoccupied)
- [ ] System architecture: Stand Alone or Multi-Zone

AGENT AND DESIGN

- [ ] Agent family or acceptable agents, with the selection rationale
- [ ] Fire class and safety factor for the design concentration
- [ ] NOAEL / NFPA 2001 exposure limits not exceeded in occupied spaces
- [ ] Discharge time requirement and hold-time target
- [ ] Hydraulic calculation with approved software, outputs handed over
- [ ] Cylinder location, cylinder room and distance to the protected room

COMPONENTS AND APPROVALS

- [ ] Cylinders, valves, actuators, selector valves and nozzles under the same system approval
- [ ] Pipe, fittings and pressure class; pipework pressure and leak test
- [ ] Control panel approved for extinguishing control
- [ ] For HFC systems, fluorinated gas regulatory duties

DETECTION, ALARM AND CONTROL

- [ ] Detection logic that reduces false discharge (cross-zoning / double-knock)
- [ ] Pre-discharge audible and visual alarm, time delay, door warning sign
- [ ] Manual release and abort buttons
- [ ] Ventilation, air conditioning and damper shutdown on discharge; link to the building fire alarm

ROOM INTEGRITY AND PRESSURE RELIEF

- [ ] Door fan test before commissioning, report handed over
- [ ] Remedial sealing and retest in scope if the room fails
- [ ] Discharge pressure assessment; pressure relief vent where needed

COMMISSIONING AND HANDOVER

- [ ] Functional tests: detection, alarm, delay, manual release, abort, damper and ventilation shutdown
- [ ] As-built drawings, hydraulic report, door fan test report, fill records, approvals, O&M instructions, training record

MAINTENANCE

- [ ] Agent quantity and pressure: at least every six months; system inspection and test: annually; protected room inspection: at least every 12 months (summaries citing NFPA 2001-2012)
- [ ] Periodic cylinder inspection, hydrostatic test and refill terms

> The current edition of the standard used on the project governs. The final design is calculated with the system manufacturer's approved method.