

4. Design, Installation, Inspection, Acceptance and Maintenance of Smoke Control Systems

4.1. Design/Specification and Submittals

- 4.1.1.** Design, Specifications and Submittals to Civil Defence for approval shall be the main consultant's responsibility. The consultant shall have competent and knowledgeable personnel to understand the Civil Defence requirements and codes and standards.
- 4.1.2.** It is the consultant's responsibility to appropriately select the smoke control, smoke containment or smoke management systems, suitable for the building, life safety and property protection.
- 4.1.3.** Design submittals shall be complete with design criteria, design objective, calculations, engineering analysis, equipment specifications and riser diagrams with layouts and schematics in compliance with this chapter.

4.2. Installation

- 4.2.1.** The installation of smoke control systems shall be carried out by the Civil Defence approved smoke control contractors under the supervision of Consultant.
- 4.2.2.** The installation contractor shall not commence work on site without receiving Civil Defence stamped and approved drawings from the Consultant.
- 4.2.3.** It is contractors responsibility to adhere to consultant's Civil Defence approved drawings and the manufacturer's installation guidelines and specifications.
- 4.2.4.** The consultant shall ensure that the smoke control system installation complies with the Civil Defence approved drawings and specifications.

4.3. Inspection and Acceptance

- 4.3.1.** Inspection and acceptance shall be the main consultant's responsibility.
- 4.3.2.** Ducting shall be inspected and certified by the ducting manufacturer or supplier. The consultant shall sign off the ducting installation based on the manufacturer or supplier's onsite ducting certification.
- 4.3.3.** The main consultant shall inspect the contractor's work during installations and ensure that intended pressure differences, door opening forces, air velocities, make-up air velocities, extract rate, duct routing, clear head rooms etc. are in compliance with this chapter and the Civil Defence approved drawings.

4.4. Inspection and Maintenance

- 4.4.1.** The building owner, his appointed representative and the facility management shall be responsible to ensure that the facility smoke management system performs as intended, in compliance with this chapter. The acceptance of the system shall be jointly signed off by the consultant, the contractor and the owner representative.
- 4.4.2.** It is the owner's responsibility to ensure that the smoke control systems are inspected regularly and maintained in accordance with **Section 4** of this chapter.