Table 10.6.: Corridor and Open Circulation Spaces Smoke Purging System

ITEMS	REQUIREMENTS
5. EXTRACT OUTLETS	i. When a smoke extraction outlet is served by two air supply inlets, the distances between inlets and outlets must be equivalent. ii. Extract outlets shall not be located within 6 m of any exit stair or exits. See **Figure 10.23.** iii. The final smoke exhaust outlets shall be outside the building to the open air, and away from occupied spaces. iv. In highrise and superhighrise buildings, the smoke exhaust shall not be at intermediate levels of the building. The smoke exhaust shall only be from roof, open to sky. Make up air is permitted to be drawn from intermediate levels. See **Figure 10.25.b.**
6. SYSTEM ACTIVATION	i. The smoke purge systems shall be automatically activated by the Sprinkler Flow switch and/or smoke detection systems serving the corridor zone or open circulation area zone. ii. The automatic activation of the purge system by means of a cross zoned system (activation of two detection devices) shall be preferred and permitted. iii. Means for the manual operation of the smoke purge system with the Smoke Control Panel (SCP) shall be provided at an approved location as per **Table 10.1.11,** preferably at the Emergency Command Center where applicable or next to the main fire alarm panel. iv. Each smoke exhaust fan must be able to be shut down from the manual control location. v. The control devices must ensure fans startup, within a maximum delay of 30 seconds in order to allow the operation of all activated security devices (dampers and doors) ensuring smoke extraction and partitioning of the smoke extraction zone. vi. The open or closed state of fans disconnecting switch must be monitored by SCP and shall be annunciated to the security station or a frequently supervised station.
7. USAGE OF HVAC SYSTEM	i. The building HVAC system shall be permitted for corridor or open circulation areas smoke extraction provided that the system adheres to the provisions of **Section 2.8.** and such system does not interfere with the natural smoke movement of the area. ii. HVAC system used for any smoke purging objective shall be designed and installed with dampers in ducting network such that the activation of the system shall not circulate the smoke back into the air supply network and into the building. iii. The presence of filters or sound attenuators shall be allowed on the supply ductwork. iv. The building HVAC system shall also be permitted to achieve and enhance the corridor smoke purging system by establishing positive pressure differences at the adjacent zones. v. Where corridors and open circulation areas are provided with multiple arrangement of systems as allowed by **Table 10.6.7.ii.,** such zones shall be smoke compartments, fully separated by smoke barriers and smoke doors. vi. Any HVAC system put to service for establishing pressure differences or as smoke purge system shall be designed through an engineering analysis.