Table 10.5.: Atrium and Large Volume Smoke Control System

ITEMS	REQUIREMENTS
6. COMMUNICATING SPACES AND CONVENIENCE OPENINGS	i. Convenience Openings and communicating spaces shall not require an atrium smoke management system. However, any of the following methods shall be implemented to prevent smoke spread to the communicating spaces or convenience openings. a. Maintaining the smoke layer interface at a level higher than that of the highest opening of the communicating space. b. Providing a smoke barrier to limit the smoke spread into the communicating space. c. Providing an opposed airflow through the opening to prohibit smoke spread into the communicating space. d. Providing smoke screens as per **Table 10.5.5.**
7. CLEAR LAYER	i. The design smoke layer base shall be above the heads of people escaping beneath it. The minimum height shall be 1830mm.
8. SYSTEM ACTIVATION	i. Atrium Smoke Control Systems shall be independently activated by each of the following: a. Required automatic sprinkler system and smoke detectors (which ever activated first) b. Manual controls that are readily accessible to the fire department. ii. For large spaces where smoke stratification can occur, one of the following detection means shall be used: a. Beam-type smoke detector(s) aimed at an upward angle to intersect the smoke layer regardless of the level of stratification. b. Horizontally mounted beam-type smoke detector(s) located at the ceiling with additional beam-type smoke detector(s) located at other levels in the volume to cover any identified unconditioned (dead air) spaces. c. Horizontally mounted beam-type smoke detector(s) located below the lowest expected level of stratification. d. Aspiration (air sampling) smoke detection system. iii. A means of manually starting and stopping the smoke management system shall be provided with the Smoke Control Panel (SCP) at the emergency command center.
9. STAND-BY FAN	i. Back-up (Stand-by) fans shall not be required for atrium and large volume smoke management systems.
10. STAND-BY POWER	i. Atrium smoke management system, Control panel, automatic Smoke curtains and fans shall be provided with the emergency power.