

Table 2 Standard safety criteria for safe egress from the room of origin

Items to be Checked	Safety criteria
1. Smoke	Either of the followings: (1) Smoke layer bottom is kept at height s (m) which satisfy $s > 1.6 + 0.1(H - h)$ where H : ceiling height (m) h : height of the floor of evacuation route (m) (2) The smoke to which evacuees are exposed satisfy $\int_0^{t_e} (\Delta T)^2 dt < 4.0 \times 10^3$ where ΔT : temperature rise (K) t_e : time during which evacuees are exposed to smoke (s)
2. Heat	Incident radiation heat flux r (kW/m^2) to evacuees satisfy $\int_0^{t_e} (r - 2)^2 dt < 10 \quad (\text{if } (r - 2) < 0, (r - 2)^2 = 0)$ where t_e : evacuation time (s)
3. Flame spread	The interior lining materials do not induce the combustion which violates the safety criteria of 1. Safety from smoke and 2. Safety from heat during the time of evacuation.
4. Collapse of building	N/A
5. Falling objects	Functional standard
6. Excessive crowding	Unless in space specially protected, crowding at any opening on evacuation routes satisfy $n < 120$ where n : number of evacuees in crowding per unit width (person/m)