Table 17.1: Guidelines for Risk Assessment

OCCUPANCY	REQUIRMENTS
3. **FIRE SCENARIOS**	**1. GENERAL** i. The FRA should address the risk contribution from all potentially significant fire scenarios. When approximations are used (e.g., the risk contribution from a single fire scenario is used as a basis for estimating the risk from a wider range of fire scenarios), the approximations should be justified in the context of the decision problem. ii. The objective in selecting the fire scenarios to be analyzed is to find a set of scenarios that are sufficiently diverse and representative such that analyzing the risk for these scenarios captures the overall fire risk for the facility. **2. FIRE IGNITION** **i.** Often based on the most probable event in a particular setting, for example, cigarette ignition of a couch in a living room. Prevention education would reduce the probability of occurrence of this event and the consequential risks. **3. FIRE GROWTH** i. Based on all probable developments of a fire, from smoldering to flashover fires. Fire protection systems such as sprinklers, compartmentation and door closers may help to contain these fires and to reduce their consequential risks. The reduction in risk depends on the reliability and effectiveness of the fire control systems. **4. SMOKE GROWTH** i. Based on smoke spread to critical egress routes and other parts in a building. Fire protection systems such as smoke control and stairwell pressurization may help to contain the smoke and to reduce its consequential risks. The reduction in risk depends on the reliability and effectiveness of the smoke control systems. **5. EXPOSURE OF OCCUPANTS** i. Based on smoke and fire blocking egress routes. Fire protection systems such as fire alarms, voice communication, clear egress routes, and refuge areas may help to provide early warning to occupants and to direct them either to evacuate the building or to seek refuge in certain areas. The reduction in risk depends on the reliability and effectiveness of the warning and evacuation systems. **6. FAILURE OF CIVIL DEFENCE EARLY RESPONSE** i. Based on no response or late response. Proper notification procedure and adequate fire department resources would help to rescue the trapped occupants or to control the fire. The reduction in risk depends on the reliability of the notification procedure and the adequacy of fire department resources.