

Architectural Life Safety Lessons Learned

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The following statements have been compiled to represent a few typical code issues encountered on various MD Anderson building projects. The list is not complete, but is intended to communicate awareness for the Architect /Engineer to ensure that all applicable aspects of the code are incorporated into a project.

1. Protection of hazardous areas in a Business Occupancy - 1 Hr rated partition or fire sprinklers and smoke partition. Smoke partition may stop at ceiling if a ducted return air system is installed.
2. If the occupancy calculation for a Conference or Multipurpose Room exceeds 50 people, it must be classified as an Assembly. An Assembly cannot be classified as an "incidental" occupancy.
3. For remodeling projects, consult a Life Safety Plan for location of fire and smoke walls as well as other Life Safety data for a particular building.
4. Convenience openings (unrated stair connecting 2 stories) require separation at corridors and/or separation at one floor or the other. The code is unclear what the separation at corridors constitutes. The intent is a smoke separation according to one expert who helped write the code (NFPA 101).
5. Elevator lobbies must have access to an exit.
6. Mixed occupancies must use the most stringent of requirements, including egress, dead end limits, etc. Separated occupancies (fire wall) cannot use the same egress corridors except if going through a horizontal exit.
7. Be sure that fire and smoke walls are shown on the mechanical plan for coordination of fire and smoke dampers.
8. Number and capacity of chemical "Control Areas" per IBC as opposed to NFPA requirements for Labs (NFPA 45) and additional chemical storage rooms (NFPA 30). Also there are requirements in relation to amounts of chemicals relating to floor level above grade.
9. Per NFPA, pressurized stairs must exit directly to the outside or through an exit passageway connecting to the outside. IBC does not have the exit passageway requirement. We go by NFPA.
10. Exiting from an occupied space through a "shelled space" may require a hard exit access corridor (extending to the deck above).
11. Fire Rated doors to Labs relating to the additional side "equipment door" and the code requirements for hardware (dead bolts/flush bolts, etc.) – Refer to NFPA 80.
12. Be careful not to create dead end corridors at Elevator Lobbies (20 feet) in Assembly Occupancy or mixed occupancy involving Assembly.