POST-DISASTER BUILDINGS HOUSING EMERGENCY RESPONSE VEHICLES AND PERSONNEL

DISCUSSION
Buildings used for emergency response vehicles and personnel, such as fire halls, paramedical and ambulance services, etc., are classified as post-disaster buildings, unless they are specifically exempted from this designation by the authority having jurisdiction (AHJ). If the AHJ does not exempt these buildings from being designated as post-disaster buildings, then they must be constructed according to the requirements of Part 3, regardless of their size. However, if the AHJ does exempt these types of buildings from being designated as post-disaster buildings (as permitted by the definition), then they would be permitted to be designed according to Part 9, provided they fall within the occupancy and size criteria outlined in Article 1.3.3.3. of Division A.

These buildings often include facilities such as kitchens, resting rooms, games rooms and so on for the comfort of the crew during long shifts. They may also have the capability to be used for performing repairs on the vehicles other than routine maintenance. Depending upon the design, designation and occupancy classification, the following are some of the requirements of the Alberta Building Code that may apply.

For Part 3 Buildings:

a) Sentence 3.1.3.2.(2) specifies that not more than one suite of residential occupancy is permitted to be located in a building classified as Group F, Division 2 (medium-hazard industrial).

b) Sentence 3.2.1.7.(4) requires all floor areas or parts of floor areas used for residential occupancy to be sprinklered.

c) Sentence 3.3.5.5.(1) requires repair garages to be separated from the remainder of the building by a fire separation having a fire-resistance rating of at least 2 h. These requirements also acknowledge that some spaces are ancillary to the function of a garage and are entirely dependent upon it for their own existence. This makes it unreasonable if not impractical to provide fire separations between the garage and ancillary spaces.

d) Sentence 3.3.5.6.(1) requires storage garages to be separated from the remainder of the building by a fire separation having a 1.5 h fire-resistance rating.
For Part 9 Buildings:

a) Sentence 9.10.9.12.(1) specifies that not more than one suite of residential occupancy is permitted to be located in a building classified as Group F, Division 2 (medium-hazard industrial).

b) Article 9.10.9.16. requires storage garages to be separated from the remainder of the building by a fire separation having a fire-resistance rating of at least 1.5 h unless the garage is used by not more than 5 vehicles, in which case the rating may be reduced to 1 h.

c) Article 9.10.9.17 requires repair garages to be separated from the remainder of the building by a fire separation having a fire-resistance rating of at least 2 h. This requirement also acknowledges that some spaces are ancillary to the function of a garage and are entirely dependant upon it for their own existence. This makes it unreasonable if not impractical to provide fire separations between the garage and ancillary spaces.

CODE REFERENCES

1. Sentence 3.1.3.2.(2) states:

   3.1.3.2. Prohibition of Occupancy Combinations
   ...
   2) Not more than one suite of residential occupancy shall be contained within a building classified as a Group F, Division 2 major occupancy.

2. Sentence 3.2.1.7.(4) states:

   3.2.1.7. Automatic Fire Suppression Systems
   ...
   4) In addition to the requirements for sprinklers under Subsection 3.2.2., all floor areas or parts of floor areas of residential occupancy shall be sprinklered.

3. Articles 3.3.5.5. and 3.3.5.6. state:

   3.3.5.5. Repair Garage Separation
   1) A repair garage and any ancillary spaces serving it, including waiting rooms, reception rooms, tool and parts storage areas and supervisory office space, shall be separated from other occupancies by a fire separation having a fire-resistance rating not less than 2 h.

   3.3.5.6. Storage Garage Separation
   1) Except as permitted by Sentences 3.3.4.2.(4) and (5), a storage garage shall be separated from other occupancies by a fire separation with a fire-resistance rating not less than 1.5 h.
4. Sentence 9.10.9.12.(1) states:

**9.10.9.12. Residential Suites in Industrial Buildings**

1) Not more than one suite of residential occupancy shall be contained within a building classified as a Group F, Division 2 major occupancy.

5. Sentences 9.10.9.16.(1) and (2) state:

**9.10.9.16. Separation of Storage Garages**

1) Except as provided in Sentences (2) and (3), a storage garage shall be separated from other occupancies by a fire separation having not less than a 1.5 h fire-resistance rating.

2) Except as permitted in Sentence (3), storage garages containing 5 motor vehicles or fewer shall be separated from other occupancies by a fire separation of not less than 1 h.

6. Sentences 9.10.9.17.(1), and (2) state:

**9.10.9.17. Separation of Repair Garages**

1) Except as provided in Sentences (2) and (3), a repair garage shall be separated from other occupancies by a fire separation having a fire-resistance rating of not less than 2 h.

2) Ancillary spaces directly serving a repair garage, including waiting rooms, reception rooms, tool and parts storage areas and supervisory office space, need not be separated from the repair garage but shall be separated from other occupancies as required in Sentence (1).

**INTERPRETATION**

A building used solely for emergency response vehicles and associated personnel is permitted to be classified as Group F, Division 3 (light-hazard industrial) major occupancy, and any personnel quarters need not be classified as Group C (residential), provided:

1. The area used as personnel quarters does not exceed the area used for the storage of the emergency response vehicles,

2. The building is not designed nor intended to be used for repair of the vehicles other than for minor maintenance,

3. The building does not contain any areas that could be used for sleeping and personnel are required to be awake at all times, and

4. The building does not contain any other major occupancy.
NOTES:

1. If the area used for the storage of the emergency response vehicles is to be used for doing repairs, the building shall be classified as Group F, Division 2 (medium-hazard industrial) major occupancy.

2. If sleeping areas are provided or personnel are allowed to sleep during their shift, the portion of the building used for sleeping is to be:
   a) Classified as a Group C, residential occupancy,
   b) Sprinklered in accordance with Sentence 3.2.5.13.(2) if the building falls under the provisions of Part 3 of the Code, and
   c) Separated from the garage portion by fire separations in conformance with the appropriate requirements of Articles 3.3.5.5. and 3.3.5.6. or 9.10.9.16. and 9.10.9.17.