

# LIFE SAFETY ELECTRICAL CIRCUITS

This table shows the critical circuit to be protected, gives a summary of the relevant code requirements, and provides specific code article and clause references.

**TABLE 1 CODE REFERENCES**

Type of electrical circuit	NFPA requirements	2010 National Building Code (Canada)
Emergency Power Supply Generator to transfer switch, transfer switch to emergency distribution switch board	"...be a listed electrical circuit protective system with a minimum 2-hour fire rating" NEC Article 700	"...all buildings within 3.2.6." Ref 3.2.7.8(3)(b)(i) 3.2.7.8(3)(b)(ii) 3.3.2.7.10(1 to 9)
Firefighter's elevator	"...be a listed electrical circuit protective system with a minimum 2-hour fire rating" NEC Article 700	"...all buildings within 3.2.6. over 36 m in height" Ref. 3.2.6.5(6)(a) & (b) 3.2.7.9(1)(a) 3.3.2.7.10(1) "...buildings designed for barrier free access – nonsprinklered"
Fire pumps	"...be a listed electrical circuit protective system with a minimum 2-hour fire rating" NEC Article 695, NFPA 20	"...all buildings within 3.2.6." Ref 3.2.5.7. 3.3.2.7.10(1) Chapters 6 & 7 of NFPA 20
Pressurizing fans and smoke dampers	"...be a listed electrical circuit protective system with a minimum 2-hour fire rating" NEC Article 700 NFPA 101, Life Safety Code	"...all buildings within 3.2.6." Ref. 3.2.6.2(2) & (3) 3.2.7.9(1)(c) 3.3.2.7.10(1)
Smoke venting fans	"...be a listed electrical circuit protective system with a minimum 2-hour fire rating" NEC Article 700 NFPA 101, Life Safety Code	"...all buildings within 3.2.6." Ref. 3.2.6.6 3.2.7.9(1)(d) 3.2.7.10(1)
Emergency power for lighting and exit signs	"...for safe egress... must also be sufficiently illuminated..." NEC Article 700.16 NFPA 101, Life Safety Code	"...all buildings within 3.2.6." Ref. 3.2.7.4(1)(a) & (b)(i) 3.2.7.10(1) 3.4.5.1(4)
Fire alarm	"...survivability... notification appliance circuit... a 2-hour rated cable or cable system..." NEC Article 760 NFPA 101, Life Safety Code NFPA 72, National Fire Alarm Code	"...all buildings within 3.2.6." Ref. 3.2.7.8(1), (3)(a) & (3)(b)(i) 3.2.7.10(1)
Voice communication and firefighter's handsets	"...survivability... notification appliance circuit... a 2-hour rated cable or cable system..." NEC Article 760 NFPA 101, Life Safety Code NFPA 72, National Fire Alarm Code	"...all group B occupancies within 3.2.6." "...all other buildings within 3.2.6. over 36 m in height" Ref. 3.2.6.8 Ref 3.2.6.9(1)(2); 3.2.7.10(1) 3.2.7.8.(1)(3)(a), & (3)(b)(i)

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