



Coffee Break Training - Fire Protection Series

Inspection Techniques: Emergency and Standby Power Types and Classifications

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Learning Objective: The student will be able to explain the difference between emergency and standby power types and classifications.

The model building and fire codes direct users to performance and design criteria found in National Fire Protection Association (NFPA) 110, *Standard for Emergency and Standby Power Systems* when standby and emergency power supply systems (EPSS) are required. Level 1 or 2 systems are selected depending on whether the EPSS is for life safety features or other functions.

Once the level of service is established, the code official needs to approve the **type** and **classification** of system that will be installed.

In NFPA 110, the **type** of system describes the interval between primary power failure and restoration of emergency or standby power. The following table, Table 1, **EPSS Types**, lists the types of EPSS, their designations, and the expected times that they are to begin operation once the primary power source fails or falls below normal performance ranges.



This 1,500-gallon (5,678-liter) fuel tank is sized to fulfill the requirements of a Class 48 emergency power supply system (EPSS).

Table 1

EPSS Types	
Designation	Time to restore power
Type U	Unit*
Type 10	10 seconds
Type 60	60 seconds
Type 120	120 seconds
Type M	Manual

* Unit equipment typically is battery operated and is intended to operate nearly instantaneously.

Similarly, Table 2, **EPSS Classifications**, summarizes the amount of time that the EPSS is supposed to last at peak operating demand.

Table 2

EPSS Classifications	
Class	Duration
Class 0.083	5 minutes
Class 0.25	15 minutes
Class 2	2 hours
Class 6	6 hours
Class 48	48 hours
Class X	Demand-based

For additional information, consider enrolling in the National Fire Academy course “Fire Inspection Principles” (R0220) at <http://apps.usfa.fema.gov/nfacourses/catalog/details/47>.



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