

Construction Industry Communication #21

From: Amit Ghosh, Chief Building Official
Re: Level 1 Emergency Power Supply System Testing (EPSS)
Date: June 14, 2023

Background: Emergency power supply systems (EPSS), such as emergency generators, installed to provide power for items outlined in OBC 2702.2 requiring “emergency power” and other loads classified as level 1 (such as fire pumps) are required to be tested per section 7.13 of NFPA 110. This testing is critical to ensure that EPSS systems operate as intended to provide a safe building.

General Requirements

An acceptance test shall be scheduled under the electrical permit with our electrical department to witness the testing of the system for the requirements outlined in NFPA 110 section 7.13.4.1.4. This test can be performed by anyone that has knowledge of the system and the ability to conduct the test while witnessed by the electrical inspector. This will require approximately a two hour test to complete. Prior to the acceptance test starting, the required paperwork must be onsite from the manufacturer with the documents listed in NFPA 20 7.13.4.6

Additionally, prior to approving occupancy, a second part of the test is to be completed as follows. This test is a two hour full load test per NFPA 110 section 7.13.4.3. It is not required that the electrical inspector witness this two hour full load test, but documented results of the test must be provided to our department prior to approving occupancy. This document can be provided by the electrical contractor or generator representative and must include that the test has been completed and was successful as outlined in NFPA 110 - 7.13.4.3

For a partial occupancy to be granted, the two hour load bank test per NFPA 110 § 7.13.4.3 must be completed with approved documentation as well as a ten second cold start test. The required exit/emergency lighting must be operational in any area to be occupied. The actual testing of the entire emergency system per NFPA 110 § 7.13.4.1.4 will need to be completed prior to the building final approval.