

MGI CONSULTING, INC.

HEALTHCARE EMERGENCY AND STANDBY POWER SYSTEMS

Emergency Generator Testing in Healthcare Facilities – Based on NFPA 110, 2010 Edition

Intervals	NFPA 110 (2010 edition) Minimum Percentages of Nameplate Rating Required for Testing			
	Weekly ¹	Monthly ²	Annual Load Run ³	Triennial
Time - Minutes				
0-30	NA	30 ⁴	50	30 ⁵
30-60	NA	NA	75	30 ⁶
60-90	NA	NA	75	30
90-120	NA	NA	NA	30
120-150	NA	NA	NA	30
150-180	NA	NA	NA	30
180-210	NA	NA	NA	30 ⁷
210-240	NA	NA	NA	30 ⁷

Note: During the triennial test a monthly and an annual load run test can be performed simultaneously provided the required minimum percentages of nameplate loading for the annual load run (if needed) are met. (8.4.9.6)

Note: The definition of “nameplate rating” is not stated in NFPA 110. We suggest using the “standby” rating versus “prime” rating.

¹ NFPA 110 does not require a weekly load test or unloaded run – only an inspection. (8.4.1)

² NFPA 99 defines “monthly” as a time period between 20-40 days.

³ An annual test (commonly called a “load run” or “load bank”) is not required if the provisions of NFPA 110, 8.4.2 are met – i.e., either testing at 30% or greater of the generators name plate rating, or at manufacturer’s minimum exhaust gas temperature. (8.4.2.3)

⁴ The exhaust gas temperature option can be used if the temperature is equal or above the manufacturer’s recommended minimum.

⁵ Loading shall be not less than 30 percent of the nameplate kW rating of the EPS. A supplemental load bank shall be permitted to be used to meet or exceed the 30 percent requirement (8.4.9.5.1); or, loading that maintains the minimum exhaust gas temperatures as recommended by the manufacturer (8.4.9.5.2).

⁶ All automatic transfer switches must be in the emergency position. A 30% minimum of nameplate rating must be maintained during the entire test.

⁷ A load of 75% is required for the 4th hour if a load run is required (8.4.9.7)