

MGI CONSULTING, INC.

HEALTHCARE EMERGENCY AND STANDBY POWER SYSTEMS

Emergency Generator Testing in Healthcare Facilities – Based on NFPA 110, 2005 Edition

Intervals	NFPA 110 (2005 edition) Minimum Percentages of Nameplate Rating Required for Test			
	Weekly ¹	Monthly ²	Annual Load Run ³	Triennial
Time - Minutes				
0-30	NA	30 ⁴	25	30 ⁵
30-60	NA	NA	50	30 ⁶
60-90	NA	NA	75	30
90-120	NA	NA	75	30
120-150	NA	NA	NA	30
150-180	NA	NA	NA	30
180-210	NA	NA	NA	30
210-240	NA	NA	NA	30

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.

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.

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.

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

⁵ When combining an annual load test with a triennial test (8.4.9), a 25% minimum is required for the first 30 minutes; however, the Joint Commission requires a 30% minimum. The provisions of 8.4.9 will change in the next edition of NFPA 110.

⁶ NFPA 110, 8.4.9 states that the load *shall be the EPSS system load running at the time of the test* – i.e., all automatic transfer switches must be in the emergency position. The Joint Commission requires that a 30% minimum of nameplate rating must be maintained during the entire test. The provisions of 8.4.9 will change in the next edition of NFPA 110.