

Generator Fuel in Type1/Level 1 Systems for Life Support

There have been a few questions lately about the fuel source for generators in facilities that provide life support. If a facility cares for anyone on life support, the facility must have a type I generator and the fuel must be kept onsite. Piped in natural gas is not a dependable source of fuel. The lines break and if there is a leak or other issue that requires repair, then the fuel source will be shut down – sometimes affecting entire neighborhoods and small towns. The only time it is acceptable to use natural gas for a type I system is if the utility company will put in writing that the fuel source will not be affected by natural disasters. That is very different than saying the fuel supply is continuous. Any facility providing life support in an earthquake zone should not have piped in natural gas. If in doubt check the following website:

<http://earthquake.usgs.gov/regional/states.php>

This is not a new requirement and can be cited at K145, with the following regulatory references: NFPA Standard: The following energy sources shall be permitted for use for the emergency power supply (EPS): liquid petroleum products at atmospheric pressure or liquefied petroleum gas (liquid or vapor withdrawal) or natural or synthetic gas. Exception: For Level 1 installations in locations where the probability of interruption of off-site fuel supplies is high (e.g., due to earthquake, flood damage, or a demonstrated utility unreliability), on-site storage of an alternate energy source sufficient to allow full output of the emergency power supply system (EPSS) to be delivered for the class specified shall be required, with provision for automatic transfer from the primary energy source to the alternate energy source. Or the utility company can provide, in writing, a guarantee that their service would never be interrupted. 1999 NFPA 110, 3-1 NFPA Standard: The fuel supply for the generator set shall comply with 3-1.1 and 3-4.2 of NFPA 110, Standard for Emergency and Standby Power Systems. 1999 NFPA 99 3-4.1.1.13