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WHITE PAPER

A Quick Guide to Generator Maintenance

BY MARSHALL LEWIS
Technical Service Sr. Manager at Generac Power Systems

INTRODUCTION

You recently installed a generator. Now what? With the primary cause of generator failure being lack of maintenance, it is important to get on a scheduled maintenance program directly following installation. By doing so, you ensure the operability of the generator and that no unforeseen issues arise. By performing basic maintenance, you can prevent fuel problems, keep your machine running longer, increase efficiency and save money in the long run. Eight key U.S. market segments studied by energy consultant E Source forfeit about $27 billion per year due to power outages. This paper will address the importance of maintenance to prolong the life of the generator.

CONTINUED

WHEN ROUTINE MAINTENANCE IS NEEDED

Routine Maintenance and Operational Testing Chapter 8 of NFPA 110 contains the requirements for routine maintenance and operational testing, which must be based on the following:

- Manufacturer's recommendations
- Instruction manuals
- The authority having jurisdiction

NFPA 99 and NFPA 110 require routine maintenance, inspection and operational testing of the emergency generator and associated components to be overseen by a properly trained person. NFPA 110 does not establish a specific date and time of day for required testing. Those are to be determined by management and are typically scheduled so as to provide minimum disruption of facility operations.

NFPA 99, however, requires that generator sets be tested at health care facilities 12 times a year, with testing intervals of not less than 20 days nor more than 40 days. To meet federal certification and state licensure requirements, health care facilities must inspect their emergency generators weekly and they must exercise their emergency generators under load at least monthly. Level 1 emergency power supply systems, those installed where failure of the equipment to perform could result in loss of human life or serious injuries, are required to be tested at least once within every 36 months in accordance with NFPA 110.

Many manufacturers, including Generac, recommend model and application-specific information that will allow the best operation and performance for your generator. Most generators will need maintenance either quarterly, biannually or annually. If the generator is used more frequently, the recommended service should be performed more often. It is like driving a car, the more you drive, the more maintenance it needs.

WHAT MAINTENANCE SHOULD BE PERFORMED

Essential and necessary maintenance generally consists of the following:

- General inspection
- Lubrication service
- Cooling system service
- Fuel system service
- Battery testing
- Engine exercise

Your basic maintenance includes checking the lubrication system, cooling system and fuel system. More advanced preventative maintenance includes taking oil and coolant samples to get them tested to see if there is any metal or debris in the sample. The readings can forecast failures and that can prevent extensive generator repairs.

Batteries get old, belts and hoses deteriorate over time and critters can make a home inside a generator enclosure. A good maintenance program requires much more than simply changing the oil and filters.

WHY IS REGULAR MAINTENANCE KEY

Without regular maintenance and testing, it is not certain that your generator will start up and be able to provide the power you need. Having a trained technician inspect and test the complete generator system is the best way to ensure reliability. Most generator malfunctions are avoidable, and if serviced, the failure can be prevented. Maintenance can reduce the severe financial and life-safety risks associated with the loss of power. It also minimizes the need for repairs and reduces equipment life cycle costs.

Emergency generator sets are becoming required pieces of equipment at some facilities. With an increased dependency on backup power systems, proper testing and maintenance is becoming extremely important. A good maintenance program, that includes completing the manufacturer's recommended service, should be a standard practice for any customer's back-up generator system.

WHAT GENERAC OFFERS

Generac has a vast dealer network that makes servicing easier. Technical experts are there to stand behind you 24/7/365 with support, service and repairs. Generac also offers a wide array of genuine parts and accessories for your generator system. Products such as filters, oil, coolant, cold weather kits, and battery programs among others, make Generac a one-stop-shop. To help enhance performance, maintaining your equipment with original equipment manufacturer parts is key to the performance and reliability you count on when the lights go out.

CONCLUSION

Although you can perform simpler maintenance tasks yourself, it is essential that you have a professional service your generator. It is important to follow the maintenance schedule of the manufacturer specific to your exact model of generator. Working with a trained technician, you can determine when and what services are best performed based upon your particular usage. You should keep records of inspections and tests for future examinations. Performing maintenance correctly can help guarantee, that when called upon, your unit works as designed.