

PREVENTATIVE MAINTENANCE FACT SHEET

COMMON CAUSES OF GENERATOR FAILURE

Generator failure can lead to physical generator damage and catastrophic equipment failures costing you money and downtime.



Dry, Cracking, & Deteriorating Belts & Hoses

An abrupt shutdown can be caused by a damaged belt or hose. A hose failure can cause the engine to overheat leading to physical generator damage. Visible indicators of belt damage are random cracking across the ribs and pulling of the belts.



Lack of Fuel or Old/Bad Fuel

Diesel fuel must be maintained to be reliable. Sulfur, naturally occurring gums, waxes, soluble metallic soaps, water, dirt and temperature all degrade the diesel as it is handled and stored. These effects begin at the time of fuel refinement and continue until consumption.*



Low Coolant, No Coolant, or Lack of Oil

One of the most common causes of generator shutdown during normal operation is low coolant or engine oil. The generator has a fail-safe that shuts it down, or prevents it from starting, when there is low coolant or engine oil which can cause permanent damage to the engine.



Low or Dead Batteries

Battery failure is the number one source of a generator not starting. Battery failure can be caused by prolonged use, loss of plate capacity, and sediment buildup. Additionally, weather plays a big role in the duration of battery life and its usage. Extreme heat may cause accelerating positive grid growth, positive grid metal corrosion, negative grid shrinkage, and loss of acid/water.



Weather or Pest Damage

Floods, high winds and extreme climates can all play a vital role in generator failure and lead to physical equipment damage. In extreme temperatures, generators can require additional starting aids to be 100% operational such as a jacket water heater, battery charger and generator starting batteries. Additionally, pests can also cause damage by building nests in the generator's enclosure.

*Generac Professional Development Seminar Series GPS-200

WHEN THE POWER GOES OUT:

IN THE LAST 10 YEARS
**679 WIDESPREAD
POWER OUTAGES**
OCCURRED, COSTING
THE UNITED STATES AN
ANNUAL AVERAGE OF
\$18 TO \$33 BILLION

– National Geographic

FINANCIAL LOSSES FROM
POWER OUTAGES AT MISSION-
CRITICAL FACILITIES RANGE
FROM **\$20,000 TO
\$2 MILLION**
PER OCCURRENCE

– Department of Energy

THE AVERAGE COST PER
MINUTE OF AN OUTAGE
INCREASED FROM **\$5,617 IN
2010 TO \$7,908 IN 2013 TO A
CURRENT PRICE
TAG OF \$8,851**

– Eaton

THE LIFE CYCLE OF THE GENERATOR DIESEL FUEL VS. NATURAL GAS MAINTENANCE PLAN COMPARISON

MAINTENANCE ITEM	DIESEL	NATURAL GAS
Visual Inspection	●	●
Check / Change Engine Oil	●	●
Change Engine Oil Filter	●	●
Check / Change Air Filter	●	●
Inspect / Change Belts & Hoses	●	●
Inspect / Replace Starting Batteries	●	●
Replace Controller Battery	●	●
Inspect / Change Engine Coolant	●	●
Perform Load Bank Test	●	●
Change Fuel Filter	●	
Inspect / Clean Fuel Tank	●	
Analyze Fuel	●	
Diesel Fuel Treatment	●	
Fuel Polishing (restore old fuel)	●	
Document Maintenance	●	●

PREVENTING FAILURES THAT LEAVE YOU IN THE DARK

Having a solid maintenance plan in place prevents system failure and ensures that your business is up and running when the power goes out. A Generac Industrial Distributor in your area can help you create and put a maintenance plan into place giving you the peace of mind you deserve. They are there to support your maintenance needs 24/7 ensuring that your backup power assets are protected.

For more information or to learn more,
visit us online or call us at:



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POWER**

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