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The need for a Linear/1 UPS with a Generator

Many people in the medical arena feel that with a generator in the line as an emergency backup for when the electric power grid goes down that there is no need for UPS back up power or line conditioning. This is not true. What most people forget or just simply do not know are issues that should be of concern which I have listed herein below.

- A generator will kick in providing power only when the power grid goes down and stops providing electrical power.
 - The generator will take 10 to 20 seconds to start in which time the critical medical equipment will in fact stop operating unless it has an internal backup power supply which is usually a small supply meant to keep the medical equipment in question going during this short 10 to 20 seconds or in the case that the generator for some reason does not start will help provide an orderly shutdown of the critical equipment. This small internal backup is also very dependent on the need for good fresh batteries. One more thing that one needs to keep in mind is that after the generator starts there is a transfer switch which transfers your facility from the power grid to your generator. This transfer switch will always create a spike and like a lightning strike no one can predict where it will strike and many times will strike the critical medical equipment causing extensive damage at the most inopportune time. An additional item to consider with a generator is the “line noise” created by the armature/commutator when generating electricity. This noise can be very detrimental to sensitive critical medical equipment internal components such as circuit boards.
 - With the Linear/1 UPS in the system the backup time is increased to 10 minutes or more depending on the load and the size of the UPS. The Linear/1 UPS is also a power conditioner that will filter out the spike created by the transfer switch, and the noise created by the generating of the electric power.
 - One major element to keep in mind with an emergency generator in the line is that the generator will start up providing electric power **only** after power is lost from the power grid which is the only single purpose a generator serves.
 - With the Linear/1 UPS in the line monitoring the generator and the power grid continuously correcting power infractions as needed. One infraction is “sagging

power” more commonly known to the general public as a “brown out”. During these times of sagging power which a generator does not address, your critical medical equipment is struggling to operate on minimal input power which is creating stress on circuit boards eventually causing circuit board components to blow destroying the circuit board shutting down your equipment which could happen at a critical moment of operation.

Everyone that works in the medical arena on patients with sensitive critical equipment should note the justification for placing the Linear/1 UPS in the line with a generator. If you do not have a generator Accratech has battery cabinets available that when connected to the UPS will provide additional run time fulfilling your backup time requirements.

The Linear/1 UPS manufactured by Accratech, Inc. certified UL 60601-1, 3rd Edition, the Last word in perfect power providing safe conditioned, continuous electrical power for your professional medical team using sensitive critical medical equipment on patients that are expecting a perfect procedural outcome.