



# case study

## Hospitals Rely on I-Gard for Electrical Safety

One of the constant issues facing hospitals is electrical reliability. While significant focus, attention and capital are applied to backup power systems including generators, battery and UPS to protect critical processes and power factor correction equipment, an often overlooked issue is electrical ground faults. According to the authors J.R. Dunki-Jacobs, F.J. Shields and Conrad St. Pierre of Industrial Power Systems Grounding Design Book, 95% of all electrical outages are caused by ground faults.

# unparalleled protection

### Industry

Hospital

### Need

Need to reduce costs

### Benefit

Reduce cost of repairs, maintenance, less equipment failure, run critical processes even with 2<sup>nd</sup> ground fault



### Sample installations

- ▶ Hospital Sacre Coeur
- ▶ Hospital For Sick Children
- ▶ Listowel Memorial Hospital
- ▶ North Bay Psychiatric Hospital
- ▶ North Bay Regional Health Centre
- ▶ Peterborough Regional Health Centre
- ▶ Scarborough General Hospital
- ▶ Sherbourne Health Centre
- ▶ St. Michaels Hospital
- ▶ Sunnybrook Health Centre
- ▶ Tillsonberg District Hospital
- ▶ William Osler Health Centre
- ▶ York Central Hospital
- ▶ San Diego Hospital

Many hospitals, whether in their main electrical distribution or for application on their emergency generators, are choosing high-resistance grounding as their method of choice.

Originally, high-resistance grounding as a technology was applied to process industries as diverse as food processing, mining and petrochemical. In the last 10 years it has been increasingly applied to commercial installations such as airports, data centers and hospitals to enhance the reliability and uptime of power distribution equipment.

High-resistance grounding allows continuity of service in the event of a ground fault that would cause an outage on a solidly grounded system.

With respect to emergency generators, resistance grounding not only ensures reliability but lessens stator damage and repairs due to ground faults.

Standard concerns with high-resistance grounding, such as risk of the loss of the neutral path due to poor connection, broken wires, corrosion, etc., are addressed by applying the I-Gard DSP relay system, the industry's only SMART HRG relay.

With the I-Gard DSP Ohmni, the neutral path is continually monitored and an alarm is given should the system deviate from normal conditions. There is also the option to install a second redundant resistor circuit for fail-safe operation. In addition, only the I-Gard DSP Ohmni allows continuity of service in the event of a ground fault and also offers additional critical process protection where a second ground fault can be detected and a lower priority feeder can be isolated rather than the whole system being compromised.

