



Saft batteries play vital supporting role at the Sydney Opera House



Two banks of SBM nickel-cadmium (Ni-Cd) batteries support emergency power systems

Lightweight long-life batteries and flexible project team

Saft's SBM Ni-Cd batteries have been providing the energy storage for backup power systems at Australia's iconic Sydney Opera House since 1992. Saft passed the audition for this key supporting role at the prestigious 6,000 capacity venue thanks to the high quality of its batteries, an experienced project team and a detailed installation plan. Tucked away behind the scenes, the opera house battery room is located down three narrow flights of stairs in a room where the maximum floor loading of the floor limits the weight of the batteries that can be installed.

Complication was added by the venue's crowded performance schedule, which meant that all work had to be carried out overnight.

The project was a complete turnkey installation including:

- Removal and recycling of the old batteries and battery chargers
- Manufacture and supply of two new banks of 190 SBM Ni-Cd cells, two chargers and a two-stage diode regulator to maintain supply within tight voltage limits.
- An installation plan which avoided interfering with the busy performance schedule
- Long-term product support and maintenance.

Case study



SAFT

Ideal for emergency power

Saft's Ni-Cd batteries are specially designed for backup power and bulk energy storage. They are significantly lighter than traditional lead-acid batteries and have a longer life, leading to a low Total Cost of Ownership. The system was designed to provide 100 kW for two hours with 16-hour recharge capability.

Saft battery systems – key features

- SBM cells can provide power for emergency backup systems that require continuity for anything from 30 minutes to three hours
- Ni-Cd cells are robust and lightweight, suitable for spaces with size and weight restrictions
- Minimum life of 20 years
- Complete turnkey installation by a professional and flexible installation team
- Designed to suit backup power applications
- Ni-Cd cells offer high energy density, long life, low life cycle costs and high resistance to electrical and mechanical abuse



Saft SBM batteries – key benefits

Saft Ni-Cd block batteries are one of the world's most reliable power backup systems and the SBM range is typically used in backup applications to give:

- Totally reliable and low maintenance power backup with no risk of thermal run-away or sudden death
- Sustained loads for 30 minutes to three hours
- Mixed loads with a mixture of high and low discharge rates
- Frequent or infrequent discharges
- With only periodic checks, up to 20+ years of faithful service
- Wide operating temperature range of -20°C to $+50^{\circ}\text{C}$ and toleration of extremes of -50°C to $+70^{\circ}\text{C}$ for short periods



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