From the deserts of Arizona to the frozen land of Antarctica, Sierra Monitor goes to the end of the earth to meet the interoperability needs in building automation systems. At the McMurdo Station on Antarctica the operator of the power station needed to interface information from the Caterpillar generators to the BACnet network. The integrator, Long Building Technologies of Denver, Colorado was assigned to solve this interoperability problem and came to Sierra Monitor. Sierra Monitor has been providing Caterpillar interface to building automation systems for many years and was able to meet their need.

Leslie Gallup from Long Building Technologies braved the long journey to the McMurdo Research Station Antarctica to commission and install various pieces of equipment including the FieldServer. Three Caterpillar Generators provide the Electrical power to run the NSF (National Science Foundation) research station. Since the Electrical power is critical to the survival of the personnel in such hazardous conditions, monitoring of the generators is critical to ensure continuous operation. Due to the extreme conditions with temperatures reaching –50o C, there are three levels of redundancy built into the power plant. Sierra Monitor provides the interface from the SCADA (Supervisory Control and Data Acquisition) to the Generators.

As one can imagine the technical support for this installation was unique. Due to satellite positioning, communication to the McMurdo Station is only available between approximately midnight and 10:00am (New Zealand time which is the time used at the South Pole) so all Sierra Monitor technical support was conducted between 7:00am – 10:00am which is 10:00am – 1:00pm PST.

The FieldServer's communications capabilities coupled with email and telephonic communication between Sierra Monitor technical support and Leslie on site made it easy to commission the FieldServer. Once the generator addressing was determined the installation was as simple as connecting up the FieldServer FS-B2010 to the Caterpillar CSM modules. The data was converted via FieldServer from Caterpillar to BACnet/IP to integrate into the onsite monitoring system (Tridium).

Sierra Monitor Corporation
1991 Tarob Court, Milpitas, California 95035 USA
O. +1 408 262-6611   **TF.** +1 800 72 SIERRA (74377)   **E.** sales@sierramonitor.com
www.sierramonitor.com

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