

The Value of Critical Information

The Construction Information Service
Morrison Construction



The Source

for Critical Information and Insight™

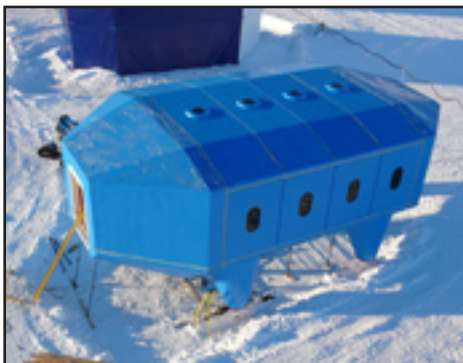
Objective

In 2006, Morrison Construction was awarded a £22 million contract to design and build the new Halley VI Research Station in Antarctica for the British Antarctic Survey (BAS). The buildings will be located on skis on the Brunt Ice Shelf which is a 200m thick glacier moving at the rate of 0.5 km per year. For Morrison Construction having access to crucial British Standards and technical information is essential throughout the design and construction period of this important project.

Solution

Morrison Construction, a long-standing IHS customer, subscribes to a range of IHS services including: The Construction Information Service, Specify-it and The Occupational Health Information Service.

The Halley VI project meant that information held within all these products has not only helped during the design stage but will be a source of critical information as they move forward with this project.

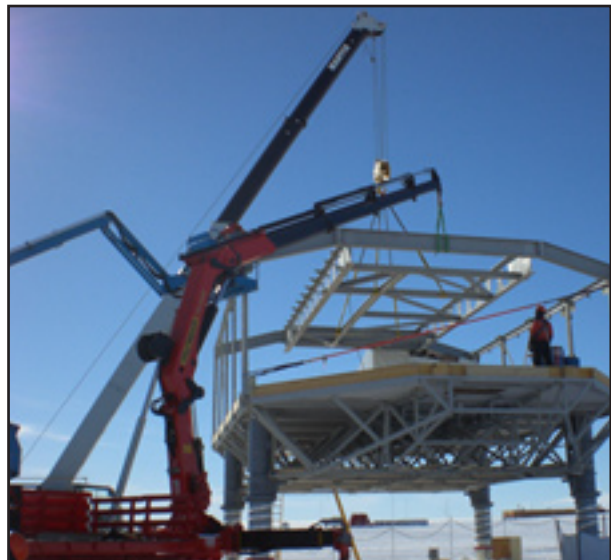


Why IHS?

The Construction Information Service, developed in partnership with NBS, is a knowledge tool that delivers key technical information critical to all construction projects in one easy-to-use online package, providing Morrison Construction immediate access to current standards, regulations, technical guidance when they need it. An indispensable source of key information, tailored to meet the customer's needs.

Specify-it is a comprehensive collection of construction component and equipment information for the construction industry professionals, covering both UK suppliers and overseas suppliers with recognised UK agents.

IHS is a single source for critical information helping customers to harness the power of information to improve their business results.



The Challenge

In addition to providing support services for up to a maximum of 52 people, the Halley Research Station has to withstand both the severe climate where temperatures can drop to -56°C, and isolation as the Antarctica is 10,000 miles away from the UK, with access limited to between December – February.

The BAS project presents Morrison Construction with a range of challenges, calling for quick reference to up-to-date standards and technical materials. Roger Saunders – Senior Design Manager at Morrison Construction, draws on his 15 years design management experience to support others working on the project. Managing the design process, involves a close working relationship with Architects, Structural Engineers, Building Services and specialist Design Manufacturers. Saunders primary role is to ensure that the Morrison team undertaking the work are provided with the necessary design information. To ensure the highest standards he works closely with the teams to help resolve design problems as they arise.

The harsh environmental conditions that Antarctic imposes on the project, both during and after the construction meant that the team need to consider a number of unusual technical issues. A major concern for both client and designers is also created by the prolonged isolation of the Halley station, the nearest UK base to Halley VI Research Station is an 8 hour flight. The transport route for both the routine BAS supplies and the Morrison construction materials involves a 20km sled ride across the ice shelf to open water, the final section being across a section of fragile sea ice, this sea ice meant that BAS imposed a maximum weight limit of 9 tonnes for any load including the sledge. The isolated location makes it essential that any potential problems with the construction materials are resolved before shipment.

Fire inside the station is a major concern, the modules are designed to minimise the threat of fire and reduce its potential spread. Coupled with the extreme conditions the external cladding materials not only have to provide excellent insulation, be lightweight for transportation, yet contain the fire with minimal smoke and fume emissions so as to allow for safe evacuation of personnel. This design challenge meant that Saunders often had to cross check and reference standards and information from The Construction Information Service sources, helping to ensure that the correct materials were specified.

The technical challenges are not just above ground, tunnels dug into the ice shelf for scientific research, meant the use of conventional emergency lighting and associated batteries could not be used due to the low temperatures therefore having to identify and specify products that would withstand the extreme conditions. Without access to the IHS information, this could have taken an excessive amount of time.

With temperatures as low as -56°C, buffeted by winds in excess of 100 mph, with snow levels growing by 1 metre per year, located where for 105 days the sun doesn't rise above the horizon, the Halley VI project presents many challenges for Roger Saunders – Senior Design Manager, making it essential that he has the right tools to resolve issues as they arise.

Throughout the process Saunders works with multidiscipline design teams to resolve technical difficulties, drawing on The Construction Information Service to cross reference technical guidance and British Standards. Saunders feels that sourcing Standards was made easier with the IHS service, as "Without The Construction Information Service my job would have been much harder".



If you would like further information as to how IHS can support your organisation or require additional information about The Construction Information Service, then contact us on 01344 328000 or email marketing@ihs.com.



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**Information & Expertise
In Partnership**

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