



IMS System – Project Highlights

The Natural History Museum, London, UK

THE BACKGROUND

The Natural History Museum is home to an excess of 22 million “wet” specimens stored in sample bottles in preservative. It is the world’s biggest collection of preserved life forms. These priceless specimens have been collected over the last three centuries by notable explorers including Charles Darwin and Captain James Cook. As well as providing public access to important natural artifacts, the collection is also used by scientists for ongoing research.

THE CHALLENGE

The formaldehyde or industrial methylated spirit (IMS) the museum specimens are stored in requires ongoing management and maintenance. This maintenance involves carrying heavy containers of alcohol through various floors and parts of the museum building with all the associated risks involved.

A dangerous substance and explosive atmosphere regulations (DSEAR) risk assessment completed by GSE Systems identified which current regulations controlling such substances would likely lead to a revised building classification. GSE prepared a scheme for a new IMS storage and distribution system which would meet all current standards and legislation.



GSE prepared a successful scheme that satisfied all legislation requirements and enabled the Natural History Museum to continue its mission to preserve the world’s largest collection of specimens for future generations.

THE SOLUTION

GSE Systems produced a successful scheme for the storage facility in the Museum's Darwin Centre which adheres closely to current best practices. The scheme not only satisfied all legislation requirements but also worked around many physical constraints imposed by the site location in the centre of London. The new IMS storage facility and internal pumped distribution system allows topping up of specimen jars within the labs on each floor of the building.

THE RESULTS

The Natural History Museum is able to continue its mission to preserve the world's largest collection of specimens for future generations. The GSE-designed system is equipped with a fully automated control system with touch screen operator interface and web access facility. NHM staff can view the status of the system from any location within the museum.

GSE Systems also worked with the museum staff to develop a range of safety protocols which, alongside other automated monitoring precautions, ensure any losses and leaks are quickly identified.



GSE is proud to have been associated with a national institution and we have been able to demonstrate our cradle-to-grave approach in managing this project from inception to beneficial operation. The project at the museum combines GSE's specialized skills and expertise in identifying and managing risks associated with potentially explosive atmospheres. Similar contracts have been completed for a wide range of customers including fuel storage facilities, a breakfast cereal manufacturer, an energy-from-waste plant, a soft drinks manufacturer and a high-tech filter manufacturer.

About GSE Systems

We are a next-generation simulation, training, and engineering services provider applying a world of experience to help you achieve the performance you imagine. GSE is a world leader in real-time high-fidelity simulation, providing a wide range of simulation, training and engineering solutions to the energy and process industries. Our comprehensive and modular solutions help customers achieve performance excellence in design, training and operations. GSE's products and services are tailored to meet specific client requirements such as scope, budget and timeline.

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