
# Hazardous area update from Expo - May 2023

Welcome to this update from Expo Technologies - your hazardous area partner.

In this edition:



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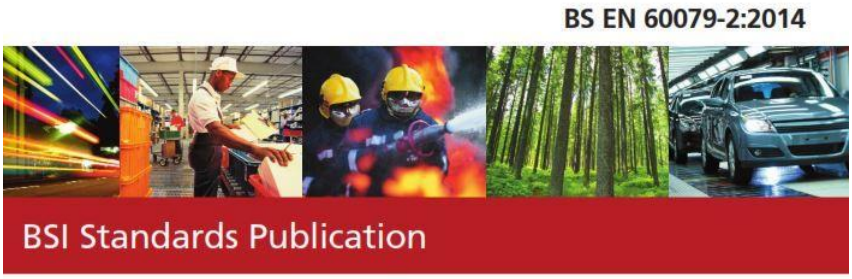
## 1. Featured Article – Purge & Pressurization Standard Update




Hazardous areas, where concentrations of flammable gases, vapours, or dusts can be present, provide some of the greatest safety challenges across facility design, construction, and installation.

With multiple protection options for equipment, engineers must determine the most cost-effective method to mitigate the risks, while ensuring compliance with local certification schemes and standards, such ATEX, IEC, NFPA and many others.

One of the simplest and most flexible protection methods is Purge and Pressurization (Ex p) which is covered in much of the world by IEC standard 60079-2, currently in its 6th Edition. The 7th edition has been in preparation for some time and is due to be published in January 2024.

Read this article by Expo's Steve Pilgrim on two significant changes in the new version that might make projects a little more straightforward.

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## 2. Featured Article – The Growing Prospects of Hydrogen Economy


Hydrogen is emerging as a promising alternative in the quest for clean energy solutions amidst the global energy crisis. Recent statistics reveal a growing demand for hydrogen, exceeding pre-pandemic levels and driven by its substitution for traditional fossil fuels in refining, industry, and new applications. This demand surge has been attributed to its potential to decrease dependency on fossil fuels and enhance energy security.

Even though hydrogen holds great promise as an alternative to fossil fuels and can play a vital role in achieving global climate goals. Prioritizing actual deployment is crucial to meet growing demand and address the obstacles hindering its adoption.

See our article to learn more about prospects of Hydrogen economy.

## 3. Featured Application – Enclosure Cooling

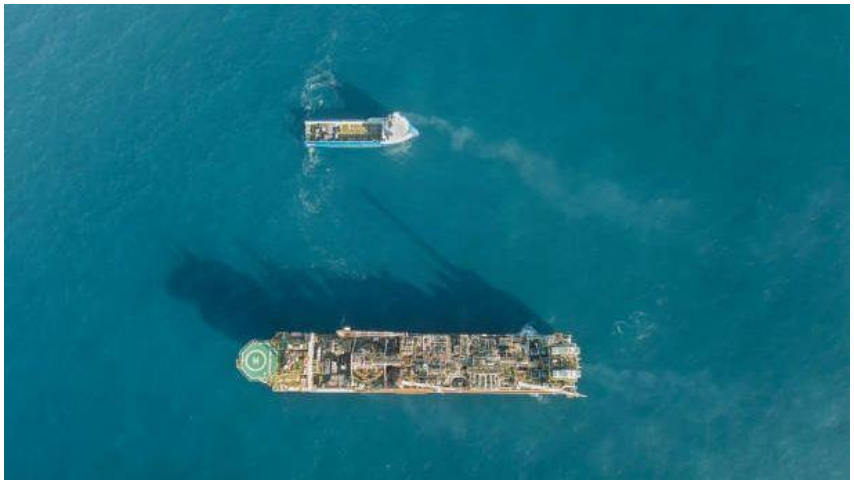
As changes to the global climate potentially bring wider swings in ambient temperatures, ensuring electrical enclosures remain within their certified operating temperature limits is becoming more critical.

The possible need for cooling should always be considered for any enclosure project early in the design phase. Thermal calculations are straightforward, provided the heat generated by the electrical equipment is known, and the enclosure dimensions are decided.

Expo have published an Application Note on thermal management of hazardous area enclosures that includes a sample calculation.

Read the full application note here.

## 4. Featured Case Study – Development of Hazardous Area Electrodeionization Systems



The Expo team recently worked with a Norwegian engineering consultancy company to develop hazardous area water treatment systems for Installation on Floating Production Storage & Offloading (FPSO) vessels.

The challenge was to create pressurized enclosures capable of accommodating the large and heavy EDI cells, while considering thermal management and potential gas leakages.

The outcome involved a feasibility study, reinforced enclosures with sliding rail systems, flanged connections, gas leak detection systems, Type-X Minipurge for purging, and custom sun shields.

Read about our full case study here.

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