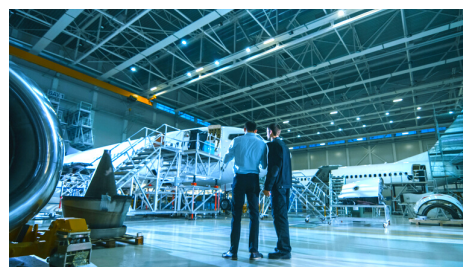


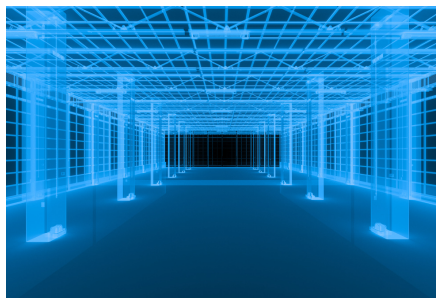
BUILDING SAFETY UPGRADES

Step 1 : Feasibility study (Audit GO / NO GO)

- Facility visit (e.g. R&D, manufacturing and maintenance centers)
- Inventory and evaluation of the technical characteristics of the existing building (heating system installed, natural ventilation, fire safety, etc...) and how they comply with the most up-to-date regulations



Step 2 : Study for upgrading building safety



- Identification of any hydrogen risks in the building (risk analysis by activity)
- Classification of ATEX zones around hydrogen systems
- Adaptation recommendations: technical support in listing equipment specifications (flameproof materials, workplace organization) to comply with ATEX zoning



Step 3 : Consultation of suppliers and building upgrade follow-up

- Consultation of suppliers about safety equipment
- Building upgrade follow-up and technical support for equipment commissioning
- Establishment of an explosion protection document (regulation mandatory)



ATEX calculations according to the norm NF EN 60079-10-1



- Release rate and volumetric gas flow rate
- ATEX zoning type and degree of dilution
- Radius of release
- Artificial-ventilation flow rate (if necessary)

Upgrades for a facility that hosts hydrogen activities



- Hydrogen detectors
- Fire detectors
- ATEX air extractors
- ATEX lamp and emergency lighting
- Antistatic flooring
- Vehicle grounding
- Warning signs
- Personal protective equipment (ATEX overalls, antistatic shoes, etc...)
- Training in hydrogen risks

Warning signs



ATEX ZONE

