



FUEL CELLS AND HYDROGEN
JOINT UNDERTAKING

COSMHYC DEMO

Online workshop on
Safe Storage of Compressed Gas Hydrogen
in road transport applications
and related infrastructure

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COSMHYC DEMO

Workshop on Safe Storage of Hydrogen



Project Brief

- Consortium: EIFER, SEZ, CCTVI, NEL, EIFHYTEC, MAHYTEC
- Safety responsible person : Rami Chahrouri, EIFER
- Inovative compression solution being demonstrated in a public HRS
- HRS location is in Tours, France. Public dual pressure HRS.
- Hydrogen storage mainly in compressed gas form (typical HRS configuration)



Safety Plan Document

- Deliverable in the COSMHYC DEMO project
- Documents the safety concepts of the individual components, as well as the global concept of their integration on-site
- Includes regulatory aspects and acts as a roadmap and guide to accompany safety-related activities within the project
- Living document that will be updated throughout the project and will include lessons learned
- Reviewed by the EHSP

Safety Plan Document - RCS

- One goal of the document is to prove conformity with all relevant applicable regulations
- This includes:
 - European directives and standards: such as the low voltage, pressure equipment, machinery and ATEX directives
 - French national regulations: ICPEs, work safety regulations, traffic regulations, etc...
 - Local requirements: DREAL, local declarations & authorisations, planning, local fire departments, etc...

Safety Plan Document – Site Topography

- Site-specific characteristics of the project are described in detail
- This includes:
 - Different areas and subsystems of the project site, their functions, accessibility (public, delivery or restricted), and present risks
 - Site & environment surrounding the project area. Critical aspects such as ground water, earthquake risk, flood risk, lightning, EM radiation, etc...
 - Identify need for lighting, barriers, safety signs, opening hours, etc...
 - Site specific safety/danger study and risk assessment, including ATEX zones, distances to public areas, etc...

Safety Plan Document – Components

- All Components and subsystems are looked at in detail: Dispenser, Station Modules, Storages, Compressors, Delivery area, etc...
- Safety concepts of each component analysed and validated
- Responsible/owner/operator identified
- Maintenance plan and recurring inspection schedule (calibration/tests/etc...)
- Interactions, connections and distances between components



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