



FUEL CELLS AND HYDROGEN
JOINT UNDERTAKING

FCEV Underground Parking

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18 November 2021

Underground Parking of Hydrogen Vehicles

Workshop on Safe Storage of Hydrogen



Risk of FCEV Underground Parking prohibition



France



French ministry of internal affairs states the following at page 23 of their covered parking safety practical guide:

“Therefore, pending further trials and feedback, it is recommended to park vehicles in uncovered spaces (roof terrace for example).”

Source:
https://www.sitesecurite.com/contenu/erpps/guide_2018_01_30_de_preconisations_ps.pdf



Austria

Austrian Building Regulation: OIB-330.2-014/19 Clause 8.1

“Hydrogen and LPG vehicles are not allowed to park underground.”

- >50m²
- Some other conditions (Special fire protection concept)
- Seems not to be the case for CNG

Source:
https://www.oib.or.at/sites/default/files/richtlinie_2.2_12.04.19_0.pdf



The Netherlands



Ministry of Internal affairs

Request to NEN to create a standard about fire safety and risk assessment in underground parking garages.



Dutch Standardization Institute

Current situation:

Risk that FCEVs will not be allowed to park underground



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Root Causes for not allowing FCEVs to park underground

- Not enough information for construction engineers or fire departments
- Many (hydrogen) scientific papers are based on CNG issues. (High failure %)

Countermeasure

- Detailed document or website needed for construction engineers, authorities and fire departments that explains that hydrogen vehicles are safe so they are allowed to park in underground garages or covered areas.



Hydrogen cars in parking garages



Source: <https://www.ifv.nl/kennisplein/Documents/20210209-IFV-Hydrogen-cars-in-parking-garages.pdf>





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