



HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

H₂ Production & Storage sites Irish Authority Approach

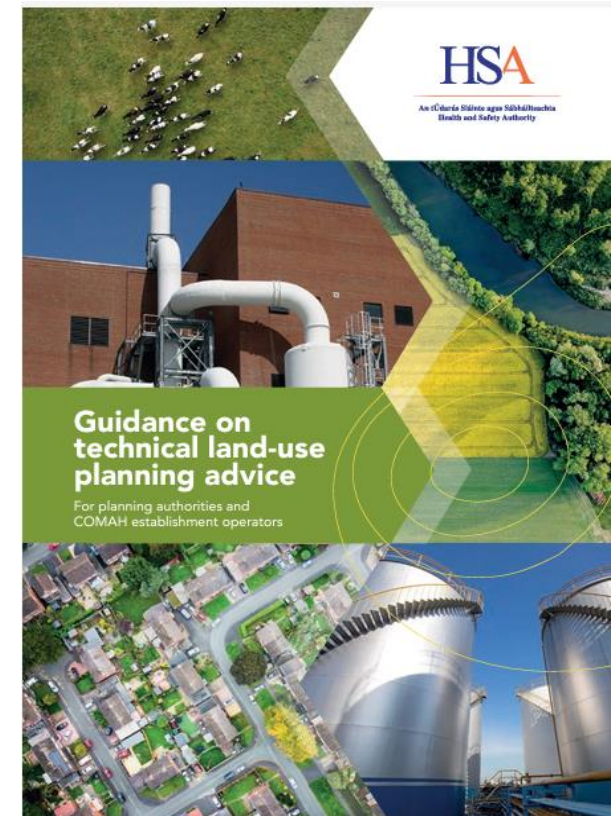


Noreen Quinn, Inspector
15th September 2023

Technical Land Use Planning (TLUP)

- Technical detail - TLUP risk contours for the hydrogen sector – February 2023

https://www.hsa.ie/eng/your_industry/chemicals/legislation_enforcement/comah/land_use_planning/hsa_approach_to_land_use_planning.html



Identifying Hydrogen loss of containment scenarios

- Engagement of external experts
- Review of past incident data
- Relevant codes & standards
- Assessment of H₂ key properties & hazards versus hydrocarbon-based fuels

Types of H₂ installations proposed

- Injection into national gas network
- Electrolysis of water, O₂ vented off
- Removal off site by tube trailer / road tanker
- Transfer to Power generating station – peak demand

TLUP H₂ Guidance LOC scenarios

- Fixed Installations – outdoor VCE/Fireball – 5×10^{-6} per year
- Fixed Installations – indoor VCE/Fireball - 5×10^{-6} per year
- Road Transport units – VCE/Fireball - $N \times (5 \times 10^{-7})$ per year
- Pipelines – like Natural Gas assume 100% ignition probability
- Uncertainties in approach



HSA

An tÚdarás Sláinte agus Sábháilteachta
Health and Safety Authority

Go raibh maith agaibh
Thank you

T: 0818 289 389

E: contactus@hsa.ie

W: www.hsa.ie

