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## Overview

This Standard is about identifying, assessing and controlling hazards in the production of Hydrogen.

You will identify and assess potential hazards and risks associated with hydrogen production, such as flammability, explosion, and toxicity, and control them in line with organisational and legal requirements.

This could include individuals working in the following industries, Chemical, Petro-Chemicals, Storage and Energy production.

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## Performance criteria

- You must be able to:*
- P1 identify potential hazards and risks associated with hydrogen production, in line with organisational and legal requirements
  - P2 produce risk assessments for hydrogen production in line with organisational and legal requirements
  - P3 review and update risk assessments to ensure they remain effective and up to date in line with organisational and legal requirements
  - P5 implement organisational controls to mitigate risks and ensure safe production in line with organisational and legal requirements
  - P6 use all necessary safety equipment and personal protective equipment (PPE) in line with organisational and legal requirements
  - P7 obtain the necessary work permits, clearances, and isolation permissions before entering the work area, in line with organisational and legal requirements
  - P8 apply safety procedures for hydrogen production, including safety checks, shutdowns, and emergency response procedures in line with the organisational and legal requirements

## Knowledge and understanding

*You need to know and understand:*

K1 hydrogen's primary physical properties, chemical properties and hydrogen embrittlement

K2 risks associated with hydrogen toxicity, combustion, flammability, and ex-plosive limits

K3 hydrogen production methods and technologies

K4 how to conduct risk assessments to meet organisational and legal requirements

K5 the importance of effectively communicating safety information, emergency response procedures, and proper personal protective equipment use to all personnel involved in hydrogen production to ensure the safe handling and use of hydrogen to meet organisational and legal requirements

K6 safety regulations related to hydrogen production to meet the organisational and legal requirements of hydrogen production

K7 organisational controls and mitigation strategies, including engineering and administrative controls to mitigate potential hazards and risks in hydrogen production to meet organisational and legal requirements

K9 the safety equipment necessary for safe hydrogen production, including personal protective equipment (PPE), alarms, and monitoring devices

K10 the types of gas detection equipment used in hydrogen production and the importance of regularly calibrating to ensure its accuracy and effectiveness

K11 the requirements for work area access, isolation permissions, working with gases, fire protection and extinguishing requirements for a hydrogen production environment to meet organisational and legal requirements

K12 the safety procedures for safe hydrogen production, including safety checks, shutdowns and emergency response procedures requirements to ensure worker safety

COGHP001

Identify, assess and control hazards in the production of hydrogen



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