



SAPIENZA
UNIVERSITÀ DI ROMA

Dipartimento
Ingegneria Chimica
Materiali Ambiente



MINISTERO DELL'AMBIENTE
E DELLA SICUREZZA ENERGETICA



CONSIGLIO NAZIONALE
DEGLI INGEGNERI



HYDROGEN SUMMER SCHOOL

18/19/21-June-2024
ENEA Casaccia Research Centre
and
20 June 2024
CNVVF Istituto Superiore Antincendio ROMA

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Q.M.S. Quality and Management Services s.r.l.®

School Program

Tuesday 18/06/2024

10:00 Registration

11:00 Institutional Welcome

Roberto Cianella

MASE- Ministero dell'Ambiente e della Sicurezza
Energetica

Giulia Monteleone

ENEA - Head of Energy Tech. and Renewable Sources
Department

Gaetano Iaquaniello

AIDIC

Plenary Session1 - Hydrogen Safety and Regulations Introduction

11:30 **Hydrogen value chain - State of the art**

Paolo De Filippis

Università La Sapienza

Giorgio Vilardi

Università La Sapienza

Hydrogen Safety and Regulations in Industry

Paola Russo

Università La Sapienza

13:00 Lunch

14:00 **Plenary session 2 – Hydrogen production, storage, transportation and utilization safety**

14:00 *Hydrogen safety in commercial vehicles: approach and challenges*

Marco Aimò-Boot

IVECO

14:30 *Safety in hydrogen storage system and distribution pipeline*

Alessandro Bertuletti

SIAD

15:00 Question time

15:30 Coffee break

15:50 **Interactive Session 1 - HAZARD IDENTIFICATION workshop: hydrogen production, storage and distribution plant**

17:30 End of day one

Wednesday 19/06/2024

09:10- 10:40 Plenary Session 3 - Regulatory Frameworks for Hydrogen Safety

09:10 *Hydrogen: international standards and italian regulation*
Claudio Ceccherini RINA

09:40 *Mission Innovation Demo Valley Project*
Paolo Deiana ENEA
Marco Ferraro CNR

10:10 Question time.

10:40 Coffee break

11:00 - 12:30 Plenary Session 4 - Best Practices in Hydrogen Safety and Emergency Management

11:00 *Asset management of equipment using Hydrogen*
Giuliana Zilli RINA

11:30 *Emergency preparedness in the hydrogen industry*
Piergiorgio Gallerati Q.M.S. Quality and Management Service s.r.l

12:00 Question time.

12:30 - 13:30 Lunch

13:30 - 15:00 laboratory tour

15:00 - 16:30 Plenary Session 5 – Lesson learnt from accidents in hydrogen facilities

15:00 *Historical review of accidents in industrial hydrogen production and storage facilities*
Stefano Bellini TECHFEM

15:30 *Experimental video recordings on hydrogen flame phenomena*
Marco Carcassi University of Pisa

16:00 Question time

16:30- 18:00 Interactive Session 2 - HAZARD IDENTIFICATION Case study: real hydrogen production, storage and distribution plant

18:00 End of day two

19:00-22:00 Social program

Thursday 20/06/2024

Workshop

ISA Istituto Superiore Antincendi
National Fire Fighters- High Education Institute

Safety aspects and operative experiences of some systems belonging to hydrogen value chain

09:00	Welcome session	
	VV.F Ing. Maria Cavaliere	Head of Istituto Superiore Antincendi
	VV.F Ing. Eros Mannino	Central Direction on Prevention and Technical Fire Safety
	ENEA Ing. Giulia Monteleone	Head of Energy Technologies and Renewable Sources Department
	CNI Ing. Tiziana Petrillo	Member of the National Council of Italian Engineers (CNI), delegate to safety and fire prevention
09:30 - 11:20	First session	
09:30	<i>Regulation and activities</i> Ing. Michele Mazzaro	VV.F Comandante di Napoli
9:50	<i>Integrated National Energy and Climate Plan</i> Ing. Antonio Anzecchini	VV.F Comandante Reggio Emilia
10:10	<i>Operative experiences on hydrogen tanks handling</i> Ing. Romualdo Marrazzo	ISPRA
10:30	<i>Safety and environmental safeguard regarding hydrogen production: analysis of issues related to storage and transportation and safety aspects on hydride tanks.</i> Ing. Egidio Di Ponzio	INAIL Unità operativa territoriale di certificazione, verifica e ricerca di Taranto
10:50	<i>HY_Responder Project</i> Donatella Cirrone	University of Belfast
11:10- 11:40	Coffee Break	
11:40 - 13:20	Second session	
11:40	<i>Modena experience on blending</i> Ing. Ermanno Andriotto	VV.F. Comandante di Modena
12:00	<i>Modena experience on blending</i> Ing. Alessandro Morgagni Ing. Marcello Bondesan	HERA HERA

	Speaker tbd	SNAM
12:40	<i>Regulation on electrolyzers</i> Ing. Salvatore Concolino	VV.F. Comando Reggio Emilia
13:00	<i>Energy savings of a Fire Department by green hydrogen utilization</i> Ing. Manuele Cattano	VV.F. Comando Siracusa
13:20	<i>The Hybla Project. Green Hydrogen and syngas production with CO2 capture</i> Ing. Sergio Corso	Sasol
13:40 – 15:00 Lunch		
15:00 - 16:30 Third session		
15:00	<i>Hydrogen as RFNBO and H2 plant regulations</i> Ing. Giuseppe Signoretta	Bureau Veritas
15.30	<i>Tin metal refinery Collesalvetti</i> Ing. Filippo Soremic	VV.F. Direzione Regionale Toscana
15.50	<i>Hydrogen Refueling stations: an example of exception to the fire prevention regulation</i> Ing. Michele Burgio Ing. Francesco Caruso	VV.F. Dirigente referente per la PI Direzione Regionale Sicilia VV.F Direzione Regionale. Sicilia
16:20-16:30 End of workshop		
16:30 -18:00 Interactive Session 3 - HAZARD IDENTIFICATION Case study: real hydrogen production, storage and distribution plant		

Friday 21/06/2024

9:00-9:30	<i>Process Hazards in medium/large scale hydrogen production facilities</i> Danilo Buccoliero Technip Italy Luciana Storti Technip Italy
09:30 - 10:00	Plenary Session 6 - "4th edition H2 summer School theme: Italian Hydrogen projects development state of the art" <i>Hydrogen value chain development outlook</i> Cristina Maggi- H2IT
10:00	Coffee break
10:20 - 12:00	Interactive section closed-out Team presentation.
12:00 - 13:00	Attendance certificate & Summer School Close-out
13:00	End of Summer School