

NUCLEAR VENTILATION 2017

Institution of
**MECHANICAL
ENGINEERS**

28-29 November 2017
Old Trafford, Manchester United
Football Club

More details available at
www.imeche.org/nuclearventilation2017

KEY SPEAKERS INCLUDE:

Ian Davies, Mechanical Engineering Specialist Inspector
– Nuclear Safety, Operating Facilities Division
Office for Nuclear Regulation

James Stewart, Computational Fluid Dynamicist
Health and Safety Executive

Bernard Swinnerton, Senior Mechanical Engineer
Sellafield Ltd.

Graham Lyons, Balance of Nuclear Island Team Lead
(Design Authority), NNB GenCo
EDF Energy Ltd.

Richard Hardy, Engineering Manager
Radioactive Waste Management

Jason Simpson, Project Manager
Dounreay Site Restoration Ltd.

Nuclear Power Division
Conference



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NUCLEAR VENTILATION 2017

28-29 NOVEMBER 2017, MANCHESTER

JOIN PEERS AND PRACTITIONERS AT THE LATEST NUCLEAR VENTILATION CONFERENCE.

Ventilation experts and nuclear engineers related to this field will greatly benefit from **technical insights, best practice and engineering case studies** discussed at this two-day conference. The programme is designed as a journey moving progressively towards more and more challenging aspects of nuclear ventilation projects, thus offering great **learning opportunities suitable for different experience levels**.

Learn from **regulators, licensees and contractors** including the Office for Nuclear Regulation, Radioactive Waste Management Ltd, Environment Agency, Sellafield Ltd, EDF Energy, Amec Foster Wheeler and other major stakeholders in the nuclear industry. Take this opportunity to learn about standards and solutions to challenges in key areas such as operational plants, decommissioning and containment.

Join the conversation about current issues in the industry during panel sessions and contribute to shaping the future of nuclear ventilation. The **Drinks Reception** and **Ventilation Dinner** are an additional occasion to forge valuable relationships for yourself and your company.

KEY PROGRAMME HIGHLIGHTS:

- Gain unique insights on regulation, best practice and inspection from **Office for Nuclear Regulation**
- **EDF Energy Ltd.** discusses a risk based approach to HVAC design
- Learn from **Sellafield Ltd.** about nuclear ventilation in a decommissioning environment
- Hear about best available techniques for gaseous waste management from **Environment Agency**
- Enhance your understanding of cost effective recovery of degraded ventilation with lessons from **Dounreay Site Restoration Ltd.**
- Listen to **Health and Safety Executive** discuss experiments and modelling from the PRISME project in relation to fires in plants

ATTEND THIS CONFERENCE TO:

- Take away invaluable lessons about nuclear ventilation from key organisations including **Office for Nuclear Regulation, Radioactive Waste Management, Sellafield Ltd., Environment Agency, EDF Energy Ltd. and Dounreay Site Restoration Limited**
- **Network** with site owners, contractors, regulators and solutions providers
- **Join the conversation** during question and answer sessions and panel discussions
- **Learn about crucial challenges, developments and projects** in nuclear ventilation in order to keep your strategy and systems up-to-date
- Spend valuable time networking by taking part in the **dinner and drinks reception**
- Establish **new business contacts and reconnect with established contacts**

ORGANISING / ADVISORY COMMITTEE:

Power Industries Division
Institution of Mechanical Engineers.

ORGANISING COMMITTEE:

Gordon Tait, Senior Project Manager
Dounreay Site Restoration Limited
Nial Greeves, Senior Business Executive
Frazer-Nash Consultancy
Gavin Smith, Superintending Inspector,
Professional Lead - Mechanical Engineering
Office for Nuclear Regulation
John Keeton, Principal Engineer
Dounreay Site Restoration Limited
Alistair Smith
Nuclear Consultant

A special thanks to the National Nuclear Ventilation Forum for supporting the event.

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TERMS AND
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PROGRAMME

TUESDAY, 28 NOVEMBER 2017

08:30	REGISTRATION AND REFRESHMENTS
09:00	CHAIR'S OPENING REMARKS
	PRINCIPLES, REGULATIONS AND STANDARDS
09:15	NUCLEAR VENTILATION DESIGN PROCESS Bernard Swinnerton, Senior Mechanical Engineer, Sellafield Ltd.
9:40	UPDATE FROM THE OFFICE FOR NUCLEAR REGULATION Ian Davies, Mechanical Engineering Specialist Inspector – Nuclear Safety, Operating Facilities Division, Office for Nuclear Regulation
10:05	NDA VENTILATION ENGINEERING GUIDES AND STANDARDS Bernard Swinnerton, Senior Mechanical Engineer, Sellafield Ltd.
10:30	QUESTION AND ANSWER SESSION ON "PRINCIPLES, REGULATIONS AND STANDARDS" PROGRAMME SECTION
10:45	NETWORKING REFRESHMENT BREAK
	NUCLEAR DESIGN AND TECHNOLOGY
11:15	BEST AVAILABLE TECHNIQUES FOR CONTROLLING CONTAMINANT SPREAD AND REDUCING FILTER CHANGE FREQUENCY Speaker to be announced, Frazer Nash Consultancy Ltd.
11:40	PERFORMANCE TESTING AND QUALIFICATION OF ADVANCED FILTER DESIGNS Charles Waggoner, Director and Research Professor, Mississippi State University Institute for Clean Energy Technology
12:05	BUILDING INFORMATION MODELLING (BIM) PROCEDURES IN THE NUCLEAR INDUSTRY Hugh Grehan, CS&A Project Coordinator (North), Cavendish Nuclear
12:30	QUESTION AND ANSWER SESSION ON "NUCLEAR DESIGN AND TECHNOLOGY" PROGRAMME SECTION
12:45	NETWORKING LUNCH
	VENTILATION APPLICATIONS
13:45	NUCLEAR VENTILATION IN A DECOMMISSIONING ENVIRONMENT Philip Dixon, Senior Ventilation Engineer, Sellafield Ltd.
14:10	VENTILATION OF A GEOLOGICAL DISPOSAL FACILITY Richard Hardy, Engineering Manager, Radioactive Waste Management Dr Davar Abi-Zadeh, Arup Fellow, Consultant, Ove Arup and Partners
14:35	CONTAINMENT FOR DECOMMISSIONING PROCESSING IN AN EXTERNAL ENVIRONMENT Chris Tuthill, Chief Engineer, Atkins
15:00	QUESTION AND ANSWER SESSION ON "VENTILATION APPLICATIONS" PROGRAMME SECTION
15:15	NETWORKING REFRESHMENT BREAK
	VENTILATION UPGRADE CASE STUDIES
15:35	COST EFFECTIVE RECOVERY OF DEGRADED VENTILATION Jason Simpson, Project Manager, Dounreay Site Restoration Ltd.
16:00	CHERNOBYL: KEY FACTORS FOR SAFE VENTILATION AND CONTAINMENT Gareth Watkins, Project Director, Hargreaves Ductwork Ltd.
16:25	VENTILATION CONSIDERATIONS FOR A PU GLOVEBOX WINDOW CHANGE John Goodhead, Facility Control manager, AWE plc; Martyn Page, Principal Asset Engineer (Nuclear Operations), AWE plc
16:50	QUESTION AND ANSWER SESSION ON "VENTILATION UPGRADE CASE STUDIES" PROGRAMME SECTION
17:05	TRAINING AND EDUCATION FOR THE VENTILATION COMMUNITY Panel Discussion <ul style="list-style-type: none">• What training is currently available?• How could the offer be improved?• What are the challenges for engineers training in nuclear ventilation?
17:30	CHAIR'S CLOSING REMARKS
17:40	END OF DAY ONE

PROGRAMME

WEDNESDAY, 29 NOVEMBER 2017	
08:30	REGISTRATION AND REFRESHMENTS
09:00	CHAIR'S OPENING REMARKS
	DESIGN CONSIDERATIONS
09:15	GASEOUS WASTE MANAGEMENT: BEST AVAILABLE TECHNIQUES IN PRACTICE Matthew Emptage, Nuclear Regulator, Environment Agency
09:40	SMOKE VENTILATION FOR NUCLEAR FACILITIES Rob Habberley, Head of Profession for Mechanical Engineering, Clean Energy, Project Delivery, Amec Foster Wheeler
10:05	THE TRANSPORT OF RADIOACTIVE AEROSOLS IN NUCLEAR VENTILATION FLOWS AND CONTAINMENTS Michael W. Reeks, Professor Emeritus of Fluid Dynamics, School of Engineering, Newcastle University
10:30	QUESTION AND ANSWER SESSION ON "DESIGN CONSIDERATIONS" PROGRAMME SECTION
10:45	NETWORKING REFRESHMENT BREAK
	FUTURE DEVELOPMENTS
11:15	THE CORRELATION BETWEEN NUCLEAR AND BIO CONTAINMENT VENTILATION Peter Williams, Technical Director, Clean Air Technologies Ltd.
11:45 Panel discussion	THE FUTURE OF NUCLEAR VENTILATION Where is ventilation technology heading?
12:15	NETWORKING LUNCH
	NUCLEAR POWER PLANT
13:15	NUCLEAR POWER PLANT: A RISK BASED APPROACH TO HVAC DESIGN Graham Lyons, Balance of Nuclear Island Team Lead (Design Authority), NNB GenCo, EDF Energy Ltd.
13:40	THE STATUS OF NEW BUILD REACTORS: FROM OPERATION TO DECOMMISSIONING AND DECONTAMINATION Dr Ronald R. Bellamy, Nuclear Air Cleaning Consultant and Retired Branch Chief, US Nuclear Regulatory Commission
14:05	ITER: DESIGNING VENTILATION SYSTEMS FOR FUSION Louis Sexton, Confinement Process Engineer, ITER Organization
14:30	QUESTION AND ANSWER SESSION ON "NUCLEAR POWER PLANT" PROGRAMME SECTION
14:45	NETWORKING REFRESHMENT BREAK
	SAFETY AND RELIABILITY CASE STUDIES
15:15	FIRES IN NUCLEAR POWER PLANTS: EXPERIMENTS AND MODELLING FROM THE PRISME PROJECT James Stewart, Computational Fluid Dynamicist, Health and Safety Executive
15:40	IMPLEMENTATION OF A QUIESCENT PASSIVE VENTILATION (OPV) SYSTEM FOR HYDROGEN MANAGEMENT Ian McDonald, Principal Ventilation Engineer, Cavendish Nuclear
16:05	QUESTION AND ANSWER SESSION ON "SAFETY AND RELIABILITY CASE STUDIES" PROGRAMME SECTION
16:15	CHAIR'S CLOSING REMARKS
16:25	END OF CONFERENCE

For the most up-to-date and detailed programme for the event, please visit:
www.imeche.org/nuclearventilation2017

- This programme is subject to change.
- The Institution is not responsible for the views or opinions expressed by individual speakers.

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WHO SHOULD ATTEND?

All professionals working in the nuclear industry are strongly recommended to attend. In particular those with the following roles will benefit from this conference:

- Technical Specialist - Nuclear Ventilation
- Nuclear HVAC Engineer
- Nuclear Ventilation Engineer

- Senior Nuclear HVAC Design Engineer
- Chief Engineer
- Nuclear Regulator
- Principle Fire Engineer
- Senior Ventilation Engineer
- Senior Technical Engineer
- Environment Officer

FEEDBACK FROM PREVIOUS EVENT:

“A UNIQUE BI-ANNUAL OPPORTUNITY TO SHARE LEARNING AND EDUCATIONAL MATERIAL IN A NICHE SUBJECT AREA”

Principal Asset Engineer, AWE

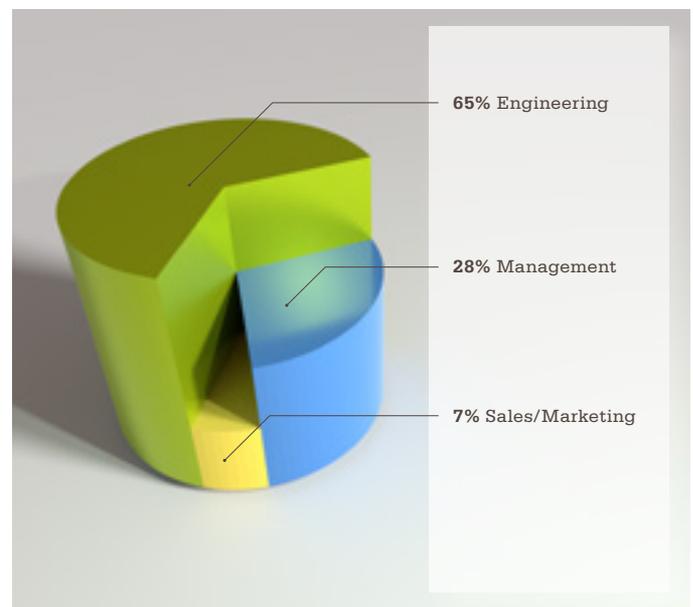
“HIGHLY RECOMMENDED TO ANYBODY INVOLVED WITH NUCLEAR VENTILATION”

Mechanical Engineer, Cavendish Nuclear

“THE MOST USEFUL GATHERING OF KNOWLEDGE & EXPERIENCE FOR THE NUCLEAR VENTILATION INDUSTRY”

Design Engineer, Babcock

ATTENDEE EXPERTISE



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HOW TO BOOK YOUR PLACE

FEES AND CHARGES

Registration fees include entry to the sessions, refreshments and a copy of the conference proceedings.

Delegate Type	STANDARD RATE
Member, IMechE/supporting organisation	£585 + VAT = £702
Non-member	£680 + VAT = £816
Student/Retired	£255 + VAT = £306

THREE WAYS TO BOOK

1 Online:
[www.imeche.org/
nuclearventilation2017](http://www.imeche.org/nuclearventilation2017)

2 Email:
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3 Phone:
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Please read the information listed below as each booking is subject to the Institution's standard terms and conditions.

CONDITIONS OF BOOKING

Completed application forms should be returned to the address above, along with the correct payment. Attendance at the event will be confirmed on receipt of the full balance. All participants are advised to bring a copy of their confirmation with them on the day, to ensure the fastest possible entry.

SPECIAL REQUIREMENTS

Please inform us of any special requirements, ie dietary or access, on the relevant section of the booking form or email eventenquiries@imeche.org

Cancellation

For a refund (minus £25+VAT admin charge), cancellations must be received at least 30 days prior to the event. Replacement delegates are welcome at any time. The Institution reserves the right to cancel any event. In this case, the full fee will be refunded unless a mutually convenient transfer can be arranged. In the event that the Institution postpones an event for any reason and the delegate is unable or unwilling to attend on the rescheduled date, they will receive a full

refund of the fee paid. The Institution is not responsible for any loss or damage as a result of a substitution, alteration or cancellation/postponement of an event. The Institution shall assume no liability whatsoever if this event is cancelled, rescheduled or postponed due to a fortuitous event, Act of God, unforeseen occurrence or any other event that renders performance of this conference impracticable, illegal or impossible. For the purposes of this clause, a fortuitous event shall include, but not be limited to: war, fire, labour strike, extreme weather or other emergency.

Please note that while speakers and topics were confirmed at the time of publishing, circumstances beyond the control of the organisers may necessitate substitutions, alterations or cancellations of the speakers and/or topics. The Institution reserves the right to alter or modify the advertised speakers and/or topics if necessary without any liability to you whatsoever. Any substitutions or alterations will be updated on the event's webpage as soon as possible.

LIABILITY

The organisers do not accept liability for any injuries or losses of any nature incurred by delegates and/or accompanying persons, nor for loss or damage to their luggage and/or personal belongings.

CONFERENCE VENUE

Old Trafford, Manchester United Football Club
Sir Matt Busby Way
Old Trafford
Manchester
M16 0RA

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HEAT RECOVERY STEAM GENERATOR USER GROUP 2017

21-22 November 2017, Nottingham

Join the HRSU community in Nottingham and learn from energy companies, engineering thought-leaders and technology providers

www.imeche.org/hrsu



THE INSTITUTION OF MECHANICAL ENGINEERS' ANNUAL DINNER

23 November 2017, London

Celebrate and show your support for the continued good work being done by the engineering community. Entertain clients, network with colleagues and reward employees in the company of over 300 engineers and industry leaders from around the world.

www.imeche.org/annualdinner

The Institution of Mechanical Engineers organises over 120 events a year, including free-to-attend lectures as well as conferences, seminars, annual luncheons and dinners. Please visit www.imeche.org/events for the complete list of events.

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