

TOPIC 9 – NUCLEAR REACTOR SAFETY AND REGULATION

Wednesday 21 October 2015
Conference Room, Nuclear Fuel Cycle Royal Commission
Level 5, 50 Grenfell Street, Adelaide SA 5000

Dr Gordon Edwards, Canadian Coalition for Nuclear Responsibility (Canada) (9am via video link)

Dr Edwards is the President of the Canadian Coalition for Nuclear Responsibility (CCNR) which he cofounded in 1975. CCNR is a not-for-profit organization, dedicated to education and research on all issues related to nuclear energy, especially those pertaining to Canada. Dr Edwards has devoted over 40 years to research into nuclear activities in Canada and throughout this period has provided consultant services to government and non-government bodies in relation to nuclear safety issues.

Topics to be addressed at this public session:

- ⊕ Introduction to the potential hazards of nuclear reactors
- ⊕ The evolution of CANDU reactor safety features over time
- ⊕ The optimal role of the regulator in ensuring safety of reactor operations.

Professor Per Peterson, Berkeley University of California, US (12.30pm via video link)

Professor Peterson teaches courses on reactor technology and reactor safety, amongst other topics, in the Nuclear Engineering Faculty at Berkeley. He has a particular interest in regulation and licensing of nuclear reactors and has served in many advisory roles to government bodies and organisations in the US in relation to nuclear safety issues. He is currently a member of the Diablo Canyon Independent Safety Committee which is responsible for periodic review of the operational safety at the Diablo Canyon nuclear power plant.

Topics to be addressed at this public session:

- ⊕ Philosophy and principles underpinning nuclear reactor safety
- ⊕ How modern nuclear reactor designs have evolved to meet those principles
- ⊕ Regulation of reactor safety – key features of a robust regulatory regime

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Mr Hefin Griffiths and Mr Mark Summerfield, Australian Nuclear Science and Technology Organisation (ANSTO) (2.30pm)

Mr Griffiths is the Head of Nuclear Services and Chief Nuclear Officer at ANSTO. Prior to working at ANSTO, Mr Griffiths spent over 20 years working in both the civil and military fields of the nuclear industry in the UK with a focus on nuclear safety and emergency planning. Mr Summerfield is the Leader, Technical Support, Nuclear Operations division at ANSTO. Prior to moving to Australia in 1998, he trained in nuclear engineering at the University of Manchester and worked for many years in the nuclear industry in the UK as a Systems and Safety Engineer.

Topics to be addressed at this public session:

- ⊕ Developments in reactor safety features and safety culture following major accidents
- ⊕ Key principles underpinning nuclear reactor safety
- ⊕ Deterministic and probabilistic safety assessments
- ⊕ Emergency planning and response.

Mr Peter Wilkinson, Noetic Group, (4pm)

Mr Wilkinson is the General Manager – Risk for Noetic, a firm providing professional advisory services across a range of industry sectors including national security and defence, infrastructure, mining, oil and gas. Mr Wilkinson specialises in the management and corporate governance of low probability but high consequence events associated with process safety risks in the oil, gas, chemical and mining industries. Mr Wilkinson was involved in the design of the Australian regulator for offshore petroleum and has provided many years of consultancy to government and industry in operational risk and safety management in hazardous industries.

Topics to be addressed at this public session:

- ⊕ Key components of a robust safety culture in hazardous industries
- ⊕ Effective means of managing low probability, high consequence risk
- ⊕ Essential characteristics of regulators of hazardous industries.