Polish industry for nuclear power sector

TECHNICAL WORKSHOPS

Quality issues

October 6-8, WARSAW			
GROUP: ELECTRICAL			
Day	**Hour**	**Topic**	**Expert**
Room 2			
6th October, Monday	**7:30 - 8:00**	**Coffee break**	
	8:00 - 9:00 (1h)	Welcome Presentation of Experts Introduction	**National Atomic Energy Agency (PAA) Poland**
	9:00 - 10:30 (1,5 h)	Electrical and instrumentation part of a nuclear power plant: construction, operation, standardization and quality requirements accreditation of certified laboratories	**National Atomic Energy Agency (PAA) Poland**
	10:30 - 10:45	**Coffee break**	
	10:45 - 12:15 (1,5 h)	**MODULE Aa: IEEE Standards** 1) Application of IEEE Standards in the Execution of AP1000® in Poland part 1	**IEEE USA**
	12:15 - 13:15	**Lunch**	
	13:15 - 15:15 (2 h)	**MODULE Ab: IEEE Standards** Production and assembly of electrical components in the nuclear sector according to the IEEE, EPRI and USA regulations part 2 1) safety classes 2) notified body 3) dual use products	**IEEE USA**
	15:15 - 15:30	**Coffee break**	

	15:30 - 17:30 **(2 h)**	**MODULE B: CFSI issues** counterfeit, fraudulent and suspicious items 1) General presentation of CFSI concept 2) Measures against fraud and counterfeiting in the nuclear environment (CFSI), 3) Numerous illustrations and concrete examples	**BUREAU VERITAS** **Belgium, USA**
Room 2			
7th October, Tuesday	**7:30 - 8:00**	**Coffee break**	
	8:00 - 10:00 **(2 h)**	**MODULE C: ELECTRICAL SYSTEM** Electrical system of AP1000 nuclear power unit.	**US Nuclear Regulatory Commission (NRC)** **USA**
	10:00 - 10:15	**Coffee break**	
	10:15 - 12:15 **(2 h)**	**MODULE D: I&C SYSTEM** Instrumentation and Control Systems of AP1000 nuclear power unit, 1) Relationships between the nuclear regulator, the investor and the supply chain 2) Quality assurance down the supply chain", including nuclear culture control (so-called "nuclear safety culture")	**US Nuclear Regulatory Commission (NRC)** **USA**
	12:15 - 13:15	**Lunch**	
	13:15 - 15:15 **(2 h)**	**MODULE Ea: EXPERIENCES OF THE MAIN SUBCONTRACTOR** 1) Entering nuclear markets (the so-called "industrial competency") 2) Process Instrumentation Design, Development, Qualification, and Maintenance in Pressurized Water Reactors - part 1	**Analysis and Measurement Services (AMS)** **USA**
	15:15 - 15:30	**Coffee break**	

	15:30 - 17:30 (2 h)	**MODULE Eb: EXPERIENCES OF THE MAIN SUBCONTRACTOR** 1) Practical experience of subcontracting company entering nuclear markets (the so-called "industrial competency") 2) Start-up and commissioning tests of new reactors (to include OE from AP1000s and anticipated challenges for next-generation reactors) - part 2	**Analysis and Measurement Services (AMS) USA**
Room 2			
	7:30 - 8:00	**Coffee break**	
	8:00 - 10:00 (2 h)	**MODULE F: GRADED APPROACH** 1) Implementation of Graded Approach principle for terms and conditions for qualification of products, services 2) Examples of implementation of GRADED APPROACH 3) Implementation of Graded Approach principle for iconic solutions in regard of inspecting of supply chain – subcontractors level; 4) Rules for implementation and practicing of so called “safety culture” and “nuclear quality” in regard of GRADED APPROACH context.	**BUREAU VERITAS France, Poland**
	10:00 - 10:15	**Coffee break**	
	10:15 - 12:15 (2 h)	**MODULE G: ISSUES RELATED TO STANDARD: ISO 19 443 : 2018 and NQA-1** 1) Presentation of standard 2) Differences between ISO 19 443 and ISO 9001 3) Actions and procedures necessary for implementation of ISO 19 443 in Polish industrial manufacturing, engineering and civil construction Contractors 4) Rules of implementation and practicing of Nuclear Safety Culture and Nuclear Quality Culture within ISO 19 443 context and considering the IAEA Harmonized Safety Culture Model 5) implemenation and costs of certification	**BUREAU VERITAS Belgium, Poland**
	12:15 - 13:15	**Lunch**	
8th October, Wednesday	**13:15 - 14:15 (1 h)**	**MODULE H: SMR's supply chain** Supply chain for SMRs - qualification procedure - how to become a qualified subcontractor for the nuclear sector	**GE Vernova Hitachi Energy USA**

	14:15 - 15:15 (1 h)	**MODULE Ia: MEGA PROJECTS / NUCLEAR PROJECTS MANAGEMENT** part 1. *(description in part 2- module Ib)*	**BUREAU VERITAS** **Belgium, Poland**
	15:15 - 15:30	**Coffee break**	
	15:30 - 16:30 (1 h)	**MODULE Ib: MEGA PROJECTS / NUCLEAR PROJECTS MANAGEMENT** 1) Fundamental notions on Nuclear Project Management 2) Leadership functions incl. Independent Nuclear Safety challenge and advise function 3) Efficient work sequences; 4) Insight into all main stages from the preparatory phase to plant turnover to commissioning. including Ageing Management Program 5) The international lessons learned: CASE STUDIES: two successful projects part 2.	**BUREAU VERITAS** **Belgium, Poland**
	16:30 - 17:30 (1 h)	**MODULE J: UDT** 1) Legal context of the technical requirements for equipment subject to technical supervision at the NPP 2) Equipment subject to technical supervision together with their protection systems, control and measurement apparatus and control systems. 3) Electrical equipment and circuits relevant to the performance of safety functions.	**Urząd Dozoru Technicznego (UDT)** **Poland**
	17:30 - 18:00	**SUM UP OF THE WORKSHOP** **Open Questions** **DIPLOMAS**	