IAEA/VINATOM National Training Course on PWRs Technologies and Passive Systems:
Competence Based Approach for Train-a-Trainer Programme with PC Based Basic Principle Simulators
December 4 – 8, 2017

Course Directors: **Ms. Tatjana Jevremovic (IAEA), Mr. Dung Manh Ho (VINATOM)**

Time	– Monday	– Tuesday	– Wednesday	– Thursday	– Friday
09:00	Participants and Instructors Arrive				
09:30-10:00	*Registration*	**Groups Projects** - Define the groups and assign the projects - Review the expectations for the final presentations *Ms. T. Jevremovic (IAEA)*	WWER Simulator: *Basic Principles of Normal Operation and Transients* *Mr Vyacheslav Zimin (MEPhI)*	Comparison of Westinghouse PWR and Russian WWER Designs *Mr Vyacheslav Zimin (MEPhI)* *Mr. Aitor Gutierrez Buruchaga (Tecnatom)*	Advanced Passive PWR Simulator *Technology and Practical Example* *Mr. Aitor Gutierrez Buruchaga (Tecnatom)*
10:00-10:30	**Opening Remarks** **Introduction of Participants and Instructors** *VINATOM & IAEA*				
10:30-10:45	Break				
10:45-11:30	*Overview* of the Course Content; Competence Based Approach in PWRs Physics and Technology Learning with PC based Simulators; *Train-a-Trainer* programme *Ms. Tatjana Jevremovic (IAEA)*	**Technical Visit to Full Scope Engineering Simulator** *Ms Tatjana Jevremovic (IAEA)* *Mr Andrey Sitnikov (IAEA)* *Mr. Aitor Gutierrez Buruchaga (Tecnatom)* *Mr Vyacheslav Zimin (MEPhI)*	WWER Simulator: *Basic Principles of Normal Operation and Transients* *Mr Vyacheslav Zimin (MEPhI)*	Advanced Passive PWR Simulator: *Technology and Practical Example* *Mr. Aitor Gutierrez Buruchaga (Tecnatom)*	Advanced Passive PWR Simulator *Technology and Practical Example* *Finalizing training reports* *Mr. Aitor Gutierrez Buruchaga (Tecnatom)*
11:30-12:30	Basic PWR Plant Design Features: *Systems and Components, Operational and Safety Margins* *Mr. Aitor Gutierrez-Buruchaga (Tecnatom)*				WWER Simulator: *Technology and Practical Example* *Finalizing training reports* *Mr Vyacheslav Zimin (MEPhI)*
12:30-13:30	Lunch				
13:30-14:30	Normal Operation and Accidents in PWRs	Advanced Passive PWR Simulator: *Basic Principles of Normal Operation and Transients*	WWER Simulator: *Basic Principles of Normal Operation and Transients*	Advanced Passive PWR Simulator *Technology and Practical Example*	**Submission of the training reports** **Panel Discussion** on the Use

Time					
	Mr. Aitor Gutierrez Buruchaga (Tecnatom)	*Mr. Aitor Gutierrez Buruchaga*	*Mr Vyacheslav Zimin (MEPhI)*	*Mr. Aitor Gutierrez Buruchaga (Tecnatom)*	of PC Based Simulators in Strengthening the Vietnam's Academic Learning and Hands-on Training on PWR Physics and Technologies *Ms Tatjana Jevremovic (IAEA) Mr Andrey Sitnikov (IAEA) Mr Vyacheslav Zimin (MEPhI) Mr. Aitor Gutierrez Buruchaga (Tecnatom)*
14:30-15:30	Basic WWERs Plant Design Features: *Systems, Components, Operational and Safety Margins* *Mr Vyacheslav Zimin (MEPhI)*				
15:30-15:45	**Break**				
15:45-16:45	Normal Operation and Accidents in WWERs *Mr Vyacheslav Zimin (MEPhI)*	Advanced Passive PWR Simulator: *Basic Principles of Normal Operation and Transients* *Mr. Aitor Gutierrez Buruchaga*	WWER Simulator: *Technology and Practical Example* *Mr Vyacheslav Zimin (MEPhI)*	Advanced Passive PWR Simulator *Technology and Practical Example* *Mr. Aitor Gutierrez Buruchaga (Tecnatom)*	**Adjourn of the Course**
16:45-17:30	Passive Safety Systems in WWERs *Mr Vyacheslav Zimin (MEPhI)*	Advanced Passive PWR Simulator: *Basic Principles of Normal Operation and Transients* *Mr. Aitor Gutierrez Buruchaga*	WWER Simulator: *Technology and Practical Example* *Mr Vyacheslav Zimin (MEPhI)*	WWER Simulator: *Technology and Practical Example* *Mr Vyacheslav Zimin (MEPhI)*	
17:30-18:00	Passive Safety Systems in PWRs *Mr. Aitor Gutierrez-Buruchaga (Tecnatom)*	**Groups Discussions on the training reports:** *Mr Vyacheslav Zimin (MEPhI) Mr. Aitor Gutierrez Buruchaga (Tecnatom) Ms. Tatjana Jevremovic (IAEA)*		**Review of the training reports** *Mr Vyacheslav Zimin (MEPhI) Mr. Aitor Gutierrez Buruchaga (Tecnatom) Ms. Tatjana Jevremovic (IAEA)*	

During the practical lessons, participants will do the tasks on the simulator and will be asked to fill out provided report forms with the tables and graphs. As a result at the end of the course they will have the reports, which can be used for their further practical exercises and training lessons.