

Partnership for 1st NPP Deployment: Regulatory Body Experience



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BAPETEN - Indonesia

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Introduction

- The situation
 - We were preparing the licensing of first NPP of FOAK (HTGR) (2014)
 - Application of site license (2015)
 - Site license issued (23 January 2017)
 - Next application of construction license
 - LWR based regulation
- Bapeten
 - Nuclear regulatory body, provide regulatory infrastructure: regulations, inspection, licensing
 - LWR based thinking
 - refer to IAEA documents
 - no experience with NPP licensing



Partnership

- The basic:

Partnership:

- an *agreement* between organizations, people, etc. to work together
- a kind of cooperation with *contractual relationship*
(Cambridge Dictionary)

- Cooperation based on agreement and contractual relationship in deployment and development of NPPs.



IRRS Mission

- Indonesia IRRS mission 2014 suggestion :
 - BAPETEN should consider further developing staff skills for safety assessment in all technical fields that are relevant for safety as regards the licensing process for nuclear power plants



Programme to support 1st NPP

- Infrastructure development:
 - Human Resource Development
 - Regulation development:
 - drafting new regulations
 - improving/revising current regulations
 - Improvement of licensing system:
 - completing standards and procedures for licensing
 - Improvement of inspection system
 - Capacity building for internal TSO



Capacity Building

- Looked for partners
- Consulted the IAEA through TC Department
- Found GRS - Germany
- MOU signed 29 July 2016
- Contractual agreement refer to TC Project forms, signed October 2016 between Bapeten Assessment Center and GRS
- Capacity building in safety review and assessment
- Computer codes





Implementation

- Sent 12 assignees for introductory courses for 2-3 months:
 - safety analysis
 - regulatory aspect of licensing
 - computer codes familiarization
- 1 assignee continued to PhD research in TU Dresden related to HTGR safety assessment and improvement of Athlet code
- Transfer of computer codes:
 - AC2 (ATHLET 3.1A, ATHLET-CD 3.1A, COCOSYS 2.4, ATLAS 5.1 and coupling)
 - TESPAS-ROD
 - SUSAS
 - PROST



Development of Regulations

- Supported by European Commission
- GRS was part of the development
- Documents prepared :
 - design requirements
 - design safety criteria
 - management system
 - radwaste management requirements
 - other supporting document for regulatory development and licensing improvement



Evaluation/Conclusion

- Very fruitfull cooperation even in the first phase of capacity building
- IAEA TC Department was very helpfull, technical officers as well. Thank you very much.
- It was not very well planned, could be improved during next phase
- However, capacity building programme was stopped due to NPP programme stop/delay
- Looking forward to cooperating in pre licensing review with CSNC Canada

Thank you

