SAS Generic Reactor Safety Review Project
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IAEA
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REPORT OF THE

IAEA Generic Review of ATMEA1 PWR Reactor Design

against IAEA Safety Standards

for

ATMEA

(Areva NP and Mitsubishi Heavy Industries)

10 December 2007 – 6 June 2008

Division of Nuclear Installation Safety

Generic Reactor Safety Review (GRSR)

5. CONCLUDING REMARKS

The ATMEA1 Conceptual Safety Features Review File provides valid approaches and stated intentions for meeting the IAEA safety standards, demonstrating adoption of the philosophy of the IAEA Fundamental Safety Principles. However, given the early stage of design development it is understood that limited insights can be gained at this point for certain in-depth assessment of safety issues.

Throughout the present review, the IAEA GRSR review team has relied on the knowledge that the design and engineering of the ATMEA1 reactor will be based on the proven reactor design concepts and experience of MHI and ANP, and its screening reflects this in statements and assumptions that existing gaps or safety issues not presented in the conceptual design documentation will be addressed during the basic design phase.

The review team noted that some safety requirements are very detailed for assessment at the conceptual design stage and will need to be considered later at the basic design stage. A subsequent safety review is therefore recommended when a complete safety case with further information on the results of safety analyses and on the functioning of advanced safety features is available.

In conclusion and according to the results of the review team safety assessment, the ATMEA1 Conceptual Design Document “Conceptual Safety Features Review File (CSFRF)” addresses the IAEA Fundamental Safety Principles and a majority of the Draft Safety Assessment for Facilities and Activities Requirements (DS348), and demonstrates, at the conceptual design level, a consistent safety approach in line with the more detailed NPP Design Safety Requirements (NS-R-1).