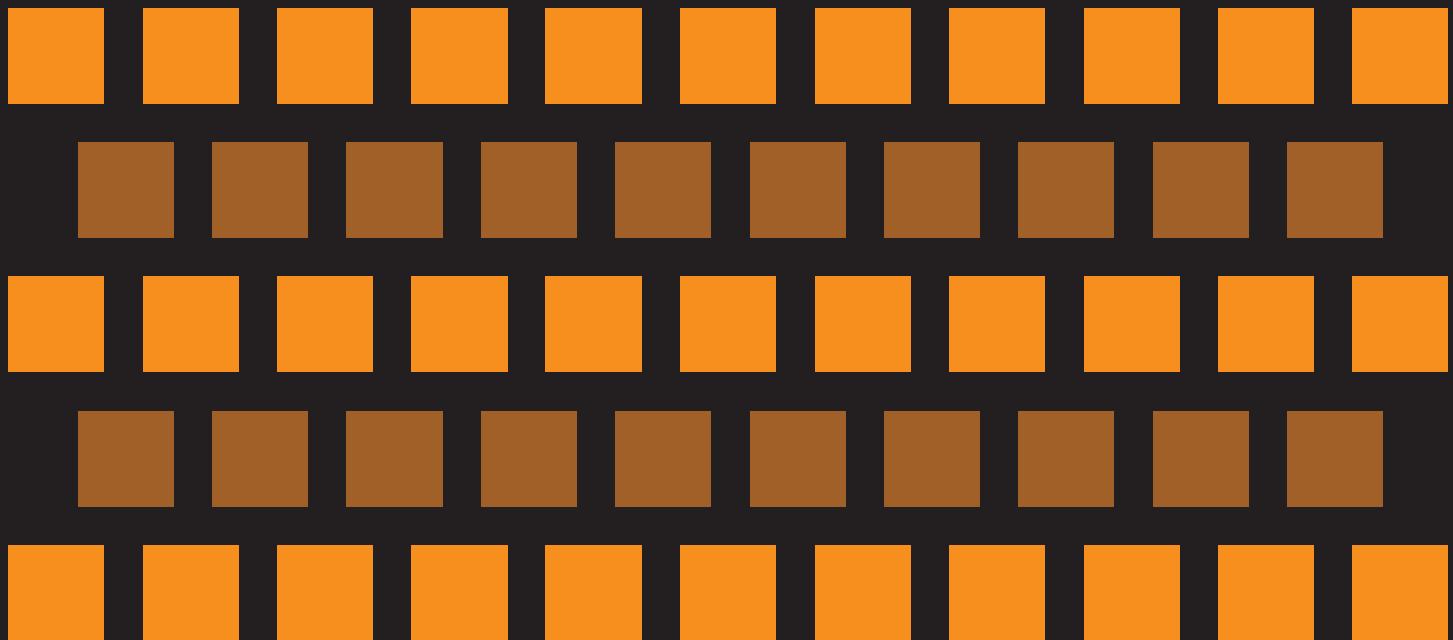


STP-NU-051-1

CODE COMPARISON REPORT

for

Class 1 Nuclear Power Plant Components



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Class 1 Nuclear Power Plant Components

Prepared for:
Multinational Design Evaluation Programme
Codes and Standards Working Group



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Summary of Changes

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The following changes have been made to the first revision of STP-NU-051.

<i>Rev. 1 Page</i>	<i>Location</i>	<i>Change</i>
<i>iv-xii</i>	Table of Contents	Updated to reflect changes
<i>xiv</i>	Abstract	Updated to reflect addition of NIKIET input
1-128	Report Body	General editorial and formatting corrections
34	Added Section 2.6	Added background information on NIKIET
46	Added Section 3.5	PNAE G-7 General Layout Comparison
129	Added Section 8	Added PNAE G-7 vs ASME BPVC III comparison
281	Appendix B2	Added JSME comparison for pumps, valves and piping
385	Appendix C2	Updated tables to correct formatting errors
454	Appendix E	Added PNAE G7 Detailed Comparison Tables

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FORWARD

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ABSTRACT

The Multinational Design Evaluation Programme (MDEP) Code Comparison Project was initiated in late 2006 in response to a request by the MDEP Codes and Standards Working Group (CSWG) formerly known as the Working Group on Component Manufacturing Oversight (WGCMO). The CSWG invited the organizations responsible for development of major nuclear component construction codes and standards, Standards Development Organizations (SDOs), to make presentations regarding the requirements of their respective codes and standards pertaining to light water cooled nuclear power plants along with comparisons between those respective codes and standards.

In an effort to facilitate consistent design and manufacturing processes for Nuclear Power Plant Class 1 components among the ten MDEP countries, the CSWG requested the various SDOs to develop a comparison of the requirements of their respective codes and standards and those of the others.

The SDOs from the USA, France, Japan, Korea, Canada and Russia (ASME, AFCEN, JSME, KEA, CSA, and NIKIET respectively) agreed to participate in this code comparison project and develop comparisons of the requirements for Class 1 vessels, piping, pumps, and valves.

The objective of this report is to identify and summarize the differences between major international nuclear codes and standards for Class 1 equipment; namely those of AFCEN (RCC-M), ASME (Section III), CSA (N-285), JSME (S NC1), KEA (KEPIC-MN) and NIKIET (PNAE-G7).

The reader is reminded that each of the codes is a set of consistent rules. The requirements of one area may be, and often are, dependent on the requirements in other sections. Since a line-by-line comparison has been done, it may be tempting to judge the entire code based on the differences between these individual points, but this may not lead to a correct conclusion. This exercise identifies the different requirements of the different codes. It was not within the scope of this report to provide conclusions relative to the full implementation of the various codes.