

Canadian Nuclear Safety Commission / Commission canadienne de sûreté nucléaire

Efforts to Converge Codes and Standards: MDEP's Role

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Outline

- Background
- Accomplishments
- Next Steps



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Background

Scope of CSWG



- Establish a data base of the similarities and differences in codes and standards used in design of pressure boundary components (based on inputs identified by the SDOs)
- Together with SDOs, examine potential paths for reconciliation of the code differences

Codes and Standards under consideration



- The pressure boundary component design codes developed by:
- ASME (United States)
 - AFCEN (France)
 - JSME (Japan)
 - KEA (Korea)
 - CSA (Canada)
 - the Russian Norms and Rules (Russian Federation)

Accomplishments

Code Comparison – Phase I Activities



- ASME code used as basis for comparison since most codes originate from ASME
- SDOs prepared comparison table of national codes for Class I - Vessels, against ASME Code, Section III requirements
- Comparison completed for French (RCCM), Japanese (JSME) and Korean (KEPIC) codes
- Canadian and Russian code comparisons in progress

Conclusions of Comparison Activities for Class I Pressure Vessels



- Full convergence (identical code requirements) of pressure boundary codes not feasible
- Harmonization (no substantial difference from safety perspective) of codes is feasible

Finalization of Phase I Activities




- Categorization of code differences:
 - those appropriate for convergence
 - those appropriate for harmonization
- Development work on the strategy and process to be used for harmonization
- Agreement to minimize further divergence of code requirements

Next Steps

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Code Comparison – Phase II Activities



- Comparison of code requirements for Class I piping, pumps and valves (by SDOs)
- Expected to be simpler than Phase I since general requirements for Class I vessels also applicable to Class I piping, pumps and valves
- Refinement of strategy and process for harmonization of differences in the Class I vessel codes

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Code Comparison – Longer Term



- Depends on success of Phase I and II reviews
- Appears that a comparison of Class II components has merit and can be completed relatively easily
- Benefits of Class III comparison not so clear at this point
- Ultimately, MDEP codes and standards harmonization effort to go beyond pressure boundary components

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