NEW NUCLEAR CONSTRUCTION COMPLIANCE OVERSIGHT FOR SMALL MODULAR REACTORS

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INTRODUCTION:

This poster highlights the steps taken by the CNSC for development of the Licence to Construct (LTC) Compliance Verification Plan (CVP), for BWRX-300 design at Darlington New Nuclear Project Unit 1 (DNNP-1).

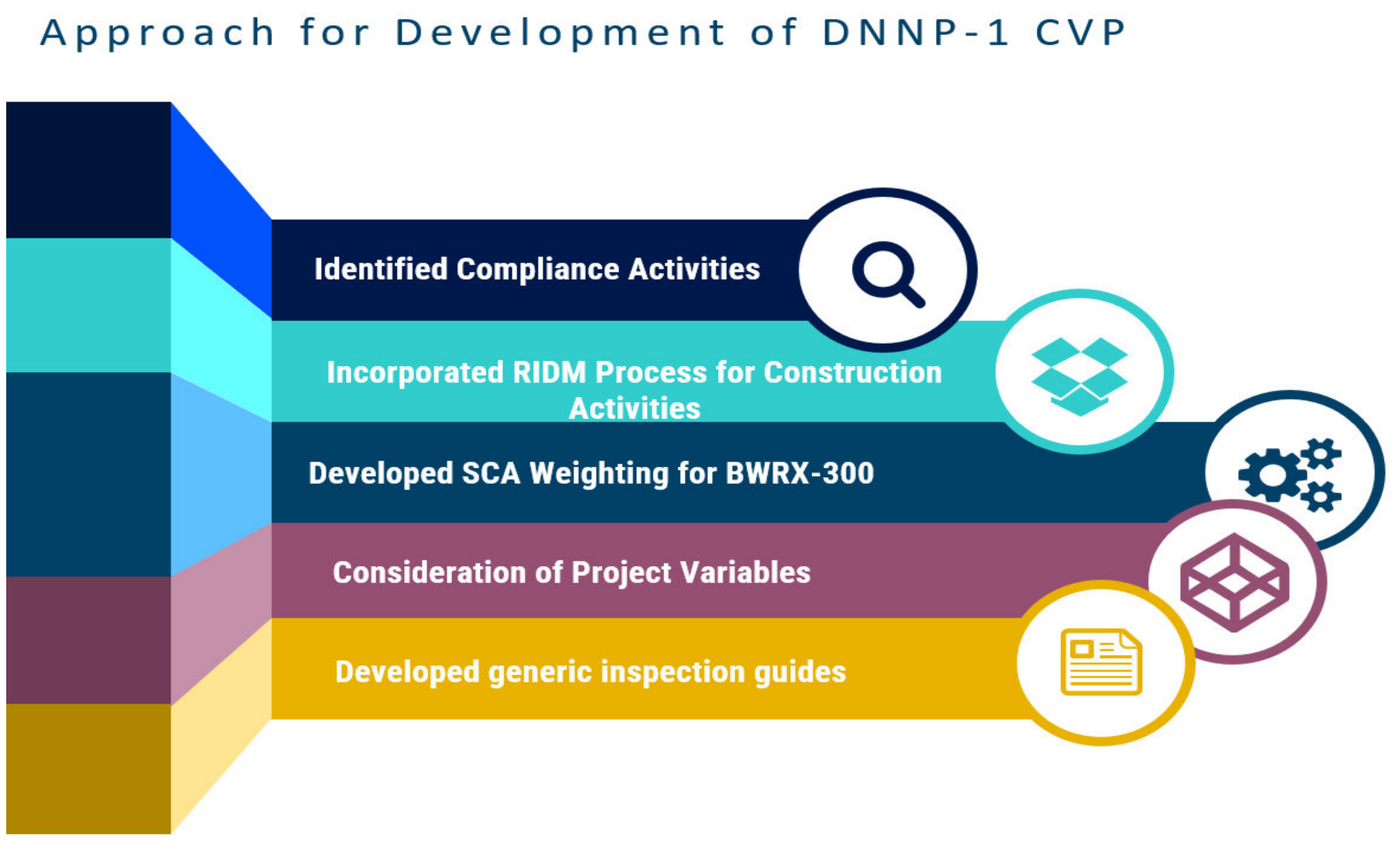
Strengths of the CVP include:

- Developed leveraging collaborate approach
- Flexible
- Agile
- Informed by Risk Informed Decision Making (RIDM) process
- Use of national and international Operating Experience through out the development

CONCLUSION:

CNSC staff successfully developed a Compliance Verification Plan (CVP) for Licence to Construct (LTC) for BWRX-300 design at Darlington New Nuclear Project Unit 1 (DNNP-1). Includes 140 Compliance verification activities covering 12 Safety Control Areas (SCAs).

Approach for Development of DNNP-1 CVP



Identified Compliance Activities
(Including generic and BWRX specific activities)

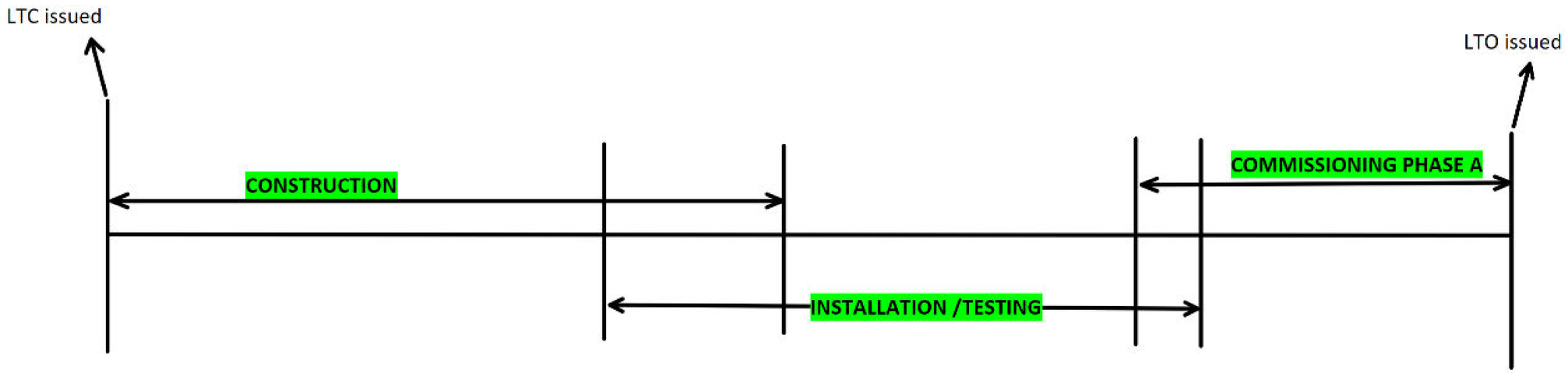
Incorporated RIDM Process for Construction Activities
Based on IAEA TECDOC 1980 and CNSC mandates

Developed SCA Weighting for BWRX-300
(Applicable to other SMR with minor modifications)

Consideration of Project Variables
- Number of Inspector/RPO FTEs
- Length of the Overall Construction Project
- SCA Weighting

Developed Generic Inspection Guides
Based on compliance activities identified

MAIN PHASES FOR THE CONSTRUCTION OF A NUCLEAR REACTOR FACILITY



FINAL COMPLIANCE VERIFICATION PLAN (CVP)

	Construction	Installation/Testing	Commissioning	Total for 4 years
Type II	13	11	6	30
Desktops	4	4	0	8
Fields	26	42	19	87
Compliance Assessments	9	4	2	15
Total Compliance activities	52	61	27	140