

REGDOC-2.3.1: Construction of Reactor Facilities

Comments submitted by Michael K. Yates, StarCore Nuclear, during first round of public consultation (April 24 to June 24, 2014)

	Section	Comment
1.	1.2	The words and phrases safety, safety-significant, construction safety, safety function, operations safety, nuclear safety, industrial safety, and important to safety are used throughout the document, and it is not clear whether the terms are interchangeable and have the same definition or whether the terms are defined differently, particularly with those terms involving nuclear safety. There are two kinds of safety covered - nuclear safety and construction or industrial safety. Recommend that fewer designations be used, added to the glossary and that the document be edited to incorporate them.
2.	7.1	Recommend that the construction sequencing requirements in the last two sentences be changed from "shall" to "should". It is the goal of every designer - constructor team to avoid instances where the initial work is adversely affected by later activities. Such activities impact the project by increasing the risk of errors, in lost schedule time and in higher costs, but they cannot always be avoided. A requirement to ensure that this will not happen will directly impact the construction schedule and cost as construction work will be delayed waiting for certainty of the design and of the final configuration of components.
3.	8.3.7	Recommend that an item "5. other on-site activities to facilitate construction" be added to the list. As written, the list could be read as excluding other viable construction work. Ultimately the constructor and licensee need the flexibility to decide where manufacturing, module assembly or other activities be performed, all in accordance with regulations and other requirements
4.	8.4	It is not clear to what the requirement that "Testing and verification of components important to safety shall be performed by a qualified independent party" applies. Recommend that clarifying language be added. There are several situations: a. Testing in a supplier's facility - this testing will done in accordance with the supplier's QA and quality control program, are critical to the supplier's code compliance and warranty obligations and may be witnessed by the licensee, CNSC and independent parties as desired. b. Construction testing - testing of such things as concrete strength and instrument calibration will be performed by independent parties. However, normal construction tests on the site such as meggering of electrical wiring, hydro tests of systems and loop checks of power and control cables are usually performed by the constructor under his QA and quality control program and witnessed as desired by the same parties as noted above. c. Commissioning testing - the commissioning group will perform tests of components and systems. This group will be under the direct control of the licensee. In the StarCore Nuclear model, the commissioning personnel will ultimately operate the reactor facility for StarCore Nuclear. Involving them directly in the testing is a critical feature in their training. Again, witnessing is available as desired.
5.	9.1	This section appears to require a formal turnover of SSCs and areas between construction disciplines. Such a turnover will impede the normal flow of construction work. There will be rules and procedures in place to handle such things as the release of an embedded plate to the piping contractor for his use in attaching pipe hangers and other like transfers. These and other types of releases will flow with the construction activities and will be documented as they occur. Once the civil work is nearly done, piping, electrical and other trades / subcontractors will be working in the same area. The General Contractor is required to control and coordinate these activities and will do so in an efficient manner.