

To: [Consultation \(CNSC/CCSN\)](#)
Subject: REGDOC-1.1.5, Licence Application Guide: Small Modular Reactor Facilities
Date: November-07-18 12:23:02 PM
Attachments: [Feedback on the comments on REGDOC-1.1.5.pdf](#)

I am pleased to provide the attached feedback on one comment on draft REGDOC-1.1.5.

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Dr. V.G. Snell

President
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- and -

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November 7, 2018

Canadian Nuclear Safety Commission,
P.O. Box 1046, Station B,
280 Slater Street,
Ottawa, ON, Canada K1P 5S9.

Re: **Feedback on Comment on REGDOC 1.1.5**

The purpose of this letter is to provide feedback on one comment on REGDOC 1.1.5.

The comment made by a number of organizations was as follows: “Industry suggests the CNSC should consider adopting the IAEA definition of SMR, which reads: “Small modular reactors are defined as advanced reactors that produce electricity of up to 300 MW(e) per module. These reactors have advanced engineered features, are deployable either as a single or multi-module plant, and are designed to be built in factories and shipped to utilities for installation as demand arises.””

I agree that a definition of SMRs is in order. However the IAEA definition has a number of issues:

1. It suggests there is some sort of threshold at 300MWe, just above which a reactor is no longer an SMR, but just below which it is. There is no physical basis for such a strict division.
2. It does not recognize that SMRs can be multipurpose – for example an SMR could be designed to produce just process heat, or heat and electricity, and would not easily fit into a definition based on electrical output.
3. It does not really recognize that a determining feature of modern SMRs is their reliance on such things as passive and/or inherent safety characteristics (it uses the word “advanced” which is not defined). For example a Generation III water-cooled reactor that happened to deliver just under 300MWe output and used modular construction could hardly be considered an SMR.

I suggest at this stage in the development of the SMR technology, the CNSC use a more flexible definition: for example, “a nuclear reactor significantly smaller in thermal output than current-generation power reactors, which incorporates more passive and/or inherent safety characteristics and uses modular construction and installation.”

Please note that these are my individual views and not necessarily the views of any clients of VGSSolutions.

Yours sincerely,

A handwritten signature in blue ink, appearing to read "V.G. Snell", is positioned below the "Yours sincerely," text.

(Dr.) Victor G. Snell