

Institut für Kern- und Energietechnik

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Bearbeiter/in: Kuhn/ho

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Einladung zum IKET-Kolloquium

<u>Zeit:</u> Dienstag, 14. Januar 2014, 15.00 Uhr

Ort: Kolloquiumsraum des IKET, Campus Nord, Bau 419, Raum 104

Referent: Prof. Janne Wallenius, Head of Reactor Physics Division, Kungliga

Tekniska Högskolan, Stockholm, Schweden

Titel: Commercial deployment of small Lead Fast Reactors in the

Canadian Arctic

Zusammenfassung:

Generation IV systems are currently developed to resolve issues related to sustainability of nuclear power. A major drawback is the high cost for licensing and building such reactors and associated fuel cycle facilities which makes it difficult even for major governments to demonstrate and deploy these systems. Obviously, market exposed industry is reluctant to invest money into projects that may provide return on investment only after several decades.

Hence, other means of introducing Generation IV reactor technology must be sought. One possible approach is to deploy very small reactors on off-grid markets, where the cost of electricity is very high, and alternatives are technologically unfeasible. These opportunities include arctic communities, mining industry and shipping industry.

In the current presentation, the development of small lead cooled fast reactors for near term commercial deployment in arctic communities will be motivated, and the relevant boundary conditions in terms of regulations and consumer requirements will be reviewed. A possible design adapted to the particular needs of Canadian regions is presented.

gez. T. Schulenberg

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