Extraordinary start-ups presented on Thorium MSR Symposium

April 17th, Auditorium Aula TU Delft

The Molten Salt Reactor symposium on April 17th is presenting three very special start-ups that are working on sustainable nuclear energy:



Leslie Dewan (TAP,US)

Leslie will explain how the molten salt reactor that she and her fellow students designed at MIT can convert all American nuclear waste into electric energy.

In December 2012, <u>Forbes</u> magazine selected Dewan for their "30 Under 30" in Energy.

In September 2013, <u>MIT Technology Review</u> recognized Dewan as one of "35 Innovators Under 35".

In December 2013, <u>TIME</u> magazine selected Dewan as one of "30 People Under 30 Changing the World".

Her Boston based startup company Trans Atomic Power (TAP) has received \$2,5 million from Peter Thiel, who also funded Facebook and LinkedIn as startups.



Kirk Sorensen (FLIBE Energy, US)

Kirk was the one who rediscovered the thorium molten salt reactor as an ideal form of sustainable energy in 2005, after it had been forgotten for 40 years. His NASA research for a lunar base power source resulted in this reactor, but it appeared to be ideal for the earth too!

His startup FLIBE Energy is designing a molten salt reactor working on thorium, which is safe, produces no long lasting nuclear waste, and can run continuously for 60 years. It produces very cheap electricity and follows daily load changes automatically.



Dave LeBlanc (Terrestrial energy, Ca)

Dave and his Canadian startup are closest to a market introduction of a molten salt reactor. They are working on a simplified version that works like a nuclear battery: it is produced in a factory, closed, and transported to the site where it will produce heat for app. 7 years, without requiring service or maintenance. After that period it is replaced by a new reactor.

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Special Guests



David Martin (Alvin Weinberg Foundation, UK) will explain the history of molten salt reactors and why the tragic mistake was made 50 years ago to prefer plutonium breeder reactors over the safe thorium molten salt reactors.



Rory O"Sullivan (Energy Process Developments UK)

will inform us about all the serious initiatives in the world that are developing molten salt reactors, including China, and explain the differences.



Myriam Tonelotto, thorium MSR documentary maker

Program: MOLTEN SALT REACTORS

April 17th; Auditorium Aula TU Delft

Chairman: Prof Dr Tim van der Hagen (DUT)

Technical part (morning):

9:30 Coffee

10:00 Welcome - Tim van der Hagen (DUT)

10:05 Jan Leen Kloosterman (DUT), The concepts and physics of MSR

10:30 Jilt Sietsma (DUT), Materials issues for MSR

10:50 **Rudy Konings** (EC/JRC/ITU), Challenges in fuel salt chemistry for MSR

11:10 Coffee

11:30 Kirk Sorensen (Flibe), Design and state of FLIBE reactor

12:10 **Dave Leblanc** (Terrestrial Energy), Design and state of TE reactor, TE/ORNL project

12:50 Myriam Tonelotto (ARTE television), thorium MSR documentary, talk and trailer

13:00 Lunch

General part (afternoon):

14:00 **David Martin** (AWF), The history of MSR and visionary approach of Alvin Weinberg

14:30 **Rory o'Sullivan** (EPD), Serious initiatives on MSR, and Chinese MSR policy

15:00 Leslie Dewan (TAP), The TAP reactor as nuclear waste burner, Design and state of TAP reactor

15:40 **Jorrit Swaneveld** (Hanzehogeschool), Barriers and Drivers for MSR technology

15:55 Jan Leen Kloosterman (DUT), The thorium molten salt reactor, TU Delft MSR projects

16:20 Closure - Tim van der Hagen (DUT)

16:25 Drinks