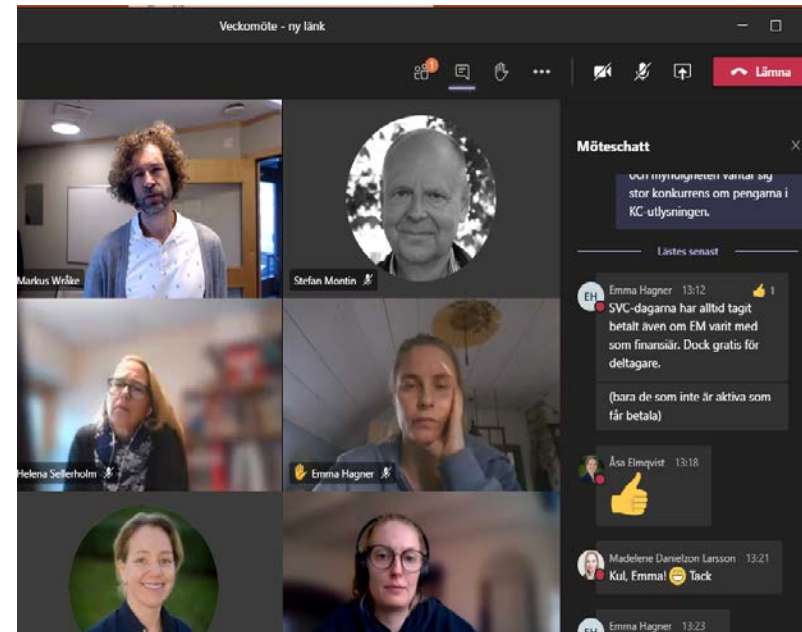


Program

- 08.30 Welcome, Monika Adsten Energiforsk, Tobias Törnström OKG
- 08.45 Vibrations caused by load follow, Paul Smeekes TVO and Tatiana Salnikova/Peter Forster Framatome
- 09.45 Break
- 10.00 Survey of vibration dampers, Åsa Collet and Jessica Fromell, Efterklang
- 10.30 Vibration elimination using viscodamper technology, Victor Kostarev, CVS
- 11.00 Lunch break
- 12.00 Measurement and analysis of pipe vibrations in turbine feedwater system, Thomas Probert, OKG
- 12.30 Vibration measurements on reactor containment during safety relief valve test (SRV), Kent Andersson and Tobias Törnström, OKG
- 13.00 Break
- 13.15 Elimination of cavitation induced vibrations by multi-stage orifice plates, Lena Skoglund/John Lorentzon Ringhals and Kristian Angele Vattenfall
- 13.45 Concluding remarks
- 14.00 End of seminar

Webinar structure

- Main Teams session
 - Presentations 20-25 minutes
 - Short questions 5-10 minutes
- Meet the author break-out sessions during breaks
 - Forum for in-depth discussion
 - Held during breaks
 - Links distributed by e-mail



Break-out sessions

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Energiforsk

- Facilitates and communicates R&D through collaborative actions
 - Energy industry
 - Authorities
 - Suppliers, universities, consultants etc
- Owned by trading- and transmission organizations for electricity, heat and gas
- Active in the entire field of energy
 - Activities defined from industry needs
 - Close collaboration with financiers
 - From PhD to applied projects
- More on www.energiforsk.se

Nuclear portfolio activities 2020



Concrete

 Strål
säkerhets
myndigheten
Swedish Radiation Safety Authority



GINO Grid/plant interact.

 Strål
säkerhets
myndigheten
Swedish Radiation Safety Authority



Strategic Monit.



Polymers

 Strål
säkerhets
myndigheten
Swedish Radiation Safety Authority



ENSRIC I&C

 Strål
säkerhets
myndigheten
Swedish Radiation Safety Authority



Digitalization in nuclear



Vibrations



BREDA RPV Embrittlement

Stakeholders:

VATTENFALL



**uni
per**

TVO

fortum



Vibrations in nuclear applications

- Vision: Reduce production losses caused by vibration related problems
- R&D and practical information exchange
- Time frame 2019-2021
- Program volume 1 MSEK/year
- Focus areas:
 - Digitalized vibration management
 - Technical challenges
 - Implementation and knowledge transfer
- Results
 - Reports can be downloaded from www.energiforsk.se
 - Seminars
 - Tools/guidelines



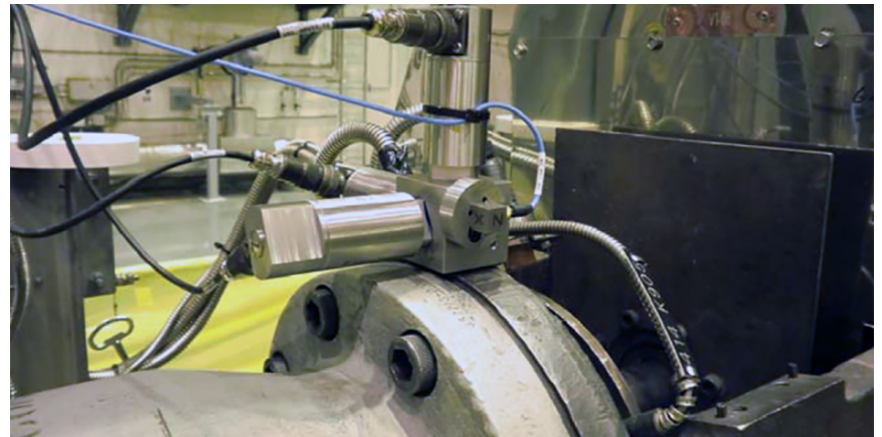
Ongoing activities

- Vibrations caused by load follow, Tatiana Salnikova, Framatome
- Excel DIAM into tablet/PC version, thesis worker Henri Sjöberg, Elomatic
- Report on standards for balancing, Anders Nöremark
- Lectures on turbines and generators, Prof. Rainer Nordmann



New activities under discussion

- Condition monitoring
- Guidelines for vibration measurements
 - How to measure
 - How not to measure



WHY a program on vibrations?

- Challenges
 - Knowledge among partners
 - Lack of requirements/standards
 - Load follow
 - Exchange of components

- The program facilitates
 - Knowledge increase
 - Knowledge transfer
 - Collaboration

