

# NORDROCS 2014

5<sup>th</sup> Joint Nordic Meeting  
on Remediation  
of Contaminated Sites  
15-18 September 2014

*crossing borders*

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Last  
Reminder!  
Registration  
Due August 29 2014

Registration at [www.nordrocs.org](http://www.nordrocs.org)

VENUE: Clarion Hotel Sign, Stockholm

## PROGRAM

The program is subject to possible changes

### Monday, September 15, 2014

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#### SHORT COURSES at Clarion Hotel Sign Stockholm

**10.00 – 12.00** **Short course B** – Reuse of material,  
Swedish Geotechnical Institute

**12.00 – 13.00** **Lunch**

**13.00 – 17.00** **Short course C** – Using the GeoProbe  
system for high resolution investigations at  
contaminated sites, NIRAS

**18.30 –** **Joint walk from the reception at Clarion Hotel Sign to Stockholm City Hall**

**19.00 –** **Welcome reception with buffet dinner at City Hall hosted by the City of Stockholm**

**After the reception at the City Hall we meet for an informal get-together at the Bar in Clarion Hotel Sign**

### Tuesday, September 16, 2014

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**09.00 – 10.00** **Registration and coffee**

**10.00 – 12.00** **OPENING SESSION Banquet hall, Hotel Clarion Sign**

*Malin Norin, NCC, Sweden, chair of Nätverket Renare Mark*

*Peter Harms-Ringdahl, Empirikon Konsult, Sweden, coordinator of the organizing committee of NORDROCS 2014*

*Chair: Jan Darpö, Professor, Department of Law, Uppsala University, Sweden*

*EU Legislation applying to Contaminated sites management and future needs - Key note speaker: Dominique Darmendrail - COMMON FORUM, General secretary, France*

Nordic EPAs, strategies and visions followed by discussion with the audience

**12.00 – 13.30** **Lunch, poster session and exhibition**

**13.30 – 15.30 SESSION A**

**Sustainability**

Chair: *Ingegerd Ask, Nyköping Municipality, Sweden*

Key note speaker: *Igor Linkow, Ph.D., US Army Engineer Research and Development Center, Adjunct Professor, Carnegie Mellon University, U.S.A*

Incorporating sustainability into assessment and remediation of contaminated sites in Finland – *Jussi Reinikainen, Finnish Environment Institute, Finland*

Energy efficient remediation - Analysis and Action Plan for implementation of solar energy at remediation units – *Trine Skov Jepsen, Orbicon A/S, Denmark*

Re-use of material in Stockholm Royal Seaport - *Anna Pramsten, City of Stockholm, and Helena Hellgren, NCC Construction, Sweden –*

Initiatives towards sustainable use of excavated soil in the Capital Region of Denmark, and the creation of the Soil Portal – *Jens Gregersen, Capital Region of Denmark and Kristian Kirkebjerg, Grontmij, Denmark*

**SESSION B**

**Investigation and risk assessment**

Chair: *Dominique Darmendrail - COMMON FORUM, General secretary, France*

Risk assessment of contaminated sites and diffuse sources to water resources - Key note speaker: *Poul Bjerg, Professor, Department of Environmental Engineering, Technical University of Denmark*

Assessment of soil-water partitioning of polycyclic aromatic compounds using passive samplers and leaching tests. – *Anja Enell, Swedish Geotechnical institute*

Comparison test on soil sampling containing volatile hydrocarbons - *Katarina Björklöf, Finnish Environment Institute and Miija Vepsäläinen, Vahanen Environment Oy, Finland*

Risk assessment of landfills in relation to surface water - *Sanne Skov Nielsen, Orbicon, Denmark*

Methodology for fast and reliable investigation and characterization of contaminated sites - *Jørgen Mølgaard Christensen, DGE Group A/S, Denmark*

**15.30 – 16.30 Coffe break, poster session and exhibition.**

**16.30 – 17.30 SESSION C**

**Protecting indoor air**

Chair: *Marja Tuomela, Ph.D., Research scientist, University of Helsinki, Finland*

Detecting intrusion pathways of contaminated soil gas to indoor air and describing remediation methods – *Børge Hvidberg, Central Denmark Region, Denmark*

Probabilistic risk assessment for six vapour intrusion algorithms - *Jeroen Provoost, Espoo, Independent Researcher, Finland*

Freon – a new contaminant in the field? - *Majbrith Langeland, Grontmij, Denmark*

**SESSION D**

**New Technologies - Thermal**

Chair: *Mads Terkelsen, Research and Development Manager, M.Sc. (geology), Capital Region of Denmark, Copenhagen*

In-Situ Thermal Treatment of Fractured Rock - *Gorm Heron, TerraTherm, Denmark*

Indoor thermal remediation in an old industrial area in the Capital Region of Denmark - *Katerina Hantzi, Capital Region of Denmark and Pernille Kjaersgaard, Orbicon, Denmark*

Thermal desorption - pilot testing in Machelen – *Beel Pieter, JV Jan De Nul-Envisan, Belgium*

**19.00 – 24.00 Dinner, Vasa museum 19:00 (busses leaves 18:30)**

# Wednesday, September 17, 2014

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## 08.30 – 10.00 SESSION E

### New technologies - inorganic compounds

Chair: *Maria Sundesten, Golder Construction, Sweden*

Recent innovation in soil mix technology for land remediation and project SMiRT as a case study - Key note speaker: *Abir Al-Tabbaa, Ph.D., Reader in Geotechnical Engineering, Department of Engineering, Cambridge University, England*

In situ remediation and management of contaminated sites in Antarctica - *Tom Statham, The University of Melbourne, Australia*

Stabilization of metals in contaminated soils with zero-valent iron - evaluation of long term effects - *Charlotta Tiberg, Swedish University of Agricultural Sciences/ Swedish Geotechnical Institute, Sweden*

Failure of a Sediment Cap – a Case Study - *Gøril Aasen Slinde, Norwegian Geotechnical Institute, Norway*

## SESSION F

### Emerging contaminants

Chair: *Erika Winqvist, M.Sc. (Tech.), MTT Agrifood Research Finland*

To be or not to be toxic: chemicals in aquatic ecosystems - Key note Speaker: *Ketil Hylland, Professor, Toxicology, Department of Biosciences, University of Oslo, Norway*

Search and you will find – emerging substances in contaminated land management - *Patrick A. W. van Hees, Eurofins Environment Testing Sweden*

Interactions of silver nanoparticles with sewage-sludge treated soils - *Aidin Geranmayeh, URS Nordic Sweden*

Survey and remediation of TNT in groundwater, sediment and Wastewater – *Emma Nehrenheim, Mälardalen University, Sweden*

## 10.00 – 10.30 Coffee break, posters and exhibition

## 10.30 – 12.00 SESSION G

### New Technologies - organic

Chair: *Maria Sundesten, Golder Construction, Sweden*

Full-scale electrokinetic enhanced bioremediation (EK-BIO) of PCE DNAPL in clay till - *Evan Cox, Geosyntec, Canada*

Full scale in situ bioremediation of triacetin and polar organics - *Charlotte Riis, Niras, Denmark*

In situ alkaline hydrolysis (ISAH) of pesticides – a large scale demonstration project – *Morten Bondgaard, Central Denmark Region, Denmark*

Bioremediation of petroleum hydrocarbon contaminated soil: a case study in Thailand - *Associate Professor Dr. Prayad Pokethitiyook, Mahidol University, Bangkok, Thailand*

## SESSION H

### Contaminated sediments

Chair: *Jens Laugesen, Ph.D., Chief Specialist, DNV GL, Norway*

Contaminated sediments in the Baltic Sea – what can microbes do? - Key note speaker: *Kirsten Jørgensen, Ph.D., Marine Research Center, Finnish Environment Institute, Finland*

Pilot testing of freeze dredging, capping and timber removal to support remediation of mercury contaminated sediments - *Henrik Eriksson, Golder Associates, Sweden*

Trondheim harbor, Cleaner harbour – planning of remedial actions - *Marianne Kvennås, Norwegian Geotechnical Institute, Norway*

Lessons learned from nearly three decades of sediment remediation in the USA - *Rebecca Gardner, Anchor QEA AS, Norway*

**12.00 – 13.30 Lunch, poster session and exhibition**

**13.30 – 14.40 SESSION I**

**Difficult Matrixes**

Chair: *Mette Broholm, Associate Professor, Department of Environmental Engineering, Technical University of Denmark*

Strong natural attenuation of chlorinated solvent plumes in fractured sedimentary rock aquifers - Key note speaker: *Beth Parker, Ph.D., Professor and NSERC Industrial Research Chair, University of Guelph, School of Engineering, Canada*

Matrix diffusion in groundwater aquifers - *Henrik E. Steffensen, Niras, Denmark*

Field investigations of DNAPL contaminated fractured rock – *Rune Nordqvist, Geosigma, Sweden*

**SESSION J**

**Mining**

Chair: *Morten Jartun, Ph.D., Environmental hydrogeologist, Oslo Lufthavn, Norway*

Mining and metals for a sustainable society – A contradiction? - Key note speaker: *Henning Holmström, Ph.D., Managing Director Tasman Metals AB, Sweden*

Approaches for reducing liabilities in tailings management - *Stany Pensaert, DEC NV, Belgium*

Mining in Norway – advantages and disadvantages for land and sea disposal of mine tailings – *Jens Laugesen, DNV GL, Norway*

**14.40 – 15.10 Coffee break**

**15.10 – 16.45 CLOSING SESSION**

**Strategies and regulations**

Chair: *Klas Köhler, County Board, Sweden*

Key Issues concerning Liability for Contaminated Land - Key note speaker: *Jan Darpö, Professor, Department of Law, Uppsala University, Sweden*

Development in public procurement of investigation strategy - *Anja Melvej, Central Denmark Region*

Large investigation of state funded remediations gives data base for future strategies – *Helena Fürst, WSP, Sweden*

Challenges in regulating dispersals of PFAS from contaminated ground and hazardous waste treatment plants in Norway - *Vanja Alling, Norwegian Environment Agency, Denmark*

**Informal get together in the bar of Clarion sign in the evening**

## Thursday, September 18, 2014

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**09.00 – 13.30 Excursion to Stockholm Royal Seaport**

Stockholm Royal Seaport is a large development area in the eastern part of Stockholm city. The area is used and has been used for industrial purposes such as gas production, oil storage and harbour for more than a decade.

The remediation is taking place in an environment with high cultural value where all existing buildings will remain and be developed for other use e.g. restaurants, scenes and museum.

The excursion ends with a lunch in the beautiful Botanical Garden of Stockholm.

## INTERESTED IN SPONSORSHIPS?

Sponsorships are most welcome – min. 1.200 € (10.500 SEK). Sponsor logos will be presented on the official website and on all printed material, program and the conference compendium as well as on the main screen during breaks. More information about sponsorships can be found on the website [www.nordrocs.org](http://www.nordrocs.org).

Please contact conference secretariat at [info@renaremark.se](mailto:info@renaremark.se), tel +46 708 473 475.

**More information:** [www.nordrocs.org](http://www.nordrocs.org)

NORDROCS 2014 is arranged by:

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Photo of Stockholm City Hall by: Yanan Li

We look forward to exciting days in Stockholm!