

10 - 11 December 2012

METRO SEMINAR

Final seminar with presentation of results

Rosersberg, Stockholm, Sweden



METRO PROJECT
A joint safety
in infrastructure
project



PHOTO: Per Rohlén

METRO PROJECT

a joint safety in infrastructure project

METRO is a three year Swedish research project about infrastructure protection. The focus of the project is on the protection of underground rail mass transport systems, such as tunnels and subway stations. Both fire and explosion hazards are studied, and aspects such as evacuation, rescue operations and smoke control are important parts of the project.

As part of the project a series of small-scale, medium-scale and full-scale experiments have been performed. The main goal with the full scale tests was to develop design fires for underground rail mass transport systems. In the full-scale fire experiments, commuter trains provided by Stockholm Public Transport (SL) were used. The experiments resulted in heat release rate curves for varying conditions (materials, ventilation, etc). These results, together with the developed mathematical models for gas temperatures, radiation, smoke spread, toxicity and extraordinary strain on construction, will be valuable tools when designing tunnels and planning rescue operations.



A total of nine partners take part in the project. METRO is funded by five organizations, namely Stockholm Public Transport (SL), Swedish Civil Contingencies Agency (MSB), the Swedish Transport Administration, the Swedish Fortifications Agency, and the Swedish Fire Research Board.

The final seminar held at Rosersberg, Stockholm, Sweden will present the results from the total project and include results from the full scale tests regarding fire, explosion, evacuation and fire and rescue operations.

You are invited to participate in this METRO Seminar the 10th-11th of December 2012 at Rosersberg, Stockholm, Sweden.

 www.metroproject.se



SEMINAR PROGRAM

MONDAY – 10 DECEMBER 2012

- 12.00 Registration and coffee
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- 13.00 Welcome! Opening speech – Professor Haukur Ingason
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- 13.10 Key note speaker – Ingerid Eknes, Oslo Metro
Safety and Security in Underground Mass Transport Systems
-
- 13.40 The METRO project – from idea to final report – Mia Kumm, Mälardalen University
-
- 14.00 **WP1 – Design Fires**
Carried Fire Load – Mia Kumm
Model Scale Tests – Anders Lönnermark
Ignition Tests – Alexander Claesson
-
- 15.00 Coffee Break
-
- 15.30 Full Scale Fire Tests, Arvika 2011 – Anders Lönnermark
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- 16.30 **WP2 – Evacuation**
Evacuation from metro cars – Karl Fridolf
Experiments in a smoke filled tunnel – Daniel Nilsson
Evacuation experiment in Stockholm Metro – Karl Fridolf
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- 17.30 Summary of Day 1 – Discussion under lead of the METRO Project Leader –
Professor Haukur Ingason
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- 17.50 End of Day 1
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- 19.00 3-course dinner at the Tre Rosor Restaurant
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TUESDAY – 11 DECEMBER 2012

- 08.30 Key Note Speaker – Gary English, Seattle Fire Department
Implementation of the METRO results in Legislation and Fire Tactics
-
- 09.00 **WP3 – Integrated Fire Control** – Rolf Åkerstedt
-
- 09.20 **WP4 – Smoke Control**
Model Scale Tests – Torkel Dittmer
Recommendations for Single Exit Stations – Hans Nyman
-
- 10.00 Coffee Break
-
- 10.30 **WP5 – Extraordinary Strain on Constructions**
Overview of Metro Terror attacks – Lindy Newlove-Eriksson
Model scale tests – Rickard Forsén
Full Scale Explosion Tests – Gero Meyer
Correlations between Tests and Calculations – Anders Bryntse
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- 11.30 **WP6 – Rescue Operations**
BA-rescue Moving Speed - Mia Kumm
IR-imaging in Tunnels - Mia Kumm
Experiences from Full Scale Fire Tests - Anders Palm
Rescue Tactics in Metro Tunnels – Anders Palm
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- 12.30 Lunch
-
- 13.30 WP1-6 Recommendations from the METRO project
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- 14.45 Coffee break
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- 15.15 How will the METRO project influence future mass-transport design
Professor Arnold Dix
-
- 16.00 Closing Remarks
-
- 16.15 End of Day 2
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HOW TO REGISTER

Registrations should be made online by filling in the registration form at www.metroproject.se. The registration is valid when the card payment in connection to the registration has gone through.

! Registration: 5000 SEK (4000 SEK plus VAT)

! Banquet dinner 10 December 2012: Included

After your registration has been processed, you will receive a confirmation e-mail.

Cancellation of registration will be accepted until 1 November 2012, and the total amount will be refunded less a cancellation fee of €35 plus VAT. We regret that no refund can be made for cancellations received after 1 November 2012. If you cannot attend, it is possible to transfer the registration to another member in your organization, which we in that case need to be informed of prior to the event.

WHERE TO STAY

All reservations are made individually directly to the hotels.

The METRO project has reserved rooms at the following hotels:

H HOTEL TRE ROSOR www.treorosor.se **FULLY BOOKED**

Per night: Single bedroom 760 SEK incl VAT, Double room 900 SEK incl VAT

H PARK INN BY RADISSON STOCKHOLM-ARLANDA www.parkinn.se/hotell-arlanda

Contact meha.patel@rezidorparkinn.com

Per night: Single bedroom 795 SEK incl VAT, Double bedroom 895 SEK incl VAT

H QUALITY AIRPORT HOTEL ARLANDA www.qualityarlandastad.com

Contact +46 (0)8 595 111 10

Per night: Single bedroom 994 SEK incl VAT, Double bedroom 1157 SEK incl VAT

H ROSERSBERGS SLOTTSHOTELL www.rosersbergsslott.se

Contact +46 (0)8-122 020 00

Per night: Single bedroom 1495 SEK incl VAT, Double bedroom 1990 SEK incl VAT

Please refer to "METRO seminar" when you contact the hotel.

HOW TO GET THERE

The journey from Arlanda Airport to the seminar venue Roserberg takes approximately 10 minutes. To get to the venue, keep right when you leave the airport and drive on the Cross Roads (Tvärvägen) of the E4 to Rosersberg, turn right at the roundabout to the road 273, drive approximately 800 meters, turn left immediately after Radisson SAS Hotel, continue approximately 7 km the T-junction Norrsundavägen, turn left and then immediately right on to Slottsvägen, continue 2,5 km, and then turn left.

i Coordinates to Rosersberg: Lat: N 59 ° 36.727', Long: E 017 ° 51.445'

MORE INFORMATION

For any queries, changes or cancellations please contact Karin Hellman at karin.hellman@mdh.se.

