

November 16, 2009

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 PAYMENT

Invoice to be sent to

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I enclose a cheque for € 390


Corresponding to the registration fee.
Cheque to be made out to "l'Agent Comptable du LNE"

TO BE RETURN TO

Laboratoire national de métrologie et d'essais
Centre de Formation
1, rue Gaston Boissier
75724 PARIS CEDEX 15

OR BY FAX

+33 1 40 43 37 37

 Seminar reference

Composite materials and fire safety for transport – JT 905 – November 16, 2009

 Location

Laboratoire national de métrologie et d'essais

1, rue Gaston Boissier – 75015 Paris – France – Tel. +33 1 40 43 37 00

 Registration fee

Full day: € 390

This fee covers all presentations, seminar materials, lunch and refreshments.

 Registration

As the number of places is limited, we would advise you to **register immediatly**. You can do this **by fax** (+33 1 40 43 37 37) or **on our website** (www.lne.fr, section *Formation*). You will be registered for the symposium as soon as we receive your completed registration form and payment. The form and payment should be sent to:

Laboratoire national de métrologie et d'essais
Centre de Formation
1, rue Gaston Boissier – 75724 PARIS CEDEX 15

Please make out your cheque to "l'Agent Compable du LNE". Alternatively, a bank transfer may be made to LNE's account:

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International Bank Account Number (IBAN)

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On receipt of your registration and payment, we will send you notification and an access map.

If a registered participant is unable to attend, he or she may be replaced by a colleague up to the day before the seminar. Please inform us by fax (+33 1 40 43 37 37).

Contact

E-mail: jt@lne.fr

Tel.: +33 1 40 43 37 35 / Fax: +33 1 40 43 37 37


 november 16
2009
 

 COMPOSITES MATERIALS
AND FIRE SAFETY
FOR TRANSPORT


For the intention to:

Technical officers,
Research and development:

- Composites material manufacturers
- Railway and ship transport manufacturers
- Suppliers and assemblers

With the participation of:

- Centre d'expertise des structures et matériaux navals
- Direction des Chantiers Navals - DCNS
- École des Mines d'Alès
- Composite material manufacturers



An increasing number of users adopt the composite materials for railway and ship transport due to their characteristics combining weight saving, mechanical strength and resistance to corrosion.

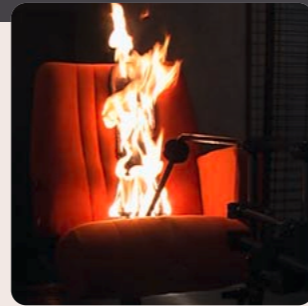
These materials are increasingly used for ship and railway construction. However, they must meet numerous requirements, in particular the fire safety.

This seminar will help you to develop your products by informing you on:

- the regulation requirements relating to fire safety for transport,
- the means to optimize the fire behaviour of your products fire with Safety Engineering tools,
- the potential technical choices.

Topics covered:

- What is the regulation background and what are the fire safety standards for transport?
- How the composite materials allow meeting the safety requirements relating to transport?
- What are the orientations to meet these safety requirements?



09 : 15

Participants are welcomed

09 : 30

Opening of the seminar and presentation of the programme

- Francis WELVART, Expertise and Technical Assistance, LNE

09 : 45

Fire safety regulations and standards for railway (prescriptive design)

- Alain SAINRAT, Fire behaviour Expert, LNE

10 : 30

Fire safety engineering as substitute to prescriptive design: methodology

- Eric GUILLAUME, Head of Research and Studies and Fire Safety Engineering, LNE

11 : 00

Break

11 : 15

Application examples for FSE in shipbuilding

– Presentation of the MPO8 project relating to the fire performance of composites for shipbuilding

- Joëlle GUTIERREZ, Organic material Expert and vulnerability, DCNS
- Simulation of fire behaviour of composites carried out during this project
- Damien MARQUIS, PhD student, LNE

12 : 00

Questions and answers

12 : 30

Lunch

14 : 00

Application examples of FSE to surface transports (railway, ship): European study "TRANSFEU"

Development of a European methodology of FSE: consequences on the development of composites

- Alain SAINRAT, Fire behaviour Expert, LNE

14 : 45

Questions and answers

15 : 00

Break

15 : 15

Composite applications and technical solutions allowing meeting the fire safety requirements

Reaction to fire and flame retardant systems for thermosetting matrix composites

- Pr José-Marie LOPEZ CUESTA, Ecole des Mines d'Alès, Pôle Polymères Avancés

16 : 00

Reporting of a manufacturer using composites for transport

17 : 30

Conclusion

- Alain SAINRAT, Fire behaviour Expert, LNE

