

Task Group 1 – Fatigue

Guy Baylac

EPERC TG 1 Chairman

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Minutes of the 4th web-meeting of TG 1

Tuesday, May 10th, 2022, 14:00 – 18:00 Paris time

1 Chairman Welcome of Participants

TG1 - 10.05.2022

PARTICIPANT	E-mail address	Member	Country
Yves Simonet	yves.simonet_ys@outlook.fr	YES	F
Guy Baylac	guy.baylac114@gmail.com	YES	F
Claude Faidy	claude.faidy@gmail.com	YES	F
Andrea Burberi	admin@Ener782.onmicrosoft.com	YES	I Enerconsulting
Pietro Gabbiadini	gabbiadini@sant-ambrogio.it	YES	I Sant' Ambrogio
Fernando Lidonnici	fernando.lidonnici@fastwebnet.it	YES	I
Philippe Rohart	philippe.rohart@cetim.fr	NO	F CETIM
Jader Furtado	Jader.Furtado@airliquide.com	YES	F
Corrado Delle Site	c.dellesite@inail.it	YES	I INAIL

2 Remarks on previous meeting minutes

No remarks.

3 Remember EPERC strategic Plan

The strategic Plan was remembered by the Chairman.

- Comparison of International Codes & Standard
- Identification of Gaps & Needs with Code Organization and Industry
- Developments of R&D programs associated to dedicated Road Map developed by topics at the TG level
- Development of Recommended Practices with all the rules validation
- Performance of Benchmarks on practical cases
- Code Case Proposal
- Knowledge transfer through: Regular Thematic Technical Seminars, International Conference, Training courses, Master Classes, Summer School, Reports and Documentation
- Communication and Registration to different EPERC Activities through: www.eperc-aisbl.eu



4 Status of some EPERC TG 1 Tasks

WP 1: Comparison of last Code editions Fatigue Design Rules

During the meeting the only point discussed was a detailed analysis of Claude FAIDY of Fatigue design rules contained in Clause 18 of EN 13445-3 (Attachment 1).

- First edition (Rev 1) of the proposed framework for Codes comparison on "Fatigue Design Rules", complement will be prepared for next meeting in Rev 2...
 - based on EN 13445 2021 issue 1 and EN 13445 2021: pr A1:2022
 - the format is slightly complex.
 - inside the paper you can catch a lot of "Question mark"
 - many original hypotheses where validation will be needed.
 - all these ideas of Structural Stress + stress concentration factors + thermal peak stresses are unclear...
 - formal writing in the Code that Tresca and von Mises can be used.
 - for example, the unique type of reference procedure for Fatigue curves tests, outside of all the international standards, is a question...
- many other comparisons will be done in the future of our EPERC TG Fatigue
- Claude FAIDY will do the same work for ASME VIII-Div. 2 and RCC-M, (*but it's a lot of work*), with the same frame (defined by "Rev 1 Table of content"....)
- We need volunteers to do similar work with all the lists of Codes in our Technical program, in particular for Fatigue of Piping Systems or Boilers...

6 Acknowledgment

Thanks to Claude FAIDY for his contribution to this meeting.

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