Task Group 1 – Fatigue

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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

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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Fatigue Design Rules – EPERC TG 1
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