

Short report of the TG54 meeting – October 19th, 2021

The most important topics under discussion were the **new edition of the European Pressure Vessel standard EN 13445** and the “**new way of working**” to be followed in the future update of the standard.

The 2021 edition of EN13445 was in fact scheduled for 2019, five years after the previous 2014 edition. However due to the large number of work items being processed, and due to the numerous comments from the Commission consultant (**HAS Consultant**), which often concerned also the previous editions of the standard, **a series of delays accumulated so that the edition scheduled for 2019 was instead published only in April 2021.**

The delay of the 2021 edition **also delayed the Formal Vote on a whole series of Amendments** (especially relating to part 3 - Design and Calculation) already approved in the Public Enquiry, and with all the comments already processed. For some of these Amendments the works had started at least 4 years ago. I mention among others:

- Revision of chapter 18 on **Fatigue Analysis**
- Revision of chapter 9 on **Reinforcement of Openings**
- Revision of chapter 16 on **Vessel Supports**
- Revision of Annex C on **Linear Elastic Analysis**
- Revision of Annex A on **Weld Details**

In the last meeting of TC54 it was decided to **consolidate all these amendments into a single document**, bringing them all together to the Formal Vote, which however means that, in the event of approval, **these important regulatory changes will only come to light with the next "issue" of the 2021 edition**, therefore expected only in 2022.

In this way, the “**new way of working**” is inaugurated, specifically envisaged for **EN 13445 on Pressure Vessels and for EN13480 on Piping**, based on the following principles:

- A **new edition** of the standard **every 5 years**
- A **new "issue"** of the standard **every year**
- Only **one Amendment each year for each part of the standard**, to be launched together in a single Public Enquiry

The following is the **detailed program of work** for the various Working Groups:

- **WG53, SG Design Criteria: Annexes B and C** must be completed (criteria for the consideration of collapse modes such as elastic equilibrium instability and creep)
- **WG53, SG Design Criteria: clauses 17 and 18 on Fatigue** (coordination of work with our Task Group 1) will have to be further developed: this may possibly require the proposal for a research project. It should be noted that the convenor of the SG Design Criteria (**Mr. Guy Baylac**) is also convenor of our TG1.

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- **WG53 (design):** modification of **Annex G** on the alternative method for the calculation of flanged assemblies, to bring it in line with EN 1591.1 and to take into account particular assemblies (flange / tubesheet) not yet foreseen (any proposals may already be discussed in our Task Group 3 - next meeting in January 2022).
- **WG54 (construction):** will have to repeat the formal vote on an Amendment already approved in the Public Enquiry (**temperature of the mechanical tests of a weld test coupon for a device operating in the creep range**) due to comments from the HAS Consultant following the Formal Vote.
- **WG55 (testing):** the **formal vote on the new EN 764-7** is blocked by a comment from the HAS consultant, which must therefore be resolved as soon as possible (note that the contract with the HAS consultants has already been closed and has not yet been renewed, so it is not yet possible to get them to attend meetings).
- **WG 7 (titanium alloys):** for the **new part 11** only the Formal Vote is missing.
- **WG 8 (copper alloys):** for the **new part 12** the review of the comments of the Public Enquiry has yet to be completed.
- **WG 9 (EN 286 1-4 - simple pressure vessels):** the examination of the comments on the 4 parts of the **EN 286** standard (already approved in the Public Enquiry) has yet to be completed.
- **WG 11 (additive manufacturing):** the works are still in progress.