



PROPOSAL FOR A EUROPEAN STANDARD ON PRESSURE EQUIPMENT RECERTIFICATION

Pressure equipment recertification is one of the most important issue of pressurized plants. With an approximate estimation, we may say that 1/3 of new pressure equipment installations is using re-certificated pressure equipment. This is the reason why there is a strong need for the standardization in this field of application, in all areas where the normal pressure vessel standards do not contain specific prescriptions, and namely:

1. Calculations, what code to use, original code, harmonized standards, member state code with PED amendments, additional loads (e.g. wind, earthquake, etc.);
2. Welding procedure, the component is already welded, welding procedures are qualified according to the national standard, there are various editions, possible comparison with harmonized standards, case when the original WPS and PQR are not available, additional requirements when appropriate;
3. Welders, original qualification requirements and current requirements, additional requirements when appropriate (currently only welders qualified by NB according to the harmonized standards);
4. Requirements for materials, original material testing certificates, additional tests, PMA, new material issues, etc.; material traceability;
5. Manufacturing rules (heat treatments, impact tests, geometrical limitations etc.);
6. NDEs after life assessments;
7. Final pressure test, requirements from TG2 (alternative to hydro test).

The modification interventions require the submission of the equipment to be modified to a conformity assessment procedure in accordance with Directive 2014/68/UE (97/23/CE – PED), whatever its original construction code was. This procedure requires the re-assessment of the entire pressure equipment according to Directive 2014/68/UE (97/23/EC – PED).

Certification of used pressure equipment is something different from the normal certification. The requirement in PED are the same, but the re-used PE are not the same as the new ones. The main problems are:

- Ex-service damage and defects;
- Incidents and accidents during previous use of the pressure equipment;
- Manufacturing code, different from the codes for PED;
- Missing manufacturing files.

The new working conditions can be completely different from the previous one, resulting in an increased risk. Furthermore, a detailed NDE program should be issued by the manufacturer appointed for the conformity assessment of the used PE. New drawings and calculations should be provided, taking into account the results of the NDE and other relevant issues (residual thickness, etc.).

We think therefore that also a European standard published by CEN and prepared by the joint effort of European manufacturers, users, engineering companies and notified bodies, considering the specific needs of the European industry, of the European legislation and the European standardization system would deserve the Commission's attention.

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