What is Certification

What is the setup of a certification scheme?

A driving license for a car is equivalent to a DNV certification. In fact, the rules valid for the DNV certification are similar to those for a driving license, see Table 1 for a comparison.

The certification scheme regarding the GRP bonders, - spool builders - pipe fitters, supervisors, and inspectors is operated by an independent and accredited certification body. The certification body shall be acceptable to the principal and authority having jurisdiction in the country of the intended application.

The independent and accredited certification body shall be independent of the organizations that carry out the training. The training courses shall be



 $conducted \ by \ suitably \ competent \ or ganizations.$

The certification scheme must be accepted, developed, and maintained through structured input and commitment of both end users and manufacturers.

An independent examination committee shall validate the exams and examination methods, The examination committee shall consist of, but not be limited to: experts in the field of installing GRP piping systems, examination experts, and GRP project leaders. This committee must be active and ongoing.

The certification body shall have the authority to issue, suspend and revoke the certificates and shall maintain a public register of all certificates and their status.

The final certificate shall clearly state the certified pressure ratings, diameters, resin type, joint types and manufacturer('s) of the GRP piping systems.

The principal, contractor, engineering company, end user or GRP manufacturer shall take care that only qualified and certified GRP bonders, - spool builders - pipe fitters, supervisors and inspectors are assembling GRP pipes and fittings (assembling=jointing, laminating, etc).

It is "not permitted" to start installation before the GRP bonders, - spool builders - pipe fitters, supervisors and inspectors are trained and certified.

The DNV certification scheme fulfills all the abovementioned conditions.



Table 1. Comparison of Driving license and DNV certificate.

ltem	Driving licence	DNV certificate
1. Defined competence profile	Yes	Yes by the market
2. Defined examination requirements	Yes	Yes by experts in the field of GRP
3. Adjustments of examination requirements in time	Yes	Yes
4. Training	Yes/ driving schools	Yes/trainers (independent or manufacturers)
5. The theoretical and practical part	Yes	Yes
6. More than 1 competence profile	Yes (car, truck, heavy goods vehicles)	Yes (GRP bonder/jointer, spoolbuilder, pipefitter, supervisor, inspector)
7. Validity	Yes (5-10 years)	Yes (2 years)
8. Renewal	Yes	Yes (when proving: worked with GRP)
9. Central public database	Yes	Yes
10. The license can be revoked e.g. due to misconduct	Yes	Yes
11.Appeal	Yes	Yes
12. Written and practical part examination independent	Yes/government	Yes/ ISO 17024
13. The trainer is NOT the examiner	Yes	Yes
14. Re-exam	Yes, n-times	Yes, n-times

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