

COUNTRY INFORMATION OF WELMEC MEMBERS



France

1. Organizational Structure and Background

French legal metrology stems from the post-Revolution period. In 1837, the metric system of weights and measures was introduced. Thereafter, legal units of measurement were implemented in the electrical, calorific and other areas and the field of application of controls extended so that today there are 37 categories of measuring instruments subject to French legal metrology regulation. The basic law is still the law of 1837 which has been modified in 2014 to introduce administrative penalties.

Responsibility for legal metrology is at central Government level. The “Division Métrologie” (DM) within the Directorate General of Enterprises (DGE) is part of the Ministry of Economy and Finance which is also in charge of industry. The DM defines the general rules of legal metrology, prepares regulations, surveys designated and notified bodies, co-ordinates metrological controls, market surveillance and the work carried out by regional metrology services, the “DREETS”, participates in European and international meetings (Commission, WELMEC, OIML).

The regional metrology services are in charge of the surveillance of all stakeholders (verification bodies, manufacturers, repairers, installers and users) in regions. According to the region, the name of the regional metrology service is different:

- DREETS for metropolitan France regions excluding Ile-de-France,
- DRIEETS for the Ile-de-France region,
- DEETS or DGCOPOP for the Overseas Territories.

Fundamental metrology in France is the responsibility of the “Laboratoire National de Métrologie et d'Essais” (LNE) since January 2005. Due to historical reasons, several national laboratories are involved in this activity. The LNE is a public body with commercial activities under the control of the Ministry in charge of industry. It supports the implementation of public policies but also provides various services to the industrials (certification, training, periodic controls).

France has a comprehensive national QA accreditation structure in place. The accreditation of testing laboratories is delivered by the French accreditation body, the “Comité Français d'Accréditation” (COFRAC). Several bodies accredited by the COFRAC as Certification bodies for quality systems provide QA third party certification.

In legal metrology, great use is being made of external non-governmental organisations to perform type approval work, initial verification, subsequent verifications (periodic verifications and verifications after repair) of instruments in use. Tasks have been widely contracted out to private organisations complying with criteria based on EN 17065, EN 17020, EN 17025 for the tests and having traceable metrological standards and competence. Evidence of accreditation by COFRAC or equivalent accreditation, is also generally sought. Designation of notified bodies is issued by the ministry; agreement and designation of verification bodies is issued by the “Préfet de Département” (a political appointee representing the national

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government in the locality) [NB the agreements and designations of verification bodies for in-service instruments are generally signed by the regional metrology service on behalf of the “Préfet”] on the advice of the DREETS and based on an initial audit carried out by his service. The inspectors of the regional metrology services monitor and audit the performance of the private companies by surveillance of instruments and premises.

Approved verification bodies also have to report periodically to the regional metrology services. This surveillance by the inspectors of regional metrology services may result in recommending the withdrawal of Préfet approval for the agreed or designed verification bodies. The first external appointees came into operation on the 1st of January 1994 for non-automatic weighing instruments, petrol pumps, liquid petroleum gas pumps and road tanker meters, and engine exhaust gas analysers, it is now widely used for other categories of instruments. After the initial period of the agreement or designation, the bodies have to be accredited by the COFRAC for their activity.

For type examination and approval of quality systems of manufacturers and repairers, the designated body is the LNE (certification department).

National initial verifications of measuring instruments are performed by private bodies designated by the “Préfet de département” or by the manufacturers in the framework of a quality system approved by the LNE.

For many categories, owners of instruments are required by law to maintain a Metrological Information booklet and keep it available for inspection by regional metrology services. The booklet aims at registering details of verifications and repairs and any qualified company carrying out statutory periodic verification

2. Equipment Subject to National Controls

Instruments concerned are listed below, if used for purposes listed in Article 1 of Decree of 3 May 2001 or, concerning Non-Automatic Weighing Instruments if used for purposes listed in 1° to 6° in Article 5.1.III of this Decree.

- Weights
- Non automatic weighing instruments
- Automatic weighing instruments
- Cold water meters
- Hot water meters
- Gas meters
- Orifice plate meters
- Gas volume conversion devices
- Gas mass measuring devices
- Active electrical energy meters
- Heat meters
- Instruments for determining energy repartition (other than heat meters)
- Measuring system for continuous and dynamic measurement of quantities of liquids other than water
- Depth gauges for liquids
- Bulk milk tankers

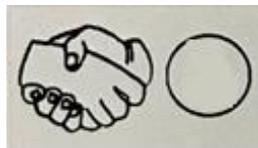
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- Calibrated tank
- Materiel measures of length
- Odometers
- Area measuring instruments
- Multi-dimensional measuring instruments
- Exhaust gas analysers
- Smoke meters (Opacimeters)
- Manometers for vehicle tyres
- Speed meters
- Instruments to measure the distance between cars
- Breath analysers
- Tachographs
- Taximeters
- Sound meters
- Moisture meters for cereal grain
- Refractometers for grape
- Sugar meters for beet
- Thermometers for control of food temperature control or expertise
- Alcohol meter and alcohol tables
- Bottles used as measuring container
- Capacity measures for grain
- Capacity measures for liquid.

Instruments are generally subject to type approval, initial verification and mandatory re-verification unless otherwise specified.

3. Markings used in national type examination, national initial verification and subsequent verifications

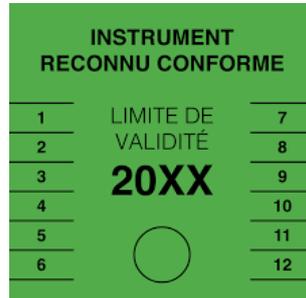
- Type examination marking (“marque d’examen de type”): it is composed of the number and the date of the type examination certificate:
 - before 2007: the number of the type examination certificate is F-YY-L-XXXX with YY, year of the certificate issue, L a letter depending on the category, and XXXX a number;
 - since 2007: the number of the type examination certificate is LNE-XXXXXX with XXXXX a number.
- Marking of the national initial verification (“marque de vérification primitive des instruments neufs”): grey sticker composed of a “handshake” marking and a circle mentioning the identification marking of the manufacturer or the body that carried out this verification. This sticker is on the data plate of the instrument. For some rare categories, the handshake marking is engraved on the data plate;



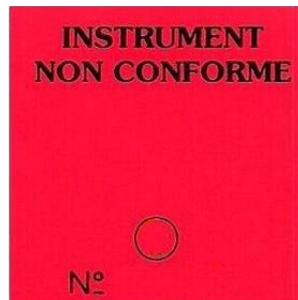
- Marking of control in service (“marque de contrôle en service”):

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- if the instrument is compliant (“instrument reconnu conforme”): a green sticker in the shape of a four-centimetre square (or two-centimetre square for some categories), with a circle mentioning the identification marking of the body that carried out this verification, indicating the month and year of validity, is affixed in order to be visible. The month of validity is ticked.



- if the instrument is non-compliant (“instrument non conforme”): a red sticker in the shape of a four-centimetre square, with a circle mentioning the identification marking of the body that carried out this verification, is affixed on the green sticker;



- Marking of verification after repair (“marque de vérification primitive des instruments réparés”): it is identical to the marking for initial verification, affixed by the repairer or the body that carried out this verification, nearby the data plate of the instrument.



4. Type Examination

LNE (“département Certification des Instruments de Mesure”) is the designated body for the national type approval. LNE (NB number 0071) is also notified body for modules B, H1 and other modules in the field of all specific annexes under MI and NAWI directives. Approvals issued by LNE are publicly published directly on its website (<https://www.lne.fr/recherche-certificats/accueil?lang=EN&prov=LNE>). LNE is also designated to renew or amend when necessary the certificates previously issued by the ministry.

All approvals previously (until 1st January 2002) issued by the “Sous direction de la métrologie” (SDM) French authority for legal metrology and by LNE are published directly on the websites ([Liste des approbations émises par le bureau de la métrologie légale entre 1971 et](#)

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[1999 | Direction générale des Entreprises](#) and [Certificats - Décisions d'approbation de modèles 2001 | Direction générale des Entreprises](#)).

5. Initial Verification and Similar European Procedures

National initial verification (“verification primitive des instruments neufs”) is performed by designated independent bodies (see list on [Organismes pour la vérification primitive | Direction générale des Entreprises](#)) or by approval of the quality system of the manufacturer.

Concerning MID and NAWID, LNE (NB number 0071) is notified for all modules except F and F1. Cognac Jaugeage (NB number 1761) and Mesure et Services (NB number 1875) are notified bodies for modules F and F1 for some categories, and Tri Pesage Services (NB number 2303) is notified body for module F for MI-006.

LNE and other private designated bodies have their own tariffs.

Quality assurance is also used in the field of verification of repaired instruments (“vérification primitive des instruments réparés”) (see list of repairers with quality system approved and surveyed by LNE on (<https://www.lne.fr/recherche-certificats/accueil?lang=EN&prov=LNE>)).

The requirements for manufacturers and repairers are set out in Decree of 3 May 2001, “arrêté” of 31 December 2001 and for instruments covered by MID and NAWID in “arrêté” of 9 June 2016. The quality system reference is made to ISO 9001 with the specific application to legal metrology (see WELMEC Guides).

6. Control of Instruments in Service

Control of instruments in service (“contrôle en service”) is generally based on a mandatory periodical verification performed by approved external bodies evidencing compliance with EN 17020, EN 17025 for the tests and specific metrological requirements. The list of verification bodies per category is available on the website: [Organismes pour la vérification périodique | Direction générale des Entreprises](#).

The details about the control in service for each category are fixed in specific “arrêté” concerning each category of measuring instrument. Inspection intervals are for example:

- Trade weights: 4 years
- Weighing instruments in regulated use
 - Direct sales to the public (Max< 30 kg): 2 years
 - Other regulated uses: 1 year
- Petrol Pumps: 1 year
- Taximeters: 1 year
- Gas analysers: 1 year
- Moisture meters for cereal grain: 1 year
- Thermometers for control of food temperature control or expertise: 1 year
- Refractometers for grape: 1 year
- Gas meters: 5 years (turbine or rotary meters) or 20 years (diaphragm meters)
- Electrical meters: 10 years

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Error allowances are generally MPE (maximum permissible error) x 2 for weighing instruments, MPE x 1 for most liquid measuring meters other than water.

7. Market Surveillance

Market surveillance is performed by DM and the DREETS. This activity is in development (it includes use of information gathered from classical metrological activities and a special budget for complete testing of some instruments).

8. Surveillance of Instruments in Service

In addition to unannounced controls by the regional metrology services, since 2005 systematic and national operation of instruments in service have been carried out every year.

They are prepared by DM and the regional metrology services (agreement on the target, the tests and examination to be performed, the weeks of action, the gathering of data).

They touched the following fields:

- 2007 on road tankers, gas analysers,
- 2008 on NAWI (scales and weighbridges),
- 2009 on AWI and NAWI used for weighing food for variable quantity,
- 2010 on fuel dispensers,
- 2011 on NAWI used in food and agriculture companies,
- 2012 on cold water meters,
- 2013 on Point Of Sale associated with NAWI,
- 2014 on petrol pump and the associated payment device,
- 2015 on NAWI used in food and agriculture companies,
- 2016 on tachographs used in transports of passengers,
- 2017 on heat meters,
- 2018 on measuring systems for continuous and dynamic measurement of quantities of liquids other than water on trucks,
- 2019 on importers and distributors,
- 2020 on heat meters,
- 2021 on non-automatic weighing instruments > 5 tonnes,
- 2022 on measuring systems for continuous and dynamic measurement of quantities of liquids other than water and self-service devices,
- 2023 on tachographs,
- 2024 on water meters and gas meters.

Results are communicated to stakeholders and media.

9. Legal Metrology Practitioners and Scope

DM has 8 engineers working in legal metrology. There are 128 engineers, technicians and verification staff employed by the regional metrology services. The training of the legal metrology officers is provided by the Engineering School IMT North Europe which provides a specialised training in quality and metrology.

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10. Sanctions

Two systems of sanctions exist in France: a system of administrative penalties and a system of punishment by courts. Particularly, are punishable by fine or imprisonment and subject to the jurisdiction of the courts:

- use of false or inaccurate instruments or the giving of short measure
- possession, selling, delivering, putting in service in France measuring instruments that do not comply with regulations

Other offences are punishable by administrative fine such as:

- use of non-compliant instrument,
- use of instrument which hasn't had mandatory periodic verification,
- use of instrument repaired which hasn't been verified after reparation,
- repairing an instrument without submit it to verification after

Inspectors may confiscate instruments but would refer offences to the prosecuting authorities. Inspectors may issue written warnings. Fines imposed by courts are set by general legislation whereas administrative fines are set by specific legal metrology laws.

11. Directive 2014/31/EU (NAWID)

This Directive is implemented by Decree of 3 May 1961, Decree of 3 May 2001 and “arrêté” of 9 June 2016. Article 1(2) categories a-f instruments controlled by the Directive were all subject to French legal metrology controls prior to implementation of the Directive. Since December 1999 LNE (NB number 0071) is the only French notified body for modules B, D, D1 and G. Since February 2010, Cognac Jaugeage (NB number 1761) is a notified body for module F and F1.

No administrative gravity values as referred in Annex II point 7.2 have been identified. The manufacturer is responsible for bringing the instrument in conformity with the maximum permissible errors for the place of use. However, the approach developed in guide WELMEC 2 is accepted.

Certification and approval of manufacturers quality systems is based on existing national provisions, defined in a reference document of 2018 based on ISO 9001 and metrological requirements reliance being placed upon the guidance for applying ISO 9001 criteria to manufacturers systems.

12. Directive 2014/32/EU (MID)

This Directive is implemented by Decree of 3 May 1961, Decree of 3 May 2001 and “arrêté” of 9 June 2016.

The directive is transposed for all categories, except for length measuring instruments and some capacity serving measures. This gives the possibility to have notified bodies even in the field that are not regulated in France and also to assist other Member States in the field of market surveillance and exchange of information if needed.

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DM is in charge of implementation of MID in general, the designation of notified bodies and market surveillance together with DREETS.

LNE (NB number 0071) is notified body for all modules except F and F1 and for all categories.

Other private independent bodies have been notified for module F and F1 for different categories of measuring instruments (Cognac Jaugeage (NB number 1761), Mesure et Services (NB number 1875), and Tri Pesage Services (NB number 2303).

13. Gravity Information

The following is for information only:

There are no gravity zones established in France for the regulation about NAWI and there are no requirements for zone stickers.

Manufacturers have the responsibility for bringing instruments within the maximum permissible errors for new instruments at the place of use.

To achieve this, the new gravity concept as described in WELMEC guide 2 is accepted in France.

Manufacturers may also define their own zones according to their market organisation.