

Title	Regulations for the accreditation of Bodies providing certifications of persons undertaking activities in conformity with Regulations (CE) 303/2008, 304/2008, 305/2008 and 306/2008.
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INTRODUCTION

The Ministry of the Environment, Land and Maritime Protection (MATTM), in accordance with the designation by the Ministry of Economic Development of ACCREDIA as the sole national body authorized to undertake accreditation and market surveillance activities, has requested ACCREDIA's Department of Certification and Inspection, to set out regulations and procedures governing the accreditation activities of Certification Bodies (CBs) of personnel (persons) in compliance with the regulations for the implementation of Reg. 842/2006/CE on certain fluorinated greenhouse gases (GHGs) and in conformity with the standard UNI CEI EN ISO/IEC 17024 and related applicable documents.

In order to make consultation easier, this document is structured, for the most part, using the numbering to be found in standard UNI CEI EN ISO/IEC 17024, providing further details and comments where necessary, in accordance with the requirements of the standard, setting out a reference context with which the CBs shall conform in order to retain ACCREDIA accreditation concerning the granting of the specific certifications in question.

In cases of differences or conflicts between the requirements of the various documents, the following documents shall have priority:

- Regulation 842/2006/CE, Regulations 303/2008/CE, 304/2008/CE, 305/2008/CE and 306/2008/CE;
- The Presidential Decree concerning the modalities of implementation of Reg. 842/2006/CE on certain fluorinated GHGs;
- The present Regulation;
- Standard UNI CEI EN ISO/IEC 17024:2004;
- ACCREDIA's General Regulations and application Guides.

1. SCOPE AND FIELD OF APPLICATION

The field of application of the present document is that of the accreditation of bodies providing and operating the certification of:

- personnel undertaking one, or more than one, of the following activities on stationary refrigeration equipment, air conditioning systems and heat pumps containing fluorinated GHGs (Reg. 303/2008/CE):
 - a) control of leakages from applications containing at least 3 kg of fluorinated GHGs and of applications containing at least 6 kg of fluorinated GHGs of hermetically sealed systems, labeled accordingly.
 - b) recovery;
 - c) installation;
 - d) maintenance and repair.
- personnel undertaking one or more than one of the following activities related to stationary anti-incendary systems (Reg. 304/2008/CE):
 - a) control of leakages from applications containing at least 3 kg of fluorinated GHGs;
 - b) recovery of fluorinated GHGs, also with regard to fire extinguishers;
 - c) installation;
 - d) maintenance or repair
- personnel undertaking recovery of certain fluorinated GHGs from high tension switches (Reg. 305/2008/CE);

- personnel undertaking the recovery of certain fluorinated GHGs from equipment which contains them (Reg. 306/2008/CE).

All CBs may apply for sector specific accreditation by ACCREDIA. Bodies already possessing accreditation in the PRS (personnel) scheme may apply for extension of certification in this sector.

The present document also sets out the basic competencies for CB personnel. It is the CB's full responsibility to implement the best modalities for qualifying its personnel in order to guarantee conformity with the requirements of the documents and with the applicable standards.

2. NORMATIVE REFERENCES

2.1. EC regulations and laws

- Reg. 842/2006/CE of the European Parliament and Commission of May 17, 2006 on certain fluorinated GHGs;
- Reg. 303/2008/CE of the European Commission of April 2, 2008, which sets out, in conformity with Reg. 842/2006/CE of the European Parliament and Commission, the minimum requirements and conditions for mutual recognition of the certification of business organizations and of personnel with regard to stationary refrigeration equipment, air conditioning systems and heat pumps containing fluorinated GHGs;
- Reg. 304/2008/CE of the European Commission of April 2, 2008, which sets out, in conformity with Reg. 842/2006 of the European Parliament and of the Commission,, the minimum requirements and conditions for mutual recognition of the certification of business organizations and of personnel with regard to stationary anti-incendiary systems and fire extinguishers containing certain fluorinated GHGs;
- Reg. 304/2008/CE of the European Commission of April 2, 2008, which sets out, in conformity with Reg. 842/2006 of the European Parliament and of the Commission, the minimum requirements and conditions for mutual recognition of the certification of personnel undertaking the recovery of certain fluorinated GHGs from high tension switches;
- Reg. 306/2008/CE of the European Commission of April 2, 2008, which sets out, in conformity with Reg. 842/2006 of the European Parliament and of the Commission, the minimum requirements and conditions for mutual recognition of the certification of personnel undertaking the recovery of certain solvents based on fluorinated GHGs from equipment;
- Presidential Decree concerning the modalities of implementation of Reg. 842/2006/CE of the European Parliament and Commission of May 17, 2006, on certain fluorinated GHGs.

2.2. Standards and technical regulations

- ISO/IEC 17024:2004 General requirements for CBs operating certification of personnel;
- IAF GD 24:2009 "IAF Guidance on the Application of ISO/IEC 17024:2003";
- RG-01 ACCREDIA "Regulation for the accreditation of CBs" in the current version;
- RG-09 ACCREDIA "Regulation for the use of the ACCREDIA mark" in the current version;
- UNI EN 13313:2004 Refrigeration installations and heat pumps – competence of the personnel.

3. TERMS AND DEFINITIONS

The terms and definitions of the standard are applicable with the following specifications:

Assessment Body: a body which is independent of all prevalent interests, qualified by the CB for the preparation and management of the personnel which will be certified. The Assessment Body may also be the same as the Certification Body.

Note: the Assessment Body is regulated by the CB.

4. REQUIREMENTS FOR CBs

4.1 The CB

The CB shall activate, promote, maintain and manage the certification system in conformity with the standard UNI CEI EN ISO/IEC 17024.

4.2 Organizational structure

4.2.1. The requirements of the standard are applicable with the following specifications:

4.2.2. The CB shall organize a structure which contains:

- an Assessment Body which is independent of all prevalent interests, qualified by the CB for the preparation and management of the examinations of qualification of personnel in accordance with the present Regulation.
- a decision-making body.

4.2.3 The CB shall provide detailed information of the certification process and of the relative costs.

The pricelist shall detail the costs separately, pertaining to:

- the presentation of the application for certification;
- the examination of the documents;
- the audits, indicating separately those regarding the initial, supplementary, extraordinary, extension, surveillance, renewal and examination session evaluations;
- the issue of the certification;
- extra expenses (board, accommodation, car);

The pricelist shall be sent by the CB, together with the accreditation certificate, to the MATTM, in compliance with article 5, sub-section 1 of the Presidential Decree.

Any changes made to the pricelist shall be submitted to the MATTM in advance.

4.3 Development and maintenance of a certification scheme

The CB shall:

- a) set down the operative conditions, including the procedures for the correct application of the scheme in conformity with the present document;
- b) identify the Assessment Bodies for annual surveillance;
- c) set up a suitable system for the maintenance of the records and registrations which shall be kept, at least, for one cycle of certification;
- d) be responsible for issuing all certificates.

4.4 Management system

As part of the documentation of its QMS, the CB shall draw up and issue a regulation for the certification of the PRS scheme containing all the applicable requirements in accordance with the standard UNI CEI EN ISO/IEC 17024, with ACCREDIA regulation RG-01 and with the present document.

4.5 Sub-contracting

4.5.1. The requirements of the standard are applicable with the specifications given in § 4.5.2 and 4.5.3.

4.5.2 The CB shall give to ACCREDIA the following information/documents:

- a) the procedures for the management of sub-contracting activities;
- b) the list of persons or members of organizations holding sub-contracts, along with their respective CVs, containing evidence of sector competencies and of agreements signed with individual organizations and/or persons.

4.5.3 If the CB sub-contracts examination testing activities, it shall provide a list of the testing instruments, and of the calibration procedures and copies of all the calibration reports concerning such instruments.

4.6 Records

The requirements of the standard are applicable with the following specifications:

The CB shall keep a record permitting the verification of the position of the certified persons. The record shall be kept for at least 5 years.

The CB shall send to MATTM, and to ACCREDIA in copy, an annual report of the activities they have undertaken.

4.7 Confidentiality

The CB shall guarantee that the treatment of the data of applicants for certification and/or of the data related to the qualification of the Assessment Bodies are in compliance with the law.

Confidentiality shall involve all persons operating for the CB, including members of the scheme committee as well as external bodies such as assessment bodies.

4.8 Security of data

The requirements of the standard are applicable.

5. REQUIREMENTS FOR PERSONS USED OR FOR COLLABORATORS HOLDING A CONTRACT WITH THE CB

5.1 General

The requirements of the standard are applicable.

5.2 Requirements regarding the examiners

The requirements of the standard are applicable.

5.3 Assessment Body

The Assessment Body shall:

- a) apply the system procedures of the CB;
- b) prepare and oversee the exams;
- c) manage the records in conformity with the requirements of the CB;
- d) if the organization in question also conducts sector training, it shall provide documentary evidence that:
 - the members of the examination commission have in no manner whatsoever been involved in activities with the applicants;
 - the examination samples have not been used for training;
- e) use only documents and applications for examinations prepared or approved by the CB;
- f) use suitable instruments, guaranteeing both calibration and maintenance.

The manufacturers and/or users of high tension switches and of equipment containing fluorinated GHG solvents, may request a CB for qualification as an assessment body, also for their own personnel, provided that they possess the requirements contained in standard UNI CEI EN ISO/IEC 17024 and in the applicable technical regulations, as well as the minimum requirements of Reg. 305/2008/CE and Reg. 306/2008/CE.

6. THE CERTIFICATION PROCESS

6.1 Application for certification

6.1.1 The application shall be made to the CB, containing the following information:

full name and contact details and all other information necessary for identification, together with

- a) a copy of a valid ID document;
- b) two passport size photos.

6.1.2 Applicants may request a certificate, in conformity with Reg. 303/2008/CE for the following categories:

- a) Category 1 – for undertaking all the following activities:
 - leakage control of containers with contents of at least 3 kg and 6 kg of fluorinated GHGs, hermetically sealed, with the appropriate label;
 - recovery;
 - installation;
 - maintenance or repair;
- b) Category 2 – for undertaking all the following activities:
 - recovery;
 - installation;
 - maintenance or repair;with regard to refrigeration equipment, air conditioning and heat pumps containing less than 3 kg, or in the case of hermetically sealed systems, labeled as such, less than 6 kg of fluorinated GHGs. Also with regard to refrigeration equipment, air conditioning and heat pumps containing at least 3 kg, or at least 6 kg with hermetically sealed systems, labeled as such, of fluorinated GHGs, provided that this does not involve an intervention on refrigeration circuits containing fluorinated GHGs.
- c) Category 3 – for undertaking recovery activity with regard to equipment, air conditioning and heat pumps containing less than 3 kg, or, in the case of hermetically sealed systems, labeled as such, less than 6 kg of fluorinated GHGs.
- d) Category 4 – for undertaking control activity of leakages of containers with contents of at least 3 kg of fluorinated GHGs, or containing at least 6 kg of fluorinated GHGs with hermetically sealed systems, labeled as such, provided that it does not involve an intervention on refrigeration circuits containing fluorinated GHGs.

6.1.3 Applicants may request a certificate, in conformity with Reg. 304/2008/CE in order to undertake one or more of the following activities related to stationary anti-incendiary systems:

- a) control of leakages from containers with contents of at least 3 kg of fluorinated GHGs;
- b) recovery of GHGs, also with regard to fire extinguishers;
- c) installation;
- d) maintenance or repair.

6.1.4 Applicants may request a certificate, in conformity with Reg. 305/2008/CE, to undertake the recovery of fluorinated GHGs from high tension switches.

6.1.5 Applicants may request a certificate, in conformity with Reg. 306/2008/CE, to undertake the recovery of certain GHG-based solvents from their containers.

6.2 Evaluation

6.2.1 The CB shall evaluate the requirements through the verification of the application for certification.

6.2.2 Conduct of the exam.

6.2.2.1 General

The exam shall take place at the assessment body, in the presence of a commission consisting of at least one commissioner and one assistant, with the modalities as described below:

Regulation 303/2008/CE

The exam for each of the categories described in § 6.1.2 consists of:

a) a technical test, given in Annex 1 with the letter T in the column of the respective category. Such test consists of a multiple choice question and answer as per the table below:

Category	Number of multiple choice questions and answers
Category 1	30
Category 2	20
Category 3	10
Category 4	10

b) a practical test, indicated in Annex 1 with the letter P in the column of the respective category, during which the applicant fulfills the corresponding task, having available the necessary materials, equipment and instruments.

The exam involves each group of competencies and knowledge indicated in Annex 1, with the numbers 1, 2, 3, 4, 5 and 10.

The exam involves at least one of the groups of competencies and knowledge indicated in Annex 1, with numbers 6, 7, 8 and 9. The applicant is not aware, before the exam, of which of the four groups will be evaluated.

When, in the “category” columns given in Annex 1, a number of boxes regarding the competencies and knowledge are gathered in one single column (various competencies and knowledge) it means that during the exam it is not necessary to evaluate all of the competencies and knowledge.

Reg. 304/2008/CE

The exam consists of:

a) a theoretical test, indicated in Annex A2 with the letter T in the column “Type of test”. Such test consists of 15 multiple choice questions.

b) a practical test, indicated in Annex A2 with the letter P in the column “Type of test”, during which the applicant fulfills the corresponding task, having available the necessary materials, equipment and instruments.

Reg. 305/2008/CE

The exam consists of:

a) a theoretical test, indicated in Annex A3 with the letter T in the column “Type of test”. Such test consists of 15 multiple choice questions.

b) a practical test, indicated in Annex A3 with the letter P in the column “Type of test”, during which the applicant fulfills the corresponding task, having available the necessary materials, equipment and instruments.

Reg. 306/2008/CE

The exam consists of:

a) a theoretical test, indicated in Annex A4 with the letter T in the column “Type of test”. Such test consists of 10 multiple choice questions.

- b) a practical test, indicated in Annex A4 with the letter P in the column “Type of test”, during which the applicant fulfills the corresponding task, having available the necessary materials, equipment and instruments.

6.2.2.2 Duration of the exams.

The duration of the exams is as follows:

	Duration of technical exam	Duration of practical exam	Total duration
<u>Reg. 303/2008/CE</u>			
Category 1	1 hour 30 mins	2 hours 30 mins	4 hours
Category 2	60 mins	1 hour 30 mins	2 hours 30 mins
Category 3	30 mins	45 mins	1 hour 15 mins
Category 4	30 mins	45 mins	1 hour 15 mins
<u>Reg. 304/2008/CE</u>			
-	45 mins	45 mins	1 hour 30 mins
<u>Reg. 305/2008/CE</u>			
-	45 mins	45 mins	1 hour 30 mins
<u>Reg. 306/2008/CE</u>			
-	30 mins	30 mins	60 mins

6.2.3 Evaluation of the qualification exams

6.2.3.1 An examiner shall be responsible for the evaluation of the exams by means of use of the model answers. The theoretical exam and the practical one shall be evaluated separately.

6.2.3.2 In order to be suitable for certification, the applicant must obtain a minimum grading of 60% in each of the exams, and a minimum total grading of 70%. The total grading – N – is calculated according to this formula:

$$N = 0,30 \text{ nt} + 0,70 \text{ np}$$

where:

- nt is the grading for the theoretical exam;
- np is the grading for the practical exam.

Example Category 1

In the theoretical exam the applicant, out of a total of 30 questions, gives 20 correct answers and 10 wrong answers (66% grading)

In the practical exam he obtains 72% grading

Theoretical exam grading $66 \times 0,3 = 19,8$

Practical exam grading $72 \times 0,7 = 50,4$

The applicant totalizes $19,8 + 50,4 = 70,2\%$ so he passes the exams

The applicant who in the theoretical exam does not reach 60% cannot access the practical exam. Therefore, the applicant must repeat the exam (there is no limit of time to wait).

6.2.3 Records

All the documentation of the exam and any course done by the applicants shall be clearly identified (also with the use of a stamp or signature), examined and approved by the assessment body and sent to the CB at the end of the exam session.

6.3 Decision regarding certification

- 6.3.1 The decision regarding certification shall be taken solely by the CB according to the information gathered during the course of the certification process (preliminary investigation, theoretical and practical tests). The members of the decision-making body are not permitted to have taken part in the exam of the applicant, or in his/her training.
One member, with 5 years of documented specialist competencies in the sector, shall be present on the body, also having veto rights.
- 6.3.2 The CB shall give a certificate to all persons who have successfully concluded the process and who have enrolled on the register in accordance with the Presidential Decree.
The CB shall retain exclusive possession of the certificates.

The certificate shall take the form of a card which will be issued with a signed letter and authorized by the legal representative of the CB. Within 10 days of the issue of the certificate, the CB shall insert electronically in the appropriate section of the register, in accordance with the Presidential Decree, the information regarding the persons who have obtained the certificate.

6.4 Surveillance

- 6.4.1 On an annual basis, all certified persons, either directly or through their employer, shall send a declaration, in accordance with Presidential Decree 445/2000, stating
- that it has undertaken at least one intervention action on an installation during the year;
 - that there have not been any complaints from clients regarding work carried out.
- 6.4.2 At the end of the assessments the CB issues a competence declaration which is an integral part of the certificate.. Within 10 days of the issue of the declaration, the CB shall insert electronically in the relevant section of the of the record file, as per the Presidential Decree, the output of the assessment activities, stating whether certification is to be retained or not.

6.5 Renewal

- 6.5.1 Personnel competence certification has a duration of ten years and renewal occurs following an exam as described in points 6.2.2 and 6.3.
- 6.5.2 At the end of the new exam the CB decides on the issue of the new certification. Within 10 days of the issue of the new certificate , the CB shall insert electronically in the relevant section of the record file, as per the Presidential Decree, all the information regarding the personnel who have obtained new certification.

6.6 Use of certificates, logos or marks

- 6.6.1 Every CB shall set out rules for the issue of its personnel certification logo or mark. These rules shall also define the modalities of use of the logo in the CB's documents and they shall respect the reference standards and the ACCREDIA regulation, RG-09, for use of the mark.
- 6.6.2 Improper use of the certification or misleading use of the certificates or of the mark or logo in any form of publication will incur sanctions involving the suspension or withdrawal of certification, publication of the infringement and, if necessary, legal action.
- 6.6.3 Suspension or withdrawal of certification.
The CB shall suspend or withdraw personnel certification in one or more of the following circumstances:
- a) failure to comply with contractual obligations;
 - b) legitimate written complaint for non-fulfillments with respect to third parties;
 - c) failure to respect the requirements for maintenance and renewal of certification;
 - d) failure to make registration or maintenance payments;

- e) any other failure deriving from failure to respect formal commitments taken on by the organization on the act of certification. Such failures include actions which may negatively influence or damage the image of the CB and of other parties involved;
- f) formal request on the part of the certified organization.

The withdrawal and suspension of certification shall be inserted electronically by the Certification Bodies in the relevant register in compliance with the Presidential Decree within 10 days of such decisions
Information about certificates may also be published on ACCREDIA website, as Accreditation Body through direct interconnection with the electronic National Register of certified people and companies referred to in Article 13 of Presidential Decree 43/2012.

Text of Annex A1 of Reg. 303/2008/CE

COMPETENCIES AND KNOWLEDGE		CATEGORIES			
		1	2	3	4
1	Elementary thermodynamics				
1.01	Knowledge of the ISO basic measurement standards for the temperature, pressure, mass, density and energy	T	T	-	T
1.02	Knowledge of the basic theory of refrigeration plants: elementary thermodynamics (terminology, parameters, fundamental procedures such as over-heating, high and low pressure side, compression heat, enthalpy, refrigeration effect, under-cooling, thermodynamic properties and transformations of refrigerants, including the identification of azeotropic mixes and fluid states.	T	T	-	-
1.03	Use the relevant tables and diagrams and interpret them during a control of indirect leakages (which also includes the verification of the proper functioning of the plant) log P H diagram, saturation tables of a refrigerant, diagram of a simple compression refrigeration cycle.	T	T	-	-
1.04	Describe the function of the principal components of the plant (compressor, evaporator, condenser, thermostatic expansion valves) and the thermodynamic transformers of the refrigerant.	T	T	--	-
1.05	Knowledge of the basic functioning of the following components used in a refrigeration plant, and their role and importance in the prevention and finding of refrigeration leakages: a) valves (spherical valves, diaphragms, globe valves, safety valves); b) devices for controlling temperature and pressure; c) glass lights and humidity indicators; d) defrosting control; e) plant protection devices; f) measuring instruments as multiple scale gauge groups; g) oil control systems; h) receivers; i) liquid and oil separators.		-	-	-
2	Impact of refrigerants on the environment and related environmental standard.				
2.01	Basic knowledge of climate changes and of the Kyoto Protocol	T	T	T	T
2.02	Basic knowledge of the concept of global warming potential (GWP), of the use of fluorinated GHGs and of other refrigerant substances; basic knowledge of the environmental impact of fluorinated GHGs in terms of GWP and of the Reg. 842/2006/CE and of other regulations for the implementation of the present document.	T	T	T	T
3	Controls to be carried out before activation of the plant after a long pause, after a maintenance or a repair or during operative activity				
3.01	Carry out a pressure test to check plant resistance.	P	P	-	-
3.02	Carry out a pressure test to check plant condition				
3.03	Use a vacuum pump				
3.04	Empty the plant to evacuate air and humidity following the usual procedure				
3.05	Note the data in the plant records and prepare a report of the tests and the controls undertaken during the verification.	T	T	-	-

4	Leakage search controls				
4.01	Knowledge of the potential leakage points of the refrigeration equipment, air conditioning and heat pumps.	T	T	-	T
4.02	Consult the record of equipment before starting a leakage search and identify the information regarding and recurrent problems or problems requiring special attention.	T	T	-	T
4.03	Carry out a manual and visual control of the entire plant in accordance with Reg. 1516/2007/CE of the European Commission, dated Dec. 19, 2007 which establishes, in conformity with Reg. 842/2006/CE of the European Parliament and of the Commission, the requirement standards for the control of leakages for stationary refrigeration equipment, air conditioning and heat pumps containing fluorinated GHGs (1).	P	P	-	P
4.04	Control the plant to identify any leakages using an indirect measuring method in conformity with Reg. 1516/2007CE and with the plant's instruction booklet.	P	P	-	P
4.05	Use portable measuring instruments: manometers, thermometers, measurement multi-meters of volts, amps, ohms, as part of the indirect measuring methods for leakage search and interpret the relative values.	P	P	-	P
4.06	Control the plant to identify leakages using one of the direct measuring methods in conformity with Reg. 1516/2007/CE.	P	-	-	-
4.07	Control the plant to identify leakages using one of the direct measuring methods which do not require an intervention on the refrigeration circuits, in conformity with Reg. 1516/2007/CE.	-	P	-	P
4.08	Use an electronic device for leakage search.	P	P	-	P
4.09	Complete the equipment record register	T	T	-	T
5	Eco-compatible management of the plant and of the refrigerant in operations of installation, maintenance, repair or recovery				
5.01	Connect and disconnect the manometers and the minimum emission lines	P	P	-	-
5.02	Empty and refill a refrigerant cylinder, both liquid and gas state	P	P	P	-
5.03	Use equipment for recovery of the refrigerant, connecting and disconnecting it with minimal emissions	P	P	P	-
5.04	Cleanse the plant of all oil contaminated by fluorinated GHGs.	P	P	P	-
5.05	Identify the state of the refrigerant – liquid, gas – and its conditions (cooled, saturated or over-heated below) before loading in order to choose the suitable method and the correct volume of the load. Fill the plant with the refrigerant (both in the liquid and in the steam phases) without incurring leakages.	P	P	-	-
5.06	Weigh the refrigerant using scales.	P	P	P	-
5.07	Complete the equipment record noting down all the information regarding recovered or added refrigerant.	T	T	-	-
5.08	Have knowledge of the relevant regulations and procedures for treating, storing and transporting refrigerants and contaminated oils.	T	T	T	-

6	Component: installation, activation and maintenance of alternative, screw, scroll and simple and double stage compressors				
6.01	Explain the basic functioning of a compressor (including the regulation of power and the lubrication system) and the leakage risks of refrigerants.	T	T	-	-
6.02	Install a compressor, including the control and safety equipment, in such a way that no leakage takes place once the plant has been activated.	P	-	-	-
6.03	Regulate the safety and control switches.	P	-	-	-
6.04	Regulate the suction and discharge valves.				
6.05	Control the oil return circuit.				
6.06	Activate and stop a compressor and verify the good functioning, also noting the measurement data during operation.	P	-	-	-
6.07	Prepare a report of the conditions of the compressor, indicating any operative problems which could cause damage in the long-term, or cause leakages of refrigerants.	T	-	-	-
7	Component: installation, activation and maintenance of water or air cooled condensers				
7.01	Explain the basic functioning of a condenser and the related leakage risks	T	T	-	-
7.02	Regulate the delivery pressure control instruments of a condenser	P	-	-	-
7.03	Install a condenser , including the control and safety equipment in such a way that no leakage takes place once the plant has been activated.	P	-	-	-
7.04	Regulate the security and control regulations.	P	-	-	-
7.05	Control the discharge and liquid lines.				
7.06	Cleanse the non-condensable gases from the condenser using a draining device for refrigeration plants.	P	-	-	-
7.07	Activate and stop a condenser and check that it works properly, taking data during operative activities.	P	-	-	-
7.08	Control the surface of the condenser.	P	-	-	-
7.09	Prepare a report of the conditions of the condenser, indicating any operative problems which could cause damage in the long-term, or cause leakages of refrigerants.	T	-	-	-
8	Component: installation, activation and maintenance of water or air cooled condensers				
8.01	Explain the basic functioning of an evaporator (including the defrosting system) and related leakage risks.	T	T	-	-
8.02	Regulate the control instruments of steam pressure of an evaporator	P	-	-	-
8.03	Install an evaporator, including the control and safety equipment in such a way that no leakage takes place once the plant has been activated.	P	-	-	-
8.04	Regulate the safety and control switches.	P	-	-	-
8.05	Verify that the liquid and suction pipes are in the correct position				
8.06	Control the hot gas defrosting line.				
8.07	Regulate the steam pressure regulating valve.				
8.08	Activate and stop an evaporator and check that it works properly, taking data during operative activities.	P	-	-	-
8.09	Control the surface area of the evaporator.	P	-	-	-
8.10	Prepare a report of the conditions of the evaporator, indicating any operative problems which could cause damage in the long-term, or cause leakages of refrigerants.	T	-	-	-

9	Component: installation, activation, repair of thermostatic expansion valves and other components.				
9.01	Explain the basic functioning of the various types of expansion regulators (thermostatic valves, capillary tubes) and the related leakage risks.	T	T	-	-
9.02	Install the valves in the correct position	P	-	-	-
9.03	Regulate a mechanical and electronic thermostatic expansion valve	P	-	-	-
9.04	Regulate a mechanical and electronic thermostat.				
9.05	Regulate a pressure valve.				
9.06	Regulate a mechanical and electronic pressure restrictor.	P	-	-	-
9.07	Control the functioning of an oil separator.				
9.08	Control the conditions of a drying filter	T	-	-	-
9.09	Prepare a report on the conditions of these components indicating any operative problems which could cause damage in the long-term, or cause leakages of refrigerants.				
10	Piping: install hermetic piping in a refrigeration plant				
10.01	Carry out welding and soldering waterproofing on metal pipes used in plants of refrigeration, air conditioning or heat pumps.	P	P	-	-
10.02	Prepare and control pipe supports and components.	P	P	-	-

Text of Annex A2 of Reg. 304/2008/CE

MINIMUM COMPETENCIES AND KNOWLEDGE		Type of test
1	To have basic knowledge of environmental problems – climate change, the Kyoto Protocol, GWP of fluorinated GHGs.	T
2	To have basic knowledge of the relevant technical standards	T
3	To have basic knowledge of Reg. 842/2006/CE and of the regulations implementing it.	T
4	To have good knowledge of the various types of anti-incendiary equipment on the market containing fluorinated GHGs.	T
5	To have good knowledge of the various types of valves, activation mechanisms, handling in safe conditions, prevention of discharges and leakages.	T
6	To have good knowledge of the instruments necessary for handling the substances and working in safe conditions.	T
7	To be able to install the containers of the anti-incendiary protection plant which will contain fluorinated GHGs.	P
8	To know the modalities for the transit of pressurized containers containing fluorinated GHGs.	T
9	To know how to consult the record of the plant before starting a search for leakages and to identify the relevant information regarding any recurrent problems or other problems requiring attention.	T
10	To know how to carry out a manual and visual control of the entire plant to search for leakages in conformity with Reg. 1497/2007/CE of the European Commission, dated Dec. 18, 2007, which establishes, in conformity with Reg. 842/2006/CE of the European Parliament and Commission the standard requirements for the control of leakages for stationary anti-incendiary systems containing certain fluorinated GHGs.	P
11	To know the eco-compatible practices for the recovery of fluorinated GHGs during the emptying and reloading of anti-incendiary systems.	T

Text of Annex A3 of Reg. 305/2008/CE

MINIMUM COMPETENCIES AND KNOWLEDGE		Type of test
1	To have a basic knowledge of the environmental problems – climate change, the Kyoto Protocol, GWP), of Reg. 824/2006/CE and of the regulations for implementing the Regulation..	T
2	Physical, chemical and environmental characteristics of the SF6	T
3	Use of the SF6 in electrical equipment	T
4	Quality of SF6 according to the standards of the relevant sector	T
5	Knowledge related to electrical equipment planning	T
6	Control of the quality of the SF6	P
7	Recovery of SF6 and mixtures containing SF6 and cleansing of SF6	P
8	Storage and transport of SF6	T
9	Use of equipment for the recovery of SF6P	P
10	Use of tight drilling systems, where necessary	P
11	Re-use of SF6 and various categories of re-use	T
12	Activities regarding open compartments containing SF6	P
13	Neutralization of SF6 sub-products	T
14	Monitoring of SF6 and related obligations concerning the recording of data in accordance with national or EU standards or of international agreements	T

Text of Annex A4 of Reg. 306/2008/CE

MINIMUM COMPETENCIES AND KNOWLEDGE		Type of test
1	To have a basic knowledge of the environmental problems – climate change, the Kyoto Protocol, GWP), of Reg. 824/2006/CE and of the regulations for implementing the Regulation..	T
2	Physical, chemical and environmental characteristics of fluorinated GHGs used as solvents	T
3	Use of fluorinated GHGs as solvents	T
4	Recovery of solvents based on fluorinated GHGs	P
5	Storage and transport of solvents based on fluorinated GHGs	T
6	Use of equipment for the recovery of systems containing solvents based on fluorinated GHGs	P