CERTIFICATION REFERENCE FRAMEWORK OF PERSONS IN FUNCTIONAL SAFETY ACCORDING TO THE IEC 61511 STANDARD

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Translation of the original French document:

PR-1056-AB : Référentiel de certification de personnes en sécurité fonctionnelle selon la norme IEC 61511 – Quali-SIL, Version 3.1 du 30 avril 2019.

Validity of the document

This version of the Quali-Sil reference framework (version 3.1) was approved following the presentation made on january 29th, 2019 to the steering committee.

Previous versions :

Quali-SIL reference framework	Version 3 of March 19 ^{th,} 2018 (PR-1056-AA)	
Quali-SIL reference framework	Version 2 (English) of January 19 th , 2011	
Quali-SIL reference framework	Version 2 of January 29 th , 2011	
Quali-SIL reference framework	Version 1 of september 10 th , 2008	

Main changes compared to the previous version:

- Integration of the field experience module. (chapter 6.2)
- Evolution of admission rules (chapter 6.5).

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Foreword

Functional safety standards become essential to meet the safety requirements of industrial installations. Indeed, the Safety Instrumented Systems (SIS) take an increasing place in many sectors of activity, by using more and more complex technologies in which the software becomes ubiquitous.

In the process industry, the standard IEC 61511 [3] published in 2003 in its initial version and revised in 2016, tends to become the reference, especially for the sectors with significant risks such as chemistry, petrochemistry, Oil & Gas and energy. This standard has been designed to be an implementation of the IEC 61508 series in the process industries sector. IEC 61511 was adopted by CENELEC as a European standard (EN) and then, by AFNOR as an approved French standard NF.

In France, the regulation of classified installations refers to this standard for instrumented risk control measures (MMRI) aimed at controlling the risks of accidents that could affect the interests mentioned in Article L.511-1 of the Code of Environment, through:

- the guide DT93 [9] published jointly by the UFIP and the UIC and which was recognized by the Ministry in charge of the environment in application of the article 8 of the decree of the October 4, 2010 [6],
- the doctrine note MMRI [8] published by the General Directorate for Risk Prevention, Ministry of Ecology, Sustainable Development and Energy.

IEC 61511 incorporates two fundamental concepts: the safety lifecycle and the safety integrity levels (SIL). It defines safety requirements that mainly result in:

- The definition of a safety policy that must be implemented through a functional safety management system and a clearly defined organization,
- Hazard identification and risk analysis to define functional safety requirements,
- The activities necessary for the design of the SIS and their installation,
- evaluation, verification and validation operations,
- the maintenance of functional safety, notably through the operation, testing, inspection, maintenance or modification of the SIS,
- the recording of events and their analysis.

All these requirements make it possible to achieve and maintain the functional safety objectives with a high level of consistency during all phases of the life cycle of the instrumented safety system.

For this, the adoption of an efficient organization and the involvement of competent resources in their field of activity, at each stage of the life cycle, are prerequisites for any functional safety approach.

The Quali-SIL certification reference system meets the requirements defined in:

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- The IEC 61511 standard, especially in chapter 5.2.2 relating to organization and resources,
- the application guide DT93, the decree of October 4th 2010 for the management and control of the aging of the MMRI, mainly in chapter 8 relating to the management of skills

It is part of a national and international framework.

INERIS certifies persons in the field of functional safety, in accordance with the provisions defined in the Quali-SIL reference system, developed according to the European standard NF EN ISO / IEC 17024: 2012 [2], applicable to certification bodies.

This document defines:

- The organizational structure dedicated to the particular certification system,
- The certification process which is based on training, initial evaluation and a periodic reassessment of the competency,
- The management of the impartiality of the granting of certifications.

Warning

INERIS cannot be held responsible for any accident caused by an error of a person certified according to the Quali-SIL scheme, at any phases of the life cycle, from the risk analysis to the dismantling of the instrumented safety system. The Quali-SIL certification is limited to attesting the knowledge of the person and his/her ability to implement the IEC 61511 standard in the activities specified by the type of certificate obtained.

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1. OBJECT

Quali-SIL is a special scheme, owned by INERIS, for certifying people in the field of functional safety.

INERIS as a certification body, is responsible for its development and maintenance.

The objectives are:

- 1. Recognition of the competence of the persons;
- 2. Raising awareness of the personnel of the company on his/her role, responsibilities and involvement in the management of the safety instrumented systems, in particular in application of the regulation on industrial classified installations;
- 3. Harmonization of functional safety training;
- 4. Transfer of the necessary knowledge to the users for a good use of the materials certified according to the standards relative to functional safety or qualified by a previous use;
- 5. Development of the ability to contribute to the implementation and compliance of the functional safety management system (hardware, software, installation, operation, test, inspection, repair, verification, validation, evaluation, organization, ...);
- 6. Improvement of the functional safety of the SIS controlling the risks related to the processes.

This document constitutes the Quali-SIL certification reference.

2. FIELD OF APPLICATION

Quali-SIL is intended for persons, services or organizations involved in the activities of the safety life cycle of a SIS as defined by IEC 61511 [3], and addresses the competence needed to conduct the activities for which they are responsible.

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Quali-SIL leads to the emission of an individual certificate of competence when the certification requirements are met by a candidate.

3. RELATED DOCUMENTS

3.1. NORMATIVE REFERENCES

- [1] NF EN ISO 9000 collection.
- [2] NF EN ISO / IEC 17024 (September 2012): Conformity assessment General requirements for certification bodies carrying out certification of persons.
- [3] [3] IEC 61511: 2016 series: Functional safety Instrumented safety systems for the process industry sector.

3.2. REGULATION REFERENCES

- [4] Directive 2012/18 / EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances.
- [5] Arrêté du 29/09/05 relatif à l'évaluation et à la prise en compte de la probabilité d'occurrence, de la cinétique, de l'intensité des effets et de la gravité des conséquences des accidents potentiels dans les études de dangers des installations classées soumises à autorisation.
- [6] Arrêté du 4 octobre 2010 relatif à la prévention des risques accidentels au sein des installations classées pour la protection de l'environnement soumises à autorisation.
- [7] Arrêté du 26/05/14 relatif à la prévention des accidents majeurs dans les installations classées mentionnées à la section 9, chapitre V, titre ler du livre V du code de l'environnement.
- [8] Note de doctrine sur les mesures de maîtrise des risques instrumentées (MMRI). MEDDE/DGPR/BRTICP/2013295/PB/XS du 02 octobre 2013.
- [9] DT93 Guide méthodologique pour la gestion et la maîtrise du vieillissement des Mesures de Maîtrise des Risques Instrumentées (MMRI), UIC / UFIP, Juillet 2011.

3.3. INERIS QUALITY REFERENCES

- [10] M002: Quality manual.
- [11] Charter of ethics.
- [12] PR0861: General rules of the certification activity.

- [13] PR0864: General Functioning of Certification Committees.
- [14] DI1292: Independence and impartiality in the field of certification.

3.4. DOCUMENTATION QUALI-SIL

- [15] Quali-SIL pre-requisite form "Functional Safety Engineer".
- [16] Quali-SIL pre-requisite form "in charge of Design, Installation or Maintenance of SIS".
- [17] Quali-SIL pre-requisite form "responsible for Installation or Maintenance of SIS".
- [18] Quali-SIL pre-requisite form "Operation Manager".
- [19] Quali-SIL pre-requisite form "Maintenance Electrician".
- [20] Quali-SIL "Certificate renewal" pre-requisite form.
- [21] IM1803AB: Quali-SIL Certificate Model.

4. DEFINITIONS AND ABBREVIATIONS

4.1. DEFINITIONS

4.1.1 Quali-SIL certification process

Activities by which INERIS determines that a person meets the certification requirements.

4.1.2 Quali-SIL certification requirements

All requirements specified in this document.

4.1.3 Reference framework Owner

INERIS owns the Quali-SIL certification reference system. It is responsible for its development and maintenance. As a certification body, it is the only entity that can evaluate candidates (4.1.9) and make the decision on certification, renewal, extension, suspension and withdrawal.

4.1.4 Organization entitled to do training

Organization that provides training in functional safety (4.1.17) based on the Quali-SIL standard and is bound to INERIS by a convention.

4.1.5 Evaluation

Activity to ensure that the candidate (4.1.9) meets the Quali-SIL certification requirements

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4.1.6 Examination

Provisions that are part of the assessment (4.1.5), to measure the competence of a candidate.

4.1.7 Certificate of Competence

INERIS issues a certificate of competence to the candidate (4.1.9) stating that he has met the certification requirements (4.1.2) and that he is able to put into practice the knowledge of the IEC 61511 standard and the know-how acquired during the training he has followed.

4.1.8 Applicant

The applicant designates a person who has asked INERIS to evaluate his / her skills in order to obtain a certificate of competence (4.1.7).

4.1.9 Candidate

Applicant (4.1.8) who meets the specified prerequisites and who is admitted to the certification process.

4.1.10 Examiner

- Trainer certified by INERIS, qualified to lead an examination (4.1.6) and perform the scoring.
- Note : In special cases (for example, an examination organized abroad, for candidates who have not obtained the certification after the initial examination), the authorized training organization (4.1.4) may after approval of INERIS, entrust the mission of supervision of the examination to a person who is not a certified trainer. The authorized training organization is responsible for ensuring the safety of the examination material, for defining and implementing the confidentiality measures imposed on that person and for ensuring impartiality in order to prevent attempts to fraud. The scoring of the examination cannot be entrusted to a person who is not a certified trainer.

4.1.11 Evaluator

Personnel of the certification body who validates the pre-requisite requirements set by the standard and verifies the scores given by the examiners (4.1.10) in order to ensure consistency of results and fairness between candidates (4.1. 9). He proposes the admission or the non-admission of the candidate to the person in charge of the decision of certification.

4.1.12 Appeal

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Request from an applicant (4.1.8), a candidate (4.1.9) or a certified person to reconsider any decision taken by INERIS concerning Quali-SIL certification.

4.1.13 Complaint

Expression of dissatisfaction, other than an appeal (4.1.12), issued by a person or organization, to INERIS, relating to its activities or to the activities of a certified person, to which an answer is expected.

4.1.14 Interested party

Person, group or organization concerned by the performance of a certified person or the activities of INERIS relating to functional safety (4.1.17).

4.1.15 Training materials

Set of Quali-SIL documents developed in collaboration with the authorized training organizations, used by the trainers to animate the sessions and some of which is given to the trainees. It can comprise, the module dashboard, the animation support, the exercises and their correction, the glossary, the videos and all documents deemed relevant by the Trainers Working Group.

4.1.16 Examination material

Quali-SIL documents used during the exam. It includes the evaluation questionnaire.

4.1.17 Functional safety

A subset of the overall process safety, which depends on the proper functioning of the safety instrumented system (SIS) and other layers of protection.

4.1.18 SIS safety lifecycle

Activities required for the implementation of Safety Instrumented Functions (SIF), occurring over a period, which begins at the design phase of a project and ends when all SIF are no longer available for use.

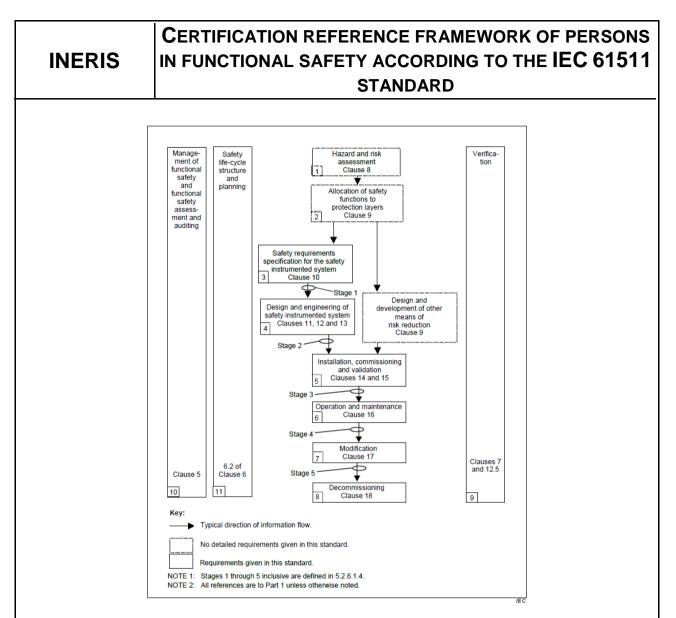


Figure 1 : Phases of the SIS safety lifecycle (extracted from IEC 61511 [3]).

4.1.19 Safety Instrumented System (SIS)

Instrumented system used to implement one or more SIF (4.1.20).

4.1.20 Safety Instrumented Function (SIF)

Function to be performed integrating the taking of information by an instrument (sensor, detector), intended to ensure or maintain a state of safety of the process, with respect to a specified hazardous event.

4.1.21 Safety Integrity

Probability that a safety-related system satisfactorily performs the required safety functions under all specified conditions and within a specified period.

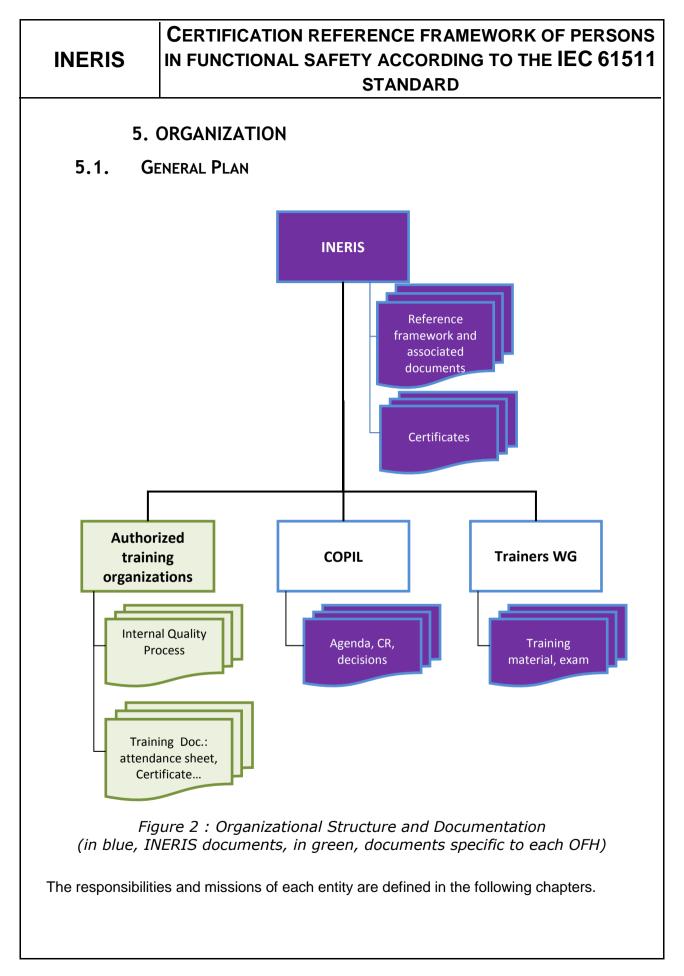
4.1.22 SIL : Safety Integrity Level

Discrete level (among four possible) to specify the safety integrity requirements of the safety functions (4.1.20) to be allocated to the safety instrumented systems (4.1.19). SIL 4 is related to the highest level of safety integrity; SIL 1 is related to the lowest.

4.2. ABBREVIATIONS

- CIM : Design, Installation or Maintenance of SIS (Conception Installation ou Maintenance de SIS)
- COPIL : Steering Committee (Comité de pilotage)
- ELEC : Maintenance electrician acting on SIS (Electricien de maintenance intervenant sur des SIS)
- EXP : Plant operator (Exploitant)
- IM : Installation or Maintenance of SIS (Installation ou Maintenance de SIS)
- ING : Functional Safety Engineer (Ingénieur en sécurité fonctionnelle)
- OFH : Authorized Training Organization (Organisme de Formation Habilité)
- QCM : Multiple choice question (Question à Choix Multiple)
- QO : Open Question (Question Ouverte)
- SIF : Safety Instrumented Function
- SIS : Safety Instrumented System

WG : Working group



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5.2. CERTIFICATION BODY

5.2.1. Generality

The organization and general functioning of INERIS are described in its quality documentation [10].

The general rules of the certification activity, applicable to the Quali-SIL reference system, are defined in procedures PR0861 [12] and PR0864 [13].

In addition, this reference document has been developed in accordance with standard NF EN ISO / IEC 17024 [2]. It thus ensures:

- impartiality concerning applicants and candidates,
- the competence of the stakeholders in the certification process,
- the associated responsibilities,
- transparency on the certification process,
- confidentiality of information collected during the process,
- the handling of calls and complaints.

5.2.2. Responsibilities of INERIS

INERIS owns the specific Quali-SIL certification system. As such:

- *it develops and maintains the reference system in order to achieve the objectives mentioned in the previous chapter;*
- *it is responsible for leading and chairing Quali-SIL bodies (COPIL and trainers WG);*
- it is the responsible for the documentation that it develops alone or with the Quali-SIL authorities;
- *it ensures compliance of all stakeholders with the reference framework;*
- *it impartially makes the decisions relating to the certification of person (grant, maintenance, renewal, extension, suspension and withdrawal);*
- it emits Quali-SIL certificates and manages them;
- it ensures the information of the stakeholders, through the provision of the reference framwork and the publication of the list of valid certificates in accordance with the rules of confidentiality;
- *it maintains an information page on the Quali-SIL scheme on its website.*

5.3. STEERING COMMITTEE

The steering committee (COPIL) is a structure created by INERIS to ensure the impartiality of the certification and to control the smooth running of the process.

The general operating rules defined in procedure PR0864 [12] apply.

5.3.1. <u>Missions</u>

The missions of COPIL are:

- to approve the certification reference scheme;
- to ensure that it is properly applied;
- to give an opinion on:
 - the integration of a new training organization in the scheme,
 - new applications of trainer,
 - tariff changes proposed by INERIS,
 - the adequacy of certifications to needs,
 - the handling of all litigation cases on any problem related to certification,
 - the handling of appeals and complaints after INERIS review of the answers provided;
- to propose evolutions of the reference framework, including training modules, according to the needs of SIS users (pedagogical rollout, content, timing, exercises, exams ...).

INERIS informs the COPIL on the activity of the past year (functioning of the bodies, issue of certificates ...).

The COPIL can be associated with actions related to functional safety (publication on the reference system, participation in an event ...).

5.3.2. Composition

The members of the committee are legal persons, appointed for a period of 3 years renewable. A natural person can only represent a legal person.

The composition of the committee respects a balanced representation of the different parties involved. It is composed of people with recognized functional safety skills or who manage a professional training activity, divided into four colleges:

- representatives of the certification body,
- end-users of SIS,
- authorized training organizations,
- authorities.

The COPIL is chaired by the Certification Manager or a person who is delegated and led by a member of the Certification Department. They are members of the committee in the first college.

The list of COPIL members is provided and updated in the minutes of the meeting.

With the agreement of the president, persons not pertaining to the COPIL may be invited to meetings but have no decision-making power.

5.3.3. Operation

The COPIL meets at least once a year. Between two meetings, a formal consultation can be initiated with the appropriate means (conference call, Skype, e-mail ...).

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COPIL decisions are taken according to the rules defined in PR0864 [12]. All the persons intervening in the committee (full or invited members) are bound to the professional secrecy and cannot communicate the documents exchanged within the COPIL without a prior agreement from INERIS.

5.4. TRAINING ORGANIZATION

5.4.1. Entry into the scheme

A training organization wishing to deliver training as part of the Quali-SIL certification scheme, must send a motivated request to INERIS, which, after study, relays it to the COPIL for opinion.

The decision is communicated to the candidate training organization. It can concern all or part of the training modules.

In the event of a favorable decision, the authorized training organization undertakes to:

- comply with the requirements of the reference system,
- contribute to the promotion of Quali-SIL,
- participate actively in the development of all training materials (materials, exercises, documentation, etc.) as part of the work of the Trainers WG,
- use the training material only for sessions that are part of the certification scheme (at least 80% of the trainees in the session must be candidates for Quali-SIL certification),
- apply established rates,
- not be involved in a functional safety certification scheme for the process industry, other than Quali-SIL.

An agreement established between the training organization and INERIS defines the specific provisions applicable.

5.4.2. Trainers

Authorized training organizations may only organize training with certified trainers.

INERIS certifies the trainers according to the process defined in chapter 6, on the basis of their technical skills and their organizational and operational capacity to provide training within the authorized organizations.

The persons concerned must :

- take a Quali-SIL training module "Functional Safety Engineer" organized by a training organization other than that of the applicant,
- obtain a minimum score of 85% of correct answers to the exam,
- have completed a minimum of 5 training sessions in the field of industrial safety (risk analysis, hazard study, hazardous phenomena, process safety ...),
- have several years of experience in the field of functional safety (practical experience).

Trainer certification can be extended to all or some of the training modules.

The COPIL is informed for opinion, new applications.

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Certified trainers may only deliver training on behalf of authorized training organizations. They commit themselves to contribute to the development of the training and examination materials by participating in the trainers' working group and the promotion of Quali-SIL.

Trainers without a training activity for a period of 24 months effectively lose their status as certified trainers but retain their ING certificate until the expiry date.

In addition, OFHs organize a follow up of their trainers to assess their ability to carry out training. This follow-up relies, among other things, on the end-of-training evaluations, that the OFH must make available to INERIS.

5.4.3. Audit by the certification body

INERIS can audit the OFH quality process for the activities related to this reference system. In this context, it can request any document to ensure the proper application of these standards. INERIS can also request to attend a training session.

5.4.4. Leaving the scheme

The procedures for leaving the scheme are defined in the agreement between the authorized training organization and INERIS.

Non-exhaustively, INERIS may consider as failure to fulfill the obligations of the authorized training organization, any failure to respect a requirement mentioned in the previous chapter or a clause in the agreement, or the absence of Quali-SIL training activity for a period of two consecutive years.

When the withdrawal from the scheme is effective, the training organization and its trainers, unless they intervene on behalf of other authorized training organizations, can no longer use the training material.

The COPIL is informed of the process and the reasons that motivated it. The COPIL may be asked for an opinion on the withdrawal process.

5.5. TRAINER'S WORKING GROUP

5.5.1. Missions

The working group (WG), led by INERIS, is responsible for:

- developing training materials according to needs, particularly those expressed by the COPIL,
- discussing the difficulties encountered during training and propose improvements to training materials and exams, both in technical and organizational terms,
- discussing technical topics related to functional safety and define common positions to be communicated in training (interpretation of the standard, good practices ...),
- contributing to the introduction of measures to ensure the fairness of candidates for the examination,
- sharing the information about training activity over the past and future period,

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 preparing the planning of inter-company training sessions for the following year based on previous results, in order to propose a global offer adapted to the demand (number of sessions, distribution in the year, geographical distribution).

5.5.2. Composition

The working group is composed of certified trainers. When an OFH has several trainers, a preferred contact person can be designated. However, other trainers of this OFH should attend at least one WG meeting per year and contribute to its work.

Each OFH must be represented within the WG. The lack of attendance or involvement of a trainer or OFH can lead to its exclusion from the scheme.

The Trainers WG may be open to representatives of entities involved in the COPIL or invited competent persons.

The WG meets as much as necessary on the initiative of INERIS.

INERIS

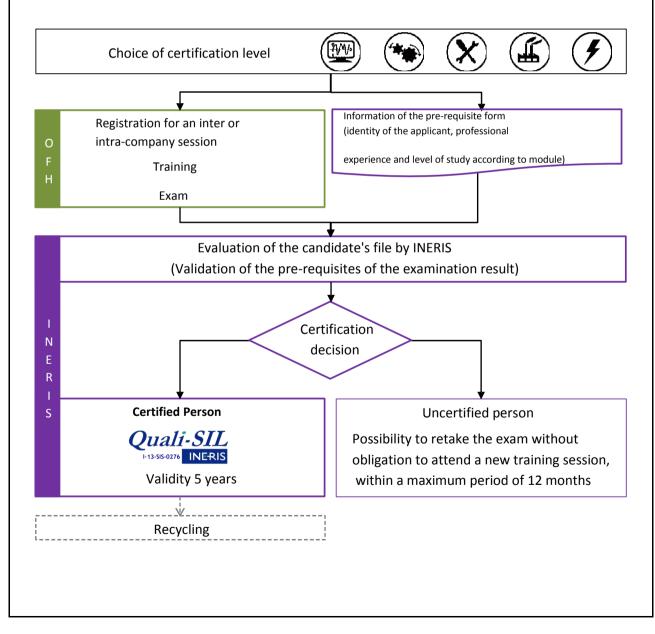
6. CERTIFICATION PROCESS

6.1. GENERAL PLAN

The certification process is used to analyze the aptitude and to attest the competence of a person to intervene in one of the activities of the SIS security lifecycle in accordance with IEC 61511: 2016 [3].

The certification process is shown below.

Figure 3 : Quali-SIL certification process :



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6.2. CHOICE OF CERTIFICATION LEVEL

The Quali-SIL certification scheme offers 5 levels for different professions involved in different activities of the safety life cycle of an SIS.

		TRAINING	Ехам
\frown	Functional Safety Engineer (ING)		
	Engineers or senior technicians with responsibilities in one of the phases of the safety lifecycle. Process safety engineers, design offices, consultants, project managers, engineers, SIS integrators, maintenance service managers, DREAL inspectors	4 days	75 QCM 25 QO 3h30
	Design, Installation or Maintenance Manager of SIS (CIM)		
	Senior technicians responsible for the design of SIS or ensuring the commissioning, maintenance, periodic testing or monitoring of SIS.	3 days	60 QCM 20 QO 2h30
	Installation or Maintenance Manager of SIS (IM)		
(\mathbf{X})	Technicians providing commissioning, maintenance, periodic testing or monitoring of SIS.	2 days	52 QCM 16 QO 2h00
	Operations Manager (EXP)		
	Team leaders who are responsible for a production unit, operators and draughtsmen.	1 day	26 QCM 8 QO 1h00
	Maintenance Electrician SIS (ELEC)		
F	Electricians working on SIS, persons responsible for electrical lockout.	1 day	26 QCM 8 QO 1h00

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The training period includes the exam organized at the end of the internship. However, for intra-company sessions, the OFH may propose a deferred examination outside this hourly volume. In order not to compromise fairness, the exam must be held the day after the practicum for single sessions or within a maximum of ten days in case of the grouping of candidates from several sessions.

A skills implementation module called Field Experience (FEx) is also proposed. It is accessible only to persons holding a valid Quali-SIL ING or CIM certificate, under the conditions defined below.

Quali-S		Quali-SIL	
ING module initial training CIM module Initial			
4 days, validity 5 yea	rs	3 days, validity 5 years	
	5 years	5 years	
Quali-SIL		Quali-SIL	
ING recycling module		CIM recycling module	
2 day	s, validity 5 years	2 days, validity 5 years	
max. 2 years	max. 5 years	max. 5 years max. 2 years	
Quali-SIL			
Field experience module ,			
	2 days, extension of the certificate for 5 years		

Figure 3 : Conditions of access to the Field Experience module.

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6.3. APPLICATION

This reference framework is accessible via the www.ineris.fr website to anyone wishing to apply for Quali-SIL certification.

The costs relative to the certification are communicated by the authorized training organization to any applicant. They are differentiated from training costs.

The certification requirements, including the pre-requisite form and the minimum admission score for the examination, are communicated to the applicant by the authorized training organization before enrolling in a training course. The latter judges of the acceptability of the application and can, in case of doubt about the applicant meeting the prerequisites, consult INERIS.

Prerequisite form [17 to 22] is specific to a certification level. It includes :

- the identity of the applicant,
- the justification of a minimum professional experience related to one or more activities in the safety life cycle of an SIS,
- the justification of educational level for the ING and CIM levels,
- the applicant's commitment to comply with the certification requirements and to provide the information necessary for the evaluation.

For the ING and CIM levels, it must be accompanied by a copy of the diplomas and a curriculum vitae. The set constitutes the pre-requisite file.

6.4. TRAINING AND EXAM

The authorized training organization organizes the training in accordance with its quality procedures and meeting the requirements of the present reference document.

Training sessions may be open to trainees who are not candidates to the certification process but up to a limit of 20% of registrants.

The OFH is authorized to affix its logo in addition to the Quali-SIL logo on the training material.

The delivery of the training is entrusted to a certified trainer who also performs the mission of examiner.

In order to ensure the fairness of the exam, the trainer:

- uses up-to-date training material made available by INERIS,
- may in a limited way not present certain documents or parts of documents provided that they are not indispensable to answer the questions of the examination,
- ensures, at all times, the security of examination material,
- supervises the examination,
- resolves as soon as possible and to the extent possible, any problem related to the evaluation of the candidates that occurred before, during or after the examination and informs INERIS,
- corrects the exams by referring as much as necessary to the answer sheet provided by INERIS and mentions an assessment if it deems it necessary,
- ensure the completeness of the candidates' pre-requisite file.

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At the end of the training, the OFH transmits within a maximum period of one month to the person in charge of the evaluation of the candidates to the INERIS:

- the attendance sheet signed by trainees (candidates and potential non-candidates for the certification process),
- the pre-requisite file and the corrected exam form for each candidate.

The OFH must limit the distribution of training material to trainees and persons involved in the organization of sessions. The restrictions of use must be specified. In addition, electronic distribution outside the authorized training organization should be limited as much as possible and if necessary, the files should be protected.

Training for students involved in a National Education curriculum is dealt with under a specific agreement.

6.5. EVALUATION

The evaluation is conducted in accordance with the rules defined in the quality documents of the Certification Department of INERIS [11 and 13].

The person conducting the evaluation is designated within this department. He/she can be made available to an OFH as a trainer. He/she cannot make a certification decision on the files he/she has evaluated.

The assessment is based on the pre-requisite file and the candidate examination form.

The evaluator checks the trainer's rating and corrects it as needed to ensure fairness among the candidates. He/she proposes the admission or the non-admission of the candidate to the certification according to the satisfaction of the prerequisites and the final score which must be greater than or equal to 75%.

If the prerequisites are met, and the final score is less than 75%, a certificate may be issued to the candidate after the motivated opinion of the trainer, under the following conditions:

- If the final mark is between 70% and 75% and the evaluator's examination of the errors does not show any major misunderstanding, the evaluator may propose the admission of the candidate to the level presented;
- If the above conditions cannot be fulfilled and the final mark is 75% or more for specific questions at a level of certification lower than the one presented (CIM questions of the ING exam or IM questions of the CIM exam)), the evaluator may propose the admission of the candidate to the lower level.

These conditions are applicable as part of an initial certification or renewal.

In both cases, increased vigilance will be placed on the files at the time of the certification decision.

The candidate retains the possibility to retake the examination of the level presented according to the conditions defined in the following chapter.

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6.6. CERTIFICATION DECISION

In accordance with INERIS rules, the certification decision can only be taken by a person who has a delegation from the General Director and has not participated in the evaluation or training of the candidate.

The decision is formalized:

- by issuing a certificate of competence for a period of validity of 5 years,
- or by issuing a statement presenting the score obtained at the end of the evaluation.

In both cases, the document issued by INERIS is issued to the candidate through the authorized training organization, within a maximum period of two months.

Fifteen days later, INERIS also sends certified individuals who have submitted an e-mail address in their pre-requisite file, a personalized Quali-SIL logo indicating their certificate number.

If the evaluation process failed to deliver the certificate, either because the prerequisites were not met, or because the score was insufficient, the candidate can:

- complete the prerequisites and submit a completed form within a maximum of two years following the date of the exam; if the supplements are considered admissible by the INERIS, a certificate is issued with a validity fixed to 5 years from the date of examination;
- register for a new examination with an OFH within a maximum of 12 months, without having to re-attend a training session; nevertheless, the OFH advises the applicant on the need or not to follow the training again according to the results of the initial examination; if the candidate does not attend a new training session, he is liable only for certification fees; the certification decision is taken in accordance with the requirements of Chapter 6.5.

6.7. SUSPENSION, REVOCATION

Certification of a person may be suspended in the following cases:

- request of the holder,
- non-renewal within the deadlines (see chapter 6.8),
- report of misuse of the certificate (see chapter 7.5),
- complaint received by INERIS (see chapter 7.6).

Certification of a person may be withdrawn in the following cases:

- request of the holder,
- non-renewal within the deadlines (see chapter 6.8),
- Inability of the person to resolve within the specified time the problems that led to the suspension (see Chapters 7.5 and 7.6).

The withdrawal sanctions are enforceable upon receipt of the letter from INERIS, by registered mail with acknowledgment of receipt sent to the holder notifying the decision.

The holder concerned by the withdrawal must cease to state his qualification and make any provision to remove the mention of his qualification.

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6.8. EXTENSION OF CERTIFICATION

Quali-SIL certificates are valid for 5 years. To ensure the maintenance of competence, the scheme provides for recycling before the period has expired. It differs according to the level of certification :

- for all certificates, the candidate for renewal must complete a form [22] to justify the continuity of his activity and his professional experience in relation to one of the stages of the safety life cycle of an SIS;
- for ING and CIM certificates, the candidate for renewal must take part in a joint training session at both levels (2 days) and pass a specific examination at each level (ING: 2 h, 52 QCM and 16 QO, CIM: 2h)., 39 QCM and 13 QO);
- For IM, EXP and ELEC certificates, the candidate for renewal must take an initial training session and repeat the initial examination.

The certification process is identical to that described above. The certificate is issued with a new validity date set at 5 years from the date of examination.

For candidates for ING and CIM renewal a period of 3 months is allowed from the expiry date of the certificate, for the applicant to register for a planned recycling session within 6 months from the date of end of validity of the certificate. This tolerance is subject to prior acceptance by INERIS. During this period, his certificate is suspended. After 6 months or if the described procedure has not been respected, the certificate is withdrawn. The applicant must then follow the initial certification process to qualify for a new certificate.

For trainers, the renewal of the certificate for a period of 5 years is conditional on:

- constant participation in the meetings and work of the trainers WG,
- and a minimum animation activity of one session over the last 12 months or two sessions over the last 24 months.

Failing this, the trainer is subject to the same rules as an ING-certified person for the renewal of his certificate.

In the event of significant changes in standard or regulations, INERIS may have to suspend valid certificates and set new requirements for maintaining certification. The decision on early recycling is taken after consulting the COPIL.

Similarly, INERIS may decide to extend exceptionally the validity of certificates when they expire in a period of finalization of normative evolution, provided that the candidate meets the requirements defined on this occasion. The decision is also taken after the opinion of COPIL.

7. CERTIFICATION MANAGEMENT

7.1. IMPARTIALITY, CONFIDENTIALITY AND ANONYMITY

The Quali-SIL scheme is part of INERIS certification activities and is implemented in accordance with the associated impartiality rules [11 and 14].

The confidentiality of the information collected by INERIS during its certification activities is covered by the general provisions in force at INERIS.

All persons involved in certification are bound by professional secrecy. The files created by the applicants and the evaluation reports are confidential.

7.2. REGISTRATIONS OF CANDIDATES AND CERTIFIED PERSONS

The certification file is composed of all documents leading to certification and consists mainly of the following elements in paper or electronic format:

- the application for certification,
- all documents provided by the applicant (pre-requisite file),
- attestation of attendance to the training sessions,
- the results of the evaluation,
- a copy of the original certificate,
- any other document that is considered useful to keep.

All records related to the certification are archived in accordance with the general provisions of INERIS.

Data extracted from these documents are compiled in a certification register in the form of a computer database in order to facilitate the management of information relating to the persons and organizations involved during the certification process.

7.3. FORM AND USE OF CERTIFICATES

The certificate is issued in French by INERIS. It can also on request, be provided in English language.

The IM1803 form [21] is used to issue the certificates of the different levels.

The certificate is issued in one original copy.

The holder commits by filling the pre-requisites form [15 to 20] to:

- comply with the applicable provisions of the Quali-SIL certification scheme;
- make any claim only in relation to the scope of certification granted by each level;
- not to use the certification in a way that could damage the reputation of INERIS and make no statement concerning the certification that INERIS may deem misleading or unauthorized;
- cease upon suspension or withdrawal any reference to the certificate and the brand Quali-SIL;
- not to use the certificate in a misleading way, especially by omitting the level of certification obtained.

7.4. PUBLIC INFORMATION

In the respect of the confidentiality which expressed by the candidates, INERIS makes available and updates every six months on its website www.ineris.fr, the list of certificates issued. This list gives at least the number and validity date of the certificate.

Upon request, INERIS provides information on the validity of a certificate and the identity of the person to whom it has been issued.

7.5. RULES FOR THE USE OF THE QUALI-SIL TRADEMARK AND LOGO

The Quali-SIL brand is registered with the National Institute of Industrial Property (INPI).

OFH are authorized to use the trademark for their training and promotion activities of the certification scheme. The Quali-SIL logo must appear on the training and examination materials, the documents describing the training courses and all promotional documents.

The withdrawal of an OFH from the scheme interrupts the authorization to use the Quali-SIL brand.

Certified persons may use the Quali-SIL personalized logo bearing the certificate number, on professional documents (business card, e-mail signature, etc.) only during the period of validity of the certificate.

7.6. APPEALS AND COMPLAINTS

Calls for certification decisions relating to candidates or for activities governed by these standards are handled by INERIS (1st level) and then COPIL (2nd level).

Any complaint relating to a certified person entails a notification of this person and can lead, after study of its admissibility by INERIS with the interested parties, to a suspension of the certification until the final decision, which is taken about the ability of the person to resolve within the specified time the problems that led to the suspension.

The COPIL is informed of any call or complaint received by INERIS and related actions.

7.7. RESPONSIBILITY OF THE APPLICANT

It is the responsibility of the applicant and his company to ensure that he has specific expertise related to his field of activity. As a result, the owner and his company remain liable for all accidents related to their activities.

7.8. INSURANCE

INERIS's certification activities are covered by third-party liability insurance.