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CONTENTS

1.	Field of application	2
2.	Reference documents	2
3.	Definitions	2
4.	certification scheme	3
5.	Certification body	3
5.1.	General provisions	3
5.2.	Organization	3
5.2.1.	Impartiality and independence	3
5.3.	General operation	3
5.4.	Sub-contracting	3
5.5.	Quality system	3
5.6.	Conditions and procedures for granting, maintaining, extending, reducing, terminating, suspending, withdrawn and denial of the certification	3
5.7.	Internal audits and management reviews	6
5.8.	Documentation	6
5.9.	Records	6
5.10.	Confidentiality	6
6.	Personnel of the certification body	6
7.	Change in the requirements for certification	6
8.	Appeals and complaints	6
9.	Application for certification	6
9.1.	Information on the procedure	6
9.2.	The application	7
10.	Preparation of the assessment	7
11.	Assessment	7
11.1.	evaluation according to module B – Type examination	7
11.2.	Evaluation according to module C2 - Conformity to the type on the basis of internal production checks and supervised product checks at random intervals	7
11.3.	Evaluation according to modules D, or E - Conformity to type on basis of quality assurance of production or product	8
11.3.1.	Frequency of renewal audits	8
11.3.2.	Duration of an audit	8
11.4.	Evaluation according to module G - Compliance on the basis of unit verification	9
12.	Assessment report	9
12.1.	Rules for assessment reports (tests or audit)	9
13.	Certification decision	10
14.	SURVEILLANCE	10
15.	Use of the licenses, certificates and compliance marks	10
16.	Complaints to the supplier	10

1. FIELD OF APPLICATION

This document establishes the specific rules for certification of pyrotechnical articles in the frame of the Pyrotechnic Articles (Safety) Regulations 2015 (UK Statutory Instruments 2015, No. 1553). It completes the document "General rules concerning the product certification".

2. REFERENCE DOCUMENTS

The requirements targeted by the present document are defined by:

- The Pyrotechnic Articles (Safety) Regulations 2015 (UK Statutory Instruments 2015, No. 1553)
- The Product Safety and Metrology etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019 No 696
- UK Guidance - GB Markets:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/950114/Guide-to-pyrotechnics-regulations-2015-tp.pdf
- the standard series of BS EN 15947 standards, concerning the fireworks of categories F1, F2 and F3,
- the standard series of BS EN 16261 standards, concerning the fireworks of category 4,
- the standard series of BS EN 16256 standards, concerning the theatrical pyrotechnic articles,
- the standard series of BS EN ISO 14451 standards, concerning pyrotechnic articles for vehicles,
- the standard series of BS EN 16263 standards, concerning other pyrotechnic articles,
- the BS EN 16264 standard concerning the cartridges for powder actuated tools,
- the BS EN 16265 standard concerning ignition devices.
- The following UKAS Guides:
 - o General Principles for the Assessment of Conformity Assessment Bodies by the United Kingdom Accreditation Service, Ed2, July 2020
 - o UKAS Policy and General Guidance on the Implementation and Management of Flexible Scopes of Accreditation, Ed1, October 2019
 - o Accreditation Logo & Symbols. The National Accreditation Logo and Symbols: conditions for use by UKAS and UKAS accredited organisations. Ed1, July 2018
 - o Accreditation for the Purposes of Appointment as an Approved Body under the UKCA System, Ed1, December 2020

3. DEFINITIONS

The general provisions relating to the terminology are described either in the quality manual of INERIS or in the general rules of the activity for product certification. We recall hereafter a few definitions useful for understanding this document:

Approved body (AB):	a conformity assessment body which has been approved by the Secretary of State for conformity assessment and UKCA marking for the GB market. INERIS is the Approved Body number 0080 and the UKAS accredited certification body No 23472
Regulations:	This document refers to the Pyrotechnic Articles (Safety) Regulations 2015, UK Statutory Instruments 2015, No. 1553 as amended
Audit:	a systematic, independent and documented process with which records, statements of facts and other relevant information may be obtained and be evaluated in an objective way in order to determine to which extent the specified requirements are observed.
CERN:	Certification and Standardization Unit at INERIS.
Manufacturer:	Company holding a valid certification document (Type examination certificate, quality assurance notification, certificate of conformity, etc.).
Applicant:	Organisation (company, consultant, etc.) that, under the responsibility of the Manufacturer, carries out the steps relating to a product certification application, for this Manufacturer.
Certification scheme	Certification system related to specified products, to which the same specified requirements, specific rules and procedures apply. The certification scheme includes the procedures and specific rules of the Ineris (within the framework of the certification of products) which are the application of the directives and concerned texts. It refers to the statutory law and standards such as defined in the scope of accreditation of the available Ineris on www.cofrac.fr .

4. CERTIFICATION SCHEME

- PR-0861 “general rules concerning the product certification activity”
- PR-1093 “specific rules for certification of explosives for civil uses and of pyrotechnical articles for UKCA marking”
- The list of British Standards stated in §2
- Application of the Pyrotechnic Articles (Safety) Regulations 2015

5. CERTIFICATION BODY

5.1. GENERAL PROVISIONS

The general provisions are described in the general rules of certification. INERIS, through the CERN division, carries out its certification activity regarding pyrotechnic articles covered by the Regulations.

Within this scope, INERIS carries out, or makes carrying out under its responsibility, tests, audits or investigations with the exclusive purpose of evaluating characteristics and properties of the relevant products.

5.2. ORGANIZATION

5.2.1. IMPARTIALITY AND INDEPENDENCE

5.2.1.1. ETHICS

See the general rules of the activity for product certification.

5.2.1.2. STRATEGY AND POLICY

See the general rules concerning the product certification activity.

Additionally, INERIS applies an impartial and uniform pricing policy for carrying out its certification services in the fields of pyrotechnical articles, consisting in not favouring an applicant relatively to another.

Rates are based on the time required to perform certification services according to a fee schedule (DI-1196). However, because of the wide variety and complexity of the products to be evaluated, the number of tests to be performed, and the elements submitted by the Applicant for certification (previous test results, similarity with products that have already been certified, etc.), it is not always possible to set tariffs *a priori*.

5.2.1.3. CERTIFICATION DECISIONS

See the general rules of the activity for product certification.

5.3. GENERAL OPERATION

The general operation is the same as that described in the general rules concerning the product certification activity (PR-0861). The CERN division has documents enabling it to monitor its evaluation activities (dashboards, planning of audits carried out and upcoming ones, lists of certified products, etc.). INERIS staff assigned to the evaluation tasks have the qualifications, impartiality and independence needed to carry out these tasks.

The assessment is made regarding the essential safety requirements reported respectively in the Regulations. Compliance is assessed either:

- through the series of BS EN 15947, BS EN 16261, BS EN 16256 and BS EN ISO 14451 standards, and BS EN 16263, BS EN 16264 and BS EN 16265 standards,
- by any other standards or test methods recognized as being able to provide proof of compliance.

5.4. SUB-CONTRACTING

There is no outsourcing of evaluations in the fields of certification of pyrotechnic articles.

As a reminder of the general rules concerning the product certification activity:

the tests carried out by the client are not considered to be subcontracted because the CERN division staff participate in these tests or define the means, persons and the procedures to be applied and check the conformity of these tests during periodic (frequency determined for each technical field) or unannounced audits.

5.5. QUALITY SYSTEM

See the general rules of the activity for product certification.

5.6. CONDITIONS AND PROCEDURES FOR GRANTING, MAINTAINING, EXTENDING, REDUCING, TERMINATING, SUSPENDING, WITHDRAWN AND DENIAL OF THE CERTIFICATION.

See the general rules of the activity for product certification and the following flowcharts.

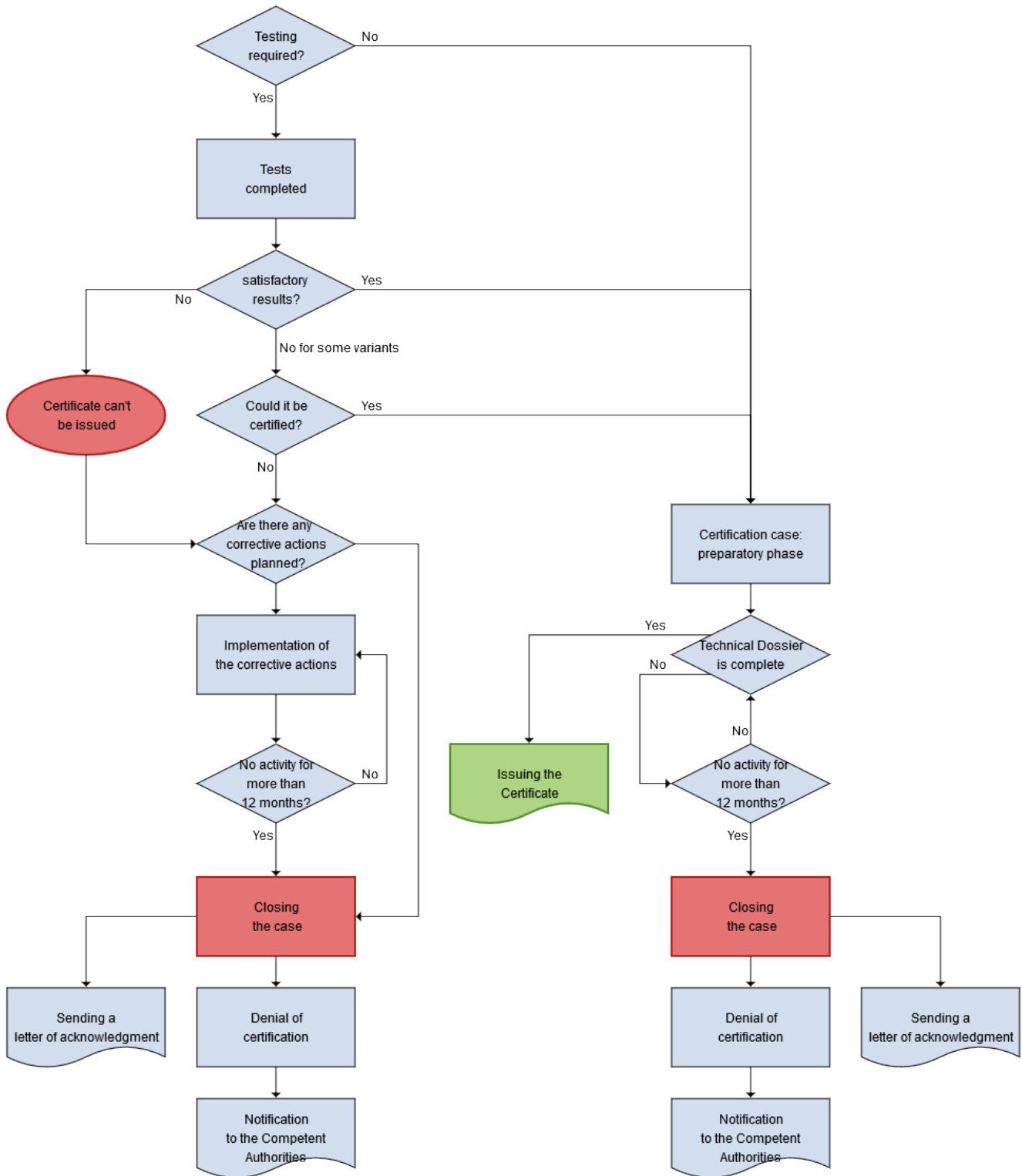


Figure 1 : Flowchart for the Type Examination (Module B)

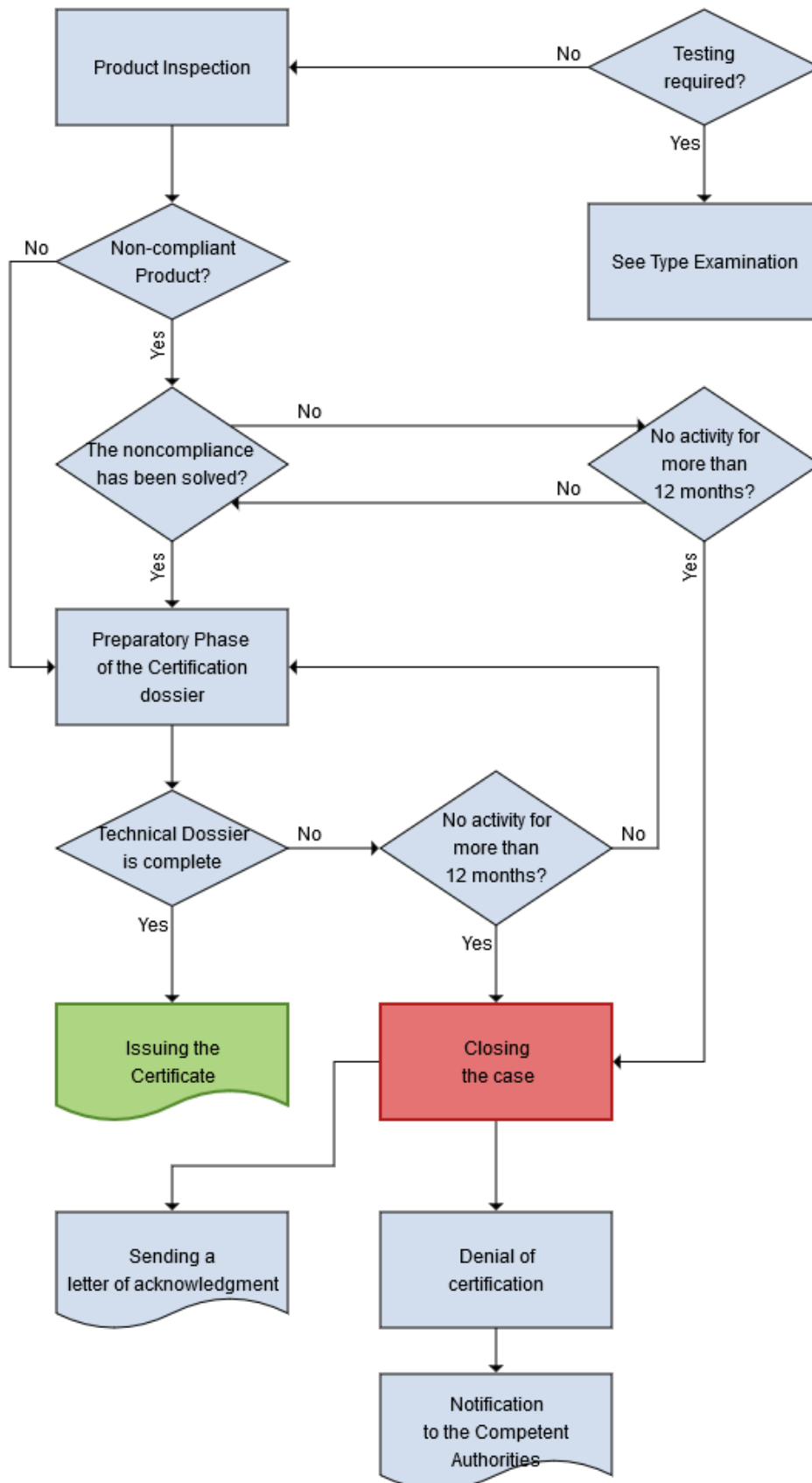


Figure 2: Flowchart for the Module C2 and G

5.7. INTERNAL AUDITS AND MANAGEMENT REVIEWS

See the general rules of the activity for product certification.

5.8. DOCUMENTATION

See the general rules of the activity for product certification.

5.9. RECORDS

See the general rules of the activity for product certification.

5.10. CONFIDENTIALITY

See the general rules of the activity for product certification.

6. PERSONNEL OF THE CERTIFICATION BODY

See the general rules of the activity for product certification.

7. CHANGE IN THE REQUIREMENTS FOR CERTIFICATION

See the general rules of the activity for product certification.

8. APPEALS AND COMPLAINTS

See the general rules of the activity for product certification.

For this present certification scheme:

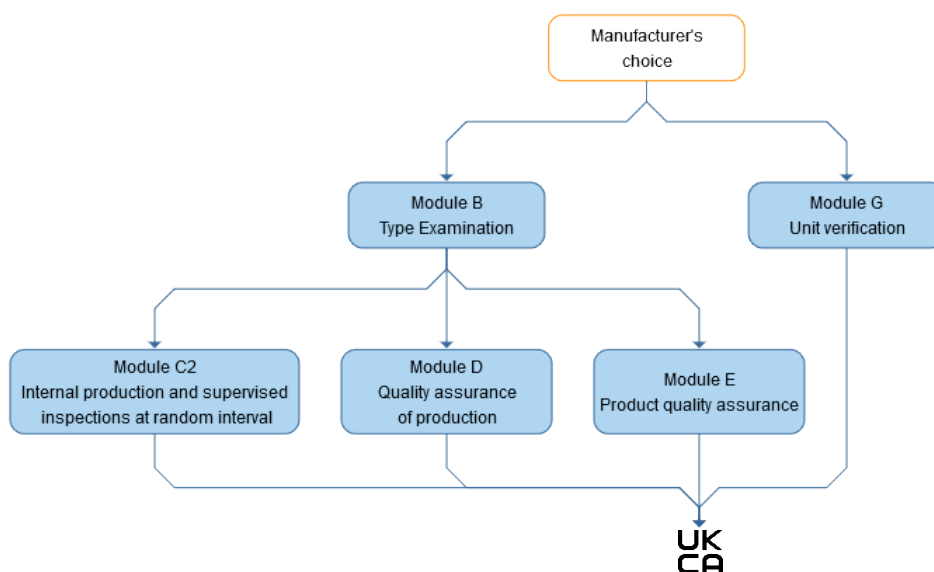
- the Second Level of appeal is made to the Certification Committee “Explosive”. This Certification Committee deals also with cases related to the EU directives 2013/29/EU and 2014/28/EU.
- the Third Level of appeal corresponds to UK competent authorities.

If the disputes come from a UK user or from the UK Government, these should be settled in conformity with English law.

9. APPLICATION FOR CERTIFICATION

9.1. INFORMATION ON THE PROCEDURE

For certifying pyrotechnical articles, INERIS applies the procedure for evaluation chosen by the manufacturer among one of those described in the following scheme:



For pyrotechnic articles, modules B, C2, D, E and G are described in the Regulations.

9.2. THE APPLICATION

The application for certification must be documented, failure to do so will be considered inadmissible. This application should at least include the following items:

- the names and addresses of the Applicant and the Manufacturer (future holder of the certification),
- the name and address of the representative in Europe (if necessary),
- the names and addresses of the manufacturing sites,
- the trade names and references of the products and variants to be certified,
- the elements used to define the type of product to be certified (plans, data sheets, etc.),
- a statement from the applicant stating that the application has not been introduced to another AB
- a signed commitment from the manufacturer on the acceptance of general and specific rules.

The certification request may be made by the Manufacturer directly or by a third party company (consultant, other) who will be identified as the Applicant. A certification application form (Ineris - 205395 - 2720937) is available on the INERIS website.

10. PREPARATION OF THE ASSESSMENT

Upon receipt of a certification application, a project manager from the relevant division verifies the eligibility of the application and prepares a technical and commercial certification service offer.

The Applicant of certification may, if necessary, request INERIS to obtain explanations on the content of the Regulations. The evaluation begins only when the project manager from the relevant division judges that the request is valid, then the contract between the certification Applicant and INERIS is established.

11. ASSESSMENT

11.1. EVALUATION ACCORDING TO MODULE B – TYPE EXAMINATION

The evaluation according to module B consists of an examination of the compliance of a product or a family of products with the essential safety requirements referred to the SCHEDULE 2A of the Regulations. The term "family" defines a set of products of similar design, which are certified under the same registration number.

The examination is carried out with a view to an initial certification of a new product, or an extension of the certification, which is generally required to modify the technical characteristics of a product that has already been certified or to add a new product (variant) to a family that has already been certified.

In both cases, the assessment shall cover the technical design documents of the products to be certified and the results of type tests carried out according to the standards for pyrotechnic articles or any other standards or methods of tests recognized as being able to provide proof of compliance with essential safety requirements.

The type tests are carried out on a representative sample of the planned production:

- either by the INERIS laboratory,
- or by the Manufacturer, in the presence of an INERIS representative,
- or by the Manufacturer, without the presence of INERIS, under conditions:
 - o an application for a certification extension only, due to a minor change in the design of a product that has already been certified, or to add a variant to an already certified family;
 - o the Manufacturer's type test methods have been evaluated in a certification audit following a D or E module.

A development is considered "minor" when it is not likely to call into question the conformity of the certified type with an essential safety requirement (for example: modification/addition/deletion of a non-critical mechanical part, variation/decrease in the mass of active ingredient within the limits of the certified family, etc.).

After an evaluation according to module B, a Type examination report is issued, together with a Type examination certificate in the case of a favourable certification decision.

11.2. EVALUATION ACCORDING TO MODULE C2 - CONFORMITY TO THE TYPE ON THE BASIS OF INTERNAL PRODUCTION CHECKS AND SUPERVISED PRODUCT CHECKS AT RANDOM INTERVALS

The evaluation according to module C2 consists of a Manufacturer's inspection visit, during which an appropriate sample of finished products - the type of which has been certified in advance according to module B - is taken on site. This visit includes:

- an evaluation of the conditions of manufacture and the internal and external traceability of the products,
- a UKCA marking check and checks on the declarations of conformity issued by the Manufacturer,
- a check of a sample of finished products by INERIS.

Samples are examined and tested according to standards and/or equivalent tests, either by an INERIS inspector or, if this is not possible on the Manufacturer's site, by the INERIS laboratory, after the samples have been taken by the INERIS inspector.

After an evaluation according to module C2, a production control report is issued, listing the measures taken by the manufacturer to ensure conformity of production, the sampling procedure applied and the result of the production examination of the samples.

11.3. EVALUATION ACCORDING TO MODULES D, OR E - CONFORMITY TO TYPE ON BASIS OF QUALITY ASSURANCE OF PRODUCTION OR PRODUCT

Assessments according to module D or E consist of periodic audits of manufacturing sites identified by the Manufacturer. There are four types of audits:

- the initial audit.
- the surveillance audit, which is scheduled one year after the initial audit.
- the renewal audit, which is scheduled periodically (see below) according to the effectiveness of the quality system put in place to meet the requirements of module D or E of one or the other of the Regulations.
- the additional (or unexpected) audit, which can be carried out at any time at the initiative of INERIS as soon as it judges (for example after having been informed of significant changes in the manufacturing or control procedures, or if there is doubt about the conformity of a product put on the market) that compliance with the requirements of one or the other of the Regulations must be verified before the date of the next planned audit.

After an evaluation according to module D or E, an audit report and, in the case of a favourable certification decision, a notification of quality assurance, depending on the module selected, are issued.

11.3.1. FREQUENCY OF RENEWAL AUDITS

The frequency of the renewal audits is at most:

- 4 years as part of the application of a module D according to the Regulations for a Manufacturer of pyrotechnic articles for vehicles;
- 2 years in all other cases.

This frequency can be reduced depending on the changes in the Manufacturer's quality organization and/or the results obtained during previous evaluations. In the case of a multi-site audit of a Manufacturer, an audit programme for the different sites is drawn up, at the time of writing the certification service offer, over a maximum period of 3 years.

11.3.2. DURATION OF AN AUDIT

The duration of an initial audit is set at the time of writing the certification service offer, as it depends on the number of generic types that are produced and the complexity of the quality organization.

The duration of a surveillance audit is identical to that of the initial audit.

The duration of a renewal audit is set at:

- 1 day per manufacturing site, as part of the application of a D or E module;
- 1.5 days if an evaluation of type testing methods is planned in addition;

Depending on the module selected, the following points are addressed during each audit:

Module		Points addressed during the audit
D	E	(See the module sections in SCHEDULE 2A of the Regulations)
§ 2	§ 2	The Manufacturer applies an approved quality system for the design*, manufacturing**, final product inspection, and product testing (1)
§ 3.1	§ 3.1	Information on the manufacturing site and certified products (manufactured quantities).
§ 3.2	§ 3.2	Quality Management System (QMS).
§ 3.2 a)	§ 3.2 a)	Quality objectives, organization chart.
***	***	Specifications of the technical design of fireworks.
***	***	Procedure for the inspection and verification of firework design.
§ 3.2 b)	***	Procedures for manufacturing and inspecting products.
§ 3.2 c)	§ 3.2 b)	Examinations and tests that are performed before**, during** and after manufacture, and indication of the frequency.
§ 3.2 d)	§ 3.2 c)	Quality records, inspection reports, test and calibration data, personnel qualification reports.
§ 3.2 e)	§ 3.2 d)	The methods of monitoring the effective operation of the quality system.
§ 3.3	§ 3.3	Evaluation visit to the Manufacturer's facilities.
§ 3.4	§ 3.4	The Manufacturer shall undertake to fulfil the obligations arising from the quality system as approved and to maintain it so that it remains adequate and efficient.

§ 3.5	§ 3.5	Information to the AB of any proposed modification of the quality system.
§ 4	§ 4	Surveillance under the responsibility of the AB.
§ 5.1	§ 5.1	UKCA marking and identification of the AB.
§ 5.2	§ 5.2	Declaration of conformity for each product model.
§ 6	§ 6	Document archiving.

* Not applicable in the case of an audit according to module D or E.

** Not applicable in the case of an audit according to module E.

Note 1: the quality system of the Manufacturer may be approved by an accredited external body, or, failing that, by INERIS following a review of the existing procedures.

11.4. EVALUATION ACCORDING TO MODULE G - COMPLIANCE ON THE BASIS OF UNIT VERIFICATION

In the particular case of an evaluation according to module G, which only covers single copies of the product, INERIS examines the documentation provided by the Applicant for the product to be certified and, if necessary, performs the non-destructive tests according to the standards and/or equivalent tests, and/or organizes a visit to the manufacturing site to carry out conformity checks on the product.

Following an evaluation according to module G, a verification report is issued and, in the case of a favourable certification decision, a certificate of conformity for the checks and tests carried out.

12. ASSESSMENT REPORT

12.1. RULES FOR ASSESSMENT REPORTS (TESTS OR AUDIT)

See the general rules concerning the product certification activity.

The assessment reports differ according to the module(s) selected by the applicant. Four types of reports are distinguished:

1. The Type examination report (module B)

It corresponds to the selection of the module B associated with one of the modules C2, D, E or F. This type of report includes the description of the application, the description and the identification of the relevant product(s), the detail of the evaluation carried out under module B with reference to the test reports having been used for checking the compliance, and the reminder of the conclusions issued from the audit visits carried out at the manufacturer(s).

2. Production Control or Product Verification Report (module C2 or F)

It corresponds to the choice of module C2 or F associated with module B. This type of report includes the description of the manufacturing sites, the list of certified products covered by the inspection or verification visit, the evaluation of the manufacturing conditions of the products and procedures specific to the Regulations (marking, declaration of conformity and archiving), the sampling procedure and the result of product control tests.

3. The audit report (modules D or E)

It corresponds to the choice of one of the modules D or E. This type of report includes the description of the manufacturing sites, the list of certified products covered by the audit, the evaluation of the quality system applied and the means of production and checking of products, observations made during the audit visit, and an evaluation of the specific procedures of the Regulations (marking, declaration of conformity, archiving and information to INERIS).

4. The verification report to the unit (module G)

It corresponds to the choice of module G without the application of module B beforehand. This type of report includes the description of the application, the description and the identification of the product(s) concerned, the details of the evaluation of the product's conformity with the essential safety requirements of the Regulations, a brief description of the conditions of manufacture and inspection of the product which is the subject of the application.

11.2. CHECKING THE TEST RESULTS AND REPORTS

See the general rules concerning the product certification activity.

When assessments on pyrotechnical articles have been undertaken by the applicant before the application for certification, INERIS may take into account the results.

The test results are checked by the project manager and validated by the manager of the CERN division.

13. CERTIFICATION DECISION

See the general rules concerning the product certification activity.

The requirements for granting the certification are defined in the Regulations. The documents issued are the following:

Module	Type of Documents issued for certification
B	Type examination report + Type examination certificate
C2	Product control report + certificate of conformity
D	Audit report + quality assurance notification
E	Audit report + quality assurance notification
G	Audit report + certificate of conformity

In the event of the suspension, withdrawal or refusal of the certification, INERIS shall provide the notifying authority and the other AB of the areas concerned with the relevant information on matters relating to the negative results of the conformity assessment.

14. SURVEILLANCE

See the general rules of the activity for product certification.

15. USE OF THE LICENSES, CERTIFICATES AND COMPLIANCE MARKS

See the general rules of the activity for product certification.

When quoting INERIS for its certification activities relative to the UKCA marking, the Manufacturer and the Applicant shall use the UKAS Certification Symbol or shall without variation use the phrase:

« a UKAS accredited certification body No. 23472 »

The Manufacturer and the Applicant can refer to the UKAS Publication "Accreditation Logo & Symbols. The National Accreditation Logo and Symbols: conditions for use by UKAS and UKAS accredited organisations", available on the UKAS website.

16. COMPLAINTS TO THE SUPPLIER

See the general rules of the activity for product certification.