Ineris	INTERLABORATORY COMPARAISON 25-230496

INTERLABORATORY COMPARISONS

2025

"Analysis of samples from stationary source emissions"

Hydrochloric acid, hydrofluoric acid, ammonia, sulfur dioxide, metals, dust and PAHs.

Ineris - 230496 - 2956384 - v1.0

08 January 2025

Organizer: Ineris

- *Environmental Characterisation and Impacts on Human and Biodiversity Department*

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Accreditation No. 1-2291, ILC, Scope available on www.cofrac.fr

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1. CONTEXT

Since 2003, Ineris has organised Proficiency Testing Scheme for analysis of samples coming from stationary source emissions. The special feature of these tests is that they focus on samples, like real emission matrices. Various flue gases (gas, fuel oil, coal and bio-fuels) are passing through washing bottles filled with absorption solutions used as collection media.

This document contains all the information necessary for registration in the Proficiency Test. It contains:

- the participation procedures,
- the program of the PT.

2. OBJECTIVES

The participation to a proficiency testing program has several objectives:

- compare its results with those of other laboratories carrying out same type of analysis,
- assess operator skills for a given technique,
- evaluate a method used in the determination of an analyte in a given matrix,
- meet the requirements of quality reference documents,
- improve the quality of its results,
- demonstrate its skills in the measurement of an analyte in a given environment, in order to fulfil any regulatory requirement, for example: approval or accreditation.

These objectives are achieved owing to the proficiency test programme which uses robust statistical methods allowing reliable reference values to be reached (see annex N°3).

3. PURPOSE OF THE STUDY

The purpose of the study is to implement and carry out inter-laboratory tests related to the analysis of substances generated in industrial processes, such as those found in glass factories, household waste incinerators or any other treatment units that emit to the atmosphere.

For gaseous compounds matrix will be generated by passing flue gases generated by a combustion process through the absorption solutions.

This interlaboratory comparison will be carried out under an accreditation (accreditation No. 1-2291 - scope available at www.cofrac.fr) except for the parameters identified by the symbol ⓘ and supplemented by the words "outside scope of accreditation" whenever possible.

For this year, it was decided to study the parameters listed below:

- Dust by gravimetry ⓘ (filter and rinsing solution),
- Gaseous hydrochloric acid (HCl),
- Gaseous hydrofluoric acid (HF) and particulate
- Gaseous and particulate metals:
  - arsenic (As),
  - cadmium (Cd),
  - chromium (Cr),
  - cobalt (Co),

- copper (Cu),
- manganese (Mn),
- nickel (Ni),
- lead (Pb),
- antimony (Sb),
- selenium (Se),
- thallium (Tl),
- vanadium (V),
- zinc (Zn).

- Particulate polycyclic aromatic hydrocarbons (PAH) below:
  - benzo[a]anthracene,
  - benzo[k]fluoranthene,
  - benzo[b]fluoranthene,
  - benzo[a]pyrene, (b[a]P),
  - dibenzo[a,h]anthracene,
  - benzo[g,h,i]perylene,
  - fluoranthene,
  - indeno[1,2,3 – c,d]pyrene.
- Sulphur dioxide (SO2),
- Ammonia (NH3).

A test may be postponed or canceled if the number of participants for a program is less than 10.

3.1. DUST BY GRAVIMETRY ⓘ

3.1.1. Filter

Five quartz filters will be dispatched for each participant:

- two filters are dedicated for weighing under the controlled conditions of their laboratory. These weighed filters should be returned to Ineris in order to carry out the spiking process. Once the spiking operation is completed, the filters will be sent back to the laboratories for final weighing taking account of the environmental factors.
- three additional filters will be dispatched to laboratories in order to carry out the correction procedure required by the EN 13284-1 standard.

3.1.2. Rinsing solution

An aqueous solution will be dispatched to the participant for the dry extract concentration.

3.2. HYDROCHLORIC ACID

The absorption solution will be prepared according to the recommendations of standard EN 1911 and subjected to gaseous effluents generated by the combustion of a material. A single level of concentration will be studied.

3.3. HYDROFLUORIC ACID

3.3.1. Gaseous phase

The test material will be 0.1N sodium hydroxide according to the recommendations of standard NF CEN/TS 17340, subjected to gaseous effluents generated by the combustion of a material. Only one level of concentration will be studied.

3.3.2. Particulate phase

The study will focus on dust from incinerator of from housewaste incinerator unit

The test material will be enriched in 'sequestering' elements which implies the implementation of an alkaline fusion. A single level of concentration will be studied.
The dust will be treated and analysed using standard laboratory methods.

A filter, provided by Ineris, will be added to the test material just before extraction.

3.4. METALS

3.4.1. Gaseous phase

The absorption solution will be prepared according to the recommendations of standard EN 14385 and subjected to gaseous effluents generated by the combustion of a material. A single level of concentration will be studied.

3.4.2. Particulate phase

The study will focus on dust from incinerator of from wastewater treatment.

The dust will be treated and analysed using standard laboratory methods.

A filter, provided by Ineris, will be added to the test material just before digestion.

3.5. POLYCYCLIC AROMATIC HYDROCARBONS

Boiler dust will be used for this study.

The dust will be treated and analysed using standard laboratory methods. Only one sample with a given concentration will be studied.

A filter, provided by Ineris, will be added on test material.

It is not advised to carry out an ultrasonic extraction. The results obtained from this type of extraction will be discarded from the data set used for calculation of assigned values. Nevertheless, a z-score will be calculated for participants who implemented an ultrasonic extraction.

3.6. SULPHUR DIOXIDE

The absorption solution will be prepared according to the recommendations of standard EN 14791 and subjected to gaseous effluents generated by combustion of a material. A single level of concentration will be studied.

3.7. AMMONIA

The test material will be 0.1N H_2SO_4 according to the recommendations of standard EN ISO 21877, subjected to gaseous effluents generated by the combustion of a material. Only one level of concentration will be studied.

4. LABORATORIES CONCERNED

All laboratories carrying out work in the area of analysing substances emitted to the atmosphere in similar sampling environments are concerned.

5. GENERAL TECHNICAL REQUIREMENTS

5.1. REGISTRATION PROCEDURE

Period for registration is set to:

10 January 2025 to 07 March 2025

on the following website:

https://comparaisons-interlaboratoires.ineris.fr

For the **first connection,** i.e without account already existing, the laboratory shall create its account for accessing to website utilities. For that, the laboratory shall have the information below:

- enterprise identification (SIRET, DUNS,…),
- VAT Intra-community number (Europe only).

After validation by Ineris, the laboratory will be able to register to the proposed ILC.

Online help is available on the website.

If the account already existing, the laboratory will access directly to the registration step below.

During the **registration phase**, the laboratory shall have the information below:

- enterprise identification (SIRET, DUNS,…),
- an order from their internal services addressed to Ineris.

Please note: The BIPEA quote and the form available on the website are not accepted as valid orders. Without a valid order, report will not be provided to the participant.

A confirmation will be sent to the participant 15 days after the end of registration with his lab identification.

5.2. PRICE

Intitulé	Amount in € excluding tax	20% VAT	Amount in € all taxes included
25-230496- weighing Test 1b: dust by gravimetry	518.00 €	103.60 €	621.60 €
25-230496- HCl Test 4b : gaseous hydrochloric acid	689.00 €	137.80 €	826.80 €
25-230496- HF Test 5b : gaseous and particulate hydrofluoric acid	1 209.00 €	241.80 €	1 450.80 €
25-230496- Metals Test 6b : gaseous and particulate metals	1998.00 €	399.60 €	2397.60 €
25-230496- PAH Test 9b : polycyclic aromatic hydrocarbons	941.00 €	188.20 €	1 129.20 €
25-230496- SO_2 Test 10b : gaseous sulfur dioxide	689.00 €	137.80 €	826.80 €
25-230496- NH_3 Test 16b : gaseous ammonia	689.00 €	137.80 €	826.80 €

Invoices and payment will be established **when sending samples.**

Payment by credit card is not accepted.

The general terms and conditions of sale are available in annex 4.

5.3. INERIS COMMITMENTS

Ineris commits to abide by the EN ISO/CEI 17043 standard during the organization of the ILC.

Ineris commits to ensure information confidentiality in the online result submissions and anonymity in the result report by assigning a confidential code to each participant.

Ineris commits to protect participant identity confidentiality by only giving access to the confidential code to a limited number of people within the coordination group.

Ineris commits to notify all participants of any amendment to the ILC schedule and rules as soon as possible.

Confidential information, defined in the general terms and conditions of sale, and where applicable, by the confidentiality agreement, may be communicated to the auditors commissioned by the certifying and accrediting bodies or in the context of an outsourced internal audit, which is themselves subject to a confidentiality agreement. The customer's order constitutes agreement to carry out these communications.

Ineris commits to take into consideration any claim in accordance with the provisions of the Quality Manual (§5.3: 'Stakeholders and listening to customers / Claims) available on the Ineris website at the following address: www.Ineris.fr.

5.4. PARTICIPANTS' COMMITMENTS

At the time of their registration, participants undertake to:

- complete and return the acknowledgment of receipt IM-0223,
- respect for each parameter the method specified in Annex 1 and in the Instruction Form IM-1541,
- restitute the results with full integrity, without falsification or collusion,
    -  In case of NO-COMPLIANCE, Ineris reserves the right not to take into account the data of the participant concerned and initiate appropriate actions.
- restitute the results as scheduled, except in case of equipment failure reported before the results restitution deadline
- provide the associated metadata, as requested.

5.5. COMMUNICATION

Correspondence between Ineris and the participants should be mainly done electronically. Ineris rejects any responsibility in case of undelivered emails. The confidential code must be specified for further correspondence with the coordinator.

All documents related to the ILC can be downloaded at https://comparaisons-interlaboratoires.ineris.fr.

6. ANNEXES

Annex No.	Title
1	Description of the programs
2	General organization of Proficiency Test
3	Statistical processing and restitution of test
4	General terms of sales

Annex No.1

Test	25-230496 – weighing (test 1b)		25-230496 – HCl (test 4b)
Substances to be analyzed	Dust by gravimetry ⓘ		HCl
Date of receipt	Week 12 & 21	Week 21	Week 21
Analytical standards	EN 13284 or similar		EN 1911 or similar
Tested matrices / Sampling medium	Quartz filter	Water	Water
Concentration level	1 – 50 mg		0,1 – 20 mg/L
Bottling	3 boxes	2 bottles	1x100 mL vials in HDPE
Stabilization	No		No
Refrigeration	No		No
Number of measures per bottle	1		3
Statistical processing implemented: Assigned value	• Robust mean of all participants' results by applying the algorithm A of standard ISO 13528		• Robust mean of all participants' results by applying the algorithm A of standard ISO 13528 for a population > 10. • Spiking value for a population < 10.
Statistical processing implemented: standard deviation for assessment	• Robust standard deviation calculated by applying the algorithm A of standard ISO 13528		• Robust standard deviation of all participants' results by applying the algorithm A of standard ISO 13528 for a population > 10. • Set value (5%) for a population < 10.
Assessment	z score		
Monitoring of the homogeneity	Yes		No[1]
Monitoring of the stability	No[1]		

1 : annex 2 § 7

Annex No.1

Test	25-230496 – HF (test 5b)	
Substances to be analyzed	HF and fluorinated compounds	
Date of receipt	Week 21	
Analytical standards	Laboratory's usual standard	
Tested matrices / Sampling medium	NaOH 0.1N	Dust from incinerator of sludge from wastewater treatment
Concentration level	0.1 – 10 mg/L	0.5 – 10 mg/g
Bottling	1x 200 mL vial in HDPE	1x vial of ~ 1 g
Stabilization	No	No
Refrigeration	No	No
Number of measures per bottle	3	3
Statistical processing implemented: Assigned value	• Robust mean of all participants' results by applying the algorithm A of standard ISO 13528 for a population > 10. • Spiking value for a population < 10.	Robust mean of all participants' results by applying the algorithm A of standard ISO 13528
Statistical processing implemented: standard deviation for assessment	• Robust standard deviation of all participants' results by applying the algorithm A of standard ISO 13528 for a population > 10. • Set value (9%) for a population < 10.	Robust standard deviation calculated by applying the algorithm A of standard ISO 13528
Assessment	z score	z-score except for a population < 8 after exclusion of missing or aberrant results => indicative value
Monitoring of the homogeneity	No[1]	Yes: Ineris Accreditation No.1-0157, Tests, Scope available on www.cofrac.fr
Monitoring of the stability	No[1]	

1 : annex 2 § 7

Annex No.1

Test	25-230496 – Metals (test 6b)	
Substances to be analyzed	As, Cd, Cr, Co, Cu, Mn, Ni, Pb, Sb, Se, Tl, V and Zn	
Date of receipt	Week 21	
Analytical standards	EN 14385 or similar	
Tested matrices / Sampling medium	HNO_3/H_2O_2	Dust from incinerator of sludge from wastewater treatment
Concentration level	0.005 – 0.5 mg/L	0.1 -10 mg/g
Bottling	1x 100 mL vial in HDPE	1 vial of ~ 1 g
Stabilization	No	No
Refrigeration	No	No
Number of measures per bottle	3	3
Statistical processing implemented: Assigned value	• Robust mean of all participants' results by applying the algorithm A of standard ISO 13528 for a population > 10. • Spiking value for a population < 10.	Robust mean of all participants' results by applying the algorithm A of standard ISO 13528
Statistical processing implemented: standard deviation for assessment	• Robust standard deviation of all participants' results by applying the algorithm A of standard ISO 13528 for a population > 10. • Set value (between 4 and 10%, depending on metal) for a population < 10.	Robust standard deviation calculated by applying the algorithm A of standard ISO 13528
Assessment	z score	z-score except for a population < 8 after exclusion of missing or aberrant results => indicative value
Monitoring of the homogeneity	No[1]	Yes: Ineris Accreditation No.1-0157, Tests, Scope available on www.cofrac.fr
Monitoring of the stability	No[1]	No[1]

1 : annex 2 § 7

Annex No.1

Test	25-230496 – PAH (test 9b)
Substances to be analyzed	**Polycyclic aromatic hydrocarbons:** • benzo[a]anthracene, • benzo[k]fluoranthene, • benzo[b]fluoranthene, • benzo [a]pyrene, • dibenzo[a,h]anthracene, • benzo[g,h,i]perylene, • fluoranthene, • indeno[1,2,3 – c,d]pyrene.
Date of receipt	Week 21
Analytical standards	Laboratory's usual standard
Tested matrices / Sampling medium	Dust from boiler
Concentration level	1 à 100µg/g
Bottling	1x1 g vials
Stabilization	No
Refrigeration	No
Number of measures per bottle	3
Statistical processing implemented: Assigned value	Robust mean of all participants' results (without results obtained by using ultrasonic method) applying the algorithm A of standard ISO 13528
Statistical processing implemented: standard deviation for assessment	Robust standard deviation calculated by applying the algorithm A of standard ISO 13528
Assessment	z score
Monitoring of the homogeneity	Yes: Ineris Accreditation No.1-0157, Tests, Scope available on www.cofrac.fr
Monitoring of the stability	No[1]

1 : annex 2 § 7

Annex No.1

Test	25-230496 – SO_2 (test 10b)	25-230496 – NH_3 (test 16b)
Substances to be analyzed	SO_2	NH_3
Date of receipt	Week 21	Week 21
Analytical standards	EN 14791 or similar	EN ISO 21877 or laboratory's usual standard
Tested matrices / Sampling medium	H_2O_2 0.3%	H_2SO_4 0.1N
Concentration level	1 – 50 mg/L	1 – 50 mg/L
Bottling	1x150 mL vials in HDPE	1x 100 mL vials in HDPE
Stabilization	No	No
Refrigeration	No	No
Number of measures per bottle	3	3
Statistical processing implemented: Assigned value	• Robust mean of all participants' results by applying the algorithm A of standard ISO 13528 for a population > 10. • Spiking value for a population < 10.	
Statistical processing implemented: standard deviation for assessment	• Robust standard deviation of all participants' results by applying the algorithm A of standard ISO 13528 for a population > 10. • Set value (7%) for a population < 10.	• Robust standard deviation of all participants' results by applying the algorithm A of standard ISO 13528 for a population > 10. • Set value (12%) for a population < 10.
Assessment	z score	
Monitoring of the homogeneity	No[1]	
Monitoring of the stability	No[1]	

1 : annex 2 § 7

Annex No. 2: General organization of an interlaboratory comparison

The typical ILC schedule is specified below.

- ILC feasibility study (in order to define and assess outline of the optimal test conditions);
- Sampling and sample packaging (sample fortification, if required);
- Sending (d = 0) of the test materials to the participants.
- Receipt of the test materials by the participants (d = +1);
- Analysis of the test materials by the participants (d = +1 to +28).
  Checking by Ineris of the test material homogeneity and stability all along the ILC, if necessary;
- Result submissions by the participants at https://comparaisons-interlaboratoires.ineris.fr;
- Data processing and statistical analysis performed by Ineris;
- Sending of the final report including a satisfaction survey form.

The general organization of the interlaboratory comparison is as follows:

1. Feasibility study of the test

Each test material undergoes a feasibility study over several weeks. However, if the homogeneity and stability have been the subject of a previous study on similar test materials (matrix, concentration level) and prepared following the same procedures, the feasibility study will not be renewed.

2. Test announcement

Ineris informs the laboratories of the organization of a test by transmitting the Annual Program and publishing information on the website.

3. Participant registration

Ineris receives the registration request and confirms the registration of the participant by email and provides its laboratory identification.
The instruction form IM1541 is forwarded to participants prior to, or with, the test materials in order to provide instructions (compounds to quantify, storage, handling, etc.…) and deadlines. The form is also available at https://comparaisons-interlaboratoires.ineris.fr

4. Test material preparation

Test materials are prepared and packaged by Ineris in compliance with official guidelines. Such guidelines deal especially with the nature of the matrices, the concentration levels and the test material preparation in order to assure their quality in terms of stability and homogeneity.

Sending of the test materials is performed by Ineris.

5. Sending of the test materials

The test materials are sent by express delivery post. The delivery quality is monitored by Ineris.

The following document is included in the package:

- Receipt acknowledgements (form IM-0223). Upon receipt of the package, participants are required to send it back to Ineris fully completed;

Test materials are preferentially shipped at the beginning of the week in order to allow the participants to start the analytical process before the end of the week.

All the forms are available at https://comparaisons-interlaboratoires.ineris.fr.

6. Receipt and analysis of test materials

Upon opening of the package, participants shall:

- Inspect the package as well as its contents and write any relevant information on the receipt form IM-0223;
- Put the test materials in appropriate storage conditions immediately;
- Inform Ineris of the receipt and conditions of package by returning the receipt form IM-0223 by email.

Participants shall start the analysis of the test materials as soon as possible.

7. Checking of the test materials

Controls on test materials sent will be performed during the analysis phase by the participants. Ineris will ensure that the test materials are stable and homogeneous by performing repeatability tests on several samples during the analysis phase.

Some materials may be exempted from this control if previous data have shown that the preparation procedures allow for sufficient homogeneity and stability. Nevertheless, a comparaison between the obtained robust standard deviation and the previous will be performed to detect a significant difference.

8. Data Submission

The usual time period for the participants to achieve the analyses and submit their results is of 4 weeks.

The results will be sent by the participant using the https://comparaisons-interlaboratoires.ineris.fr site with its personal account.

For specific tests, additional forms may be provided to the participants. Results can only be validated once the requested forms are fully filled.

The technical support is available online in order to help the participants to use the website for result submissions.

Incomplete results may be accepted if a participant, for specific reasons, is not able to analyze one or several compounds.

Results not considered for the statistical analysis are the following:

- Values below the limit of quantification “<LoQ”,*
- values entered as zero "0";
- Values for which a systematic error (errors of dilution or unit of measurement) is identified (for instance by a factor 1000).

***** The methodology will be as follows:

Restitution of 3 values

	Data received	Data taken into account
1st case	C, C, C	C, C, C
2nd case	C, C, <LQ	C, C
3rd case	C, <LQ, <LQ	none
4th case	<LQ, <LQ, <LQ	none

Restitution of 2 values

	Data received	Data taken into account
1st case	C, C	C, C
2nd case	C, <LQ	none
3rd case	<LQ, <LQ	none

Annex No. 3: Statistical processing and reporting of results

1. Statistical processing

Statistical processing of the results shall be carried out by Ineris in accordance with the requirements of:

- EN ISO/CEI 17043 giving the guidelines for implementing proficiency tests,
- ISO 5725 series: « Accuracy (Trueness and Precision) of measurement methods and results »,
- ISO 13528: « Statistical Methods for Use in Proficiency Testing by Interlaboratory Comparisons ».

The assigned value will be based on the consensus of the results of the entire population participating in the test. It will be calculated using robust statistical methods.

The advantage of the robust analysis is that the calculations of the assigned value (reference value), the confidence intervals and the performance statistics are not affected by the judgment of the data analyst. The results are studied and treated with objectivity.

Nevertheless, if a population size is too reduced (<10), the assigned value may be set (equal to spiking value for example).

The standard deviation σ_{pt} chosen for the assessment of suitability is equal to the robust standard deviation s^*. It is determined from the results of the participants by applying Algorithm A of standard ISO 13528. However, if regulatory or normative requirements exist regarding uncertainty or when the population size is too reduced (<10), σ_{pt} may be set.

The performance evaluation will depend on the type of test materials used:

The evaluation of the performance will be performed using the z (or z') score. Thus, each participant will be able to position itself relative to the assigned value.

Furthermore, the research of suspect values and outliers will be realized with statistical tests of Cochran, Grubbs and Mandel. The aim is to help the organizer and the participant to identify the problem (repetability, trueness). The organizer can return to the participants that the results of some tests because the objectives of some of them are the same.

2. Restitution of the results

The reporting of the test will be conducted in two steps:

- Sending a preliminary test report, one month after the closing date of entry of the results online. This report will gather the raw results of all participants, the mean, the standard deviation of repeatability, the variation of repeatability coefficient and the performance of each participant for each parameter and each test material. At this stage, **no detailed analysis of the data is performed**. This preliminary report will allow participants to have a first return of the test results.
- On completion of full statistical processing, and within 3 months after the intermediate report sending, the final report and satisfaction survey will be sent to participants. It will describe the conducting of the test and the results of statistical processing of data submitted by participants. This report will contain:
    - values discarded from data set,
    - raw data,
    - means, standards deviation after statistic treatment,

- descriptors after statistical treatment,
- z score with a repartition graph,
- a distribution curve of the average with standard deviation of repeatability of all participants,
- Mandel consistency statistics h (trueness) if relevant,
- general and individual advices.

The final test report is **restricted**. It will be sent to:

- the ILC steering committee, and Approval Committee
- the participants and / or available at https://comparaisons-interlaboratoires.ineris.fr via their personal space.

A satisfaction survey will be sent at the time of sending the final test report.

Note:

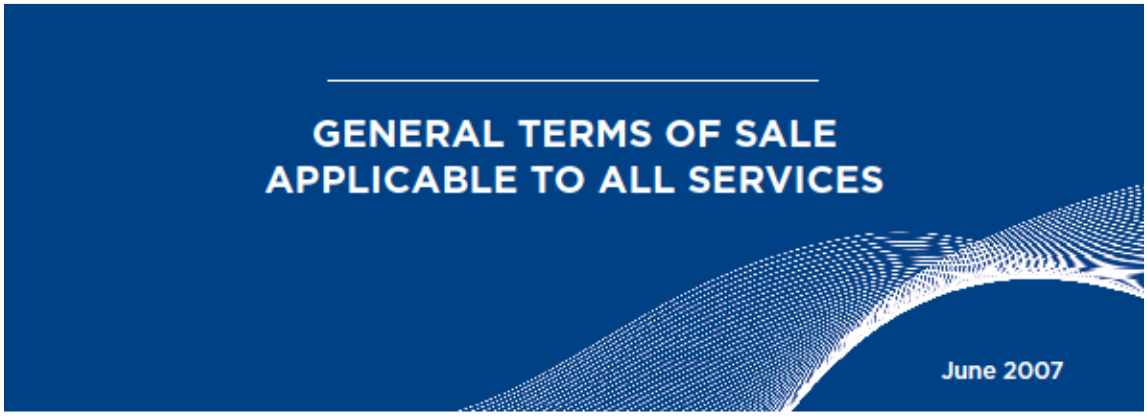
Any decision on formal recognition (accreditation) or legal recognition (approval) of the results is the responsibility of the body issuing the recognition (COFRAC or similar or the French Ministry of the Ecology).

Decisions to grant, maintain or withdraw accreditation or to renew participation in interlaboratory comparisons when the Ministry of the Ecology considers that significant differences in results justify it, are the sole responsibility of the French Ministry of the Ecology, after consulting the members of the approval commission.

The results of the test campaigns are presented to the Approval Commission anonymously. However, anonymity may be lifted if the French Ministry of the Ecology so requests. If anonymity is removed, the information will be sent to the participant concerned.

Confidential information may be disclosed to auditors appointed by certification and accreditation bodies, or as part of an outsourced internal audit, who are themselves subject to a confidentiality agreement. The client's order constitutes consent to such communication.

Annex No. 4: General terms of sales



I – DEFINITIONS

Order acknowledgement: a written document by which Ineris accepts the customer's order or modifies the terms of the order.

Customer: a corporate entity or person on behalf of whom Ineris agrees to perform a service in exchange for payment.

Contract: the generic term designating any commercial agreement, order, contract or deal, set out on paper and explicitly accepted by Ineris. Ineris refers directly or indirectly to these General Terms of Sale in any contract and by such a contract Ineris commits to providing a service and the customer commits to paying for it as well as covering the cost of any other commitments that they may have.

Proposal: a paper document in which Ineris proposes to perform work (services, provision of supplies, work, etc) and in which a price is set out, whether it is determined or to be determined. All proposals made by Ineris make reference to these General Terms of Sale.

II. GENERAL

Except when formally accepted by Ineris in the specific terms and conditions attached to the proposal, no other conditions may take precedence over those set out in these general and specific terms and conditions.

Ineris only makes a commitment by way of submitting a binding proposal set out on its letterhead. The terms and conditions of the proposal apply only during the stated option period.

On condition that the measures required of the customer as described in the proposal are fulfilled (handover of documents, materials or samples / payment of the deposit / access authorizations...), the contract shall only become applicable and binding after Ineris has acknowledged receipt of the customer's order. In the absence of any receipt acknowledgement within twenty one (21) calendar days following order receipt, the contract becomes binding from the time when the order is received. Any change to the services set out, and that is made after the definitive conclusion of the contract requires a written addenda.

Failure to demand, at any time, any application of one or more proposal stipulations in no way represents a relinquishment by Ineris of its rights and in no way impacts the validity of the measures in question.

Any contract accepted by Ineris cannot simply be cancelled, whether in whole or in part, by the customer. No cancellation can be accepted free of charge. The compensation demanded shall not be less than the costs incurred up to the time of cancellation.

The list of parties involved and listed in the contract is mentioned for information purposes only. Ineris can therefore change the parties that it involves, on condition that they have the necessary expertise in order to fulfill the contract.

Research Tax Credit (under French law): it is up to the customer to ensure that the services performed are eligible for this tax credit before including them in the amounts eligible for their Research Tax Credit.

III - LEAD-TIMES AND DATES (HEREINAFTER REFERRED TO AS LEAD-TIMES)

The lead-times set out in the proposal or in the receipt acknowledgement are provided for information purposes only. Delays cannot in any case justify cancelling the order or open up a right to compensation for any loss suffered, whether direct or indirect.

Late delivery penalties may only be demanded if there is an express and written agreement between the parties. They may only be applied if Ineris alone is responsible for the delay and if it causes a true loss duly observed by both parties.

Lead-time aspects are suspended should the customer fail to meet their own obligations.

Ineris is by right cleared of any threat of sanction or penalty should cases of force majeur occur as defined by legal precedent (i.e. events that the parties could not reasonably forecast and control at the time when the contract was entered into, due to their external, unforeseen and irresistible aspect) or due to events outside of Ineris' control and which have been brought to the customer's knowledge as soon as they occur, such as: lock-outs, strike action, transport bans or delays, legally binding changes to working hours or any other cause that leads to full or partial work stoppages affecting Ineris or its suppliers.

IV – PRICE AND TAXES

All services are billed at the price agreed in the definitive contract. This price may however be corrected as a result of the application of legal stipulations that apply to the scope of the contract.

Prices are stipulated as being exclusive of tax.

For services performed outside of France, all taxes (both direct and indirect), duties, levies and charges of any kind, and especially company taxes of profits, taxes on sales, Customs duties, taxes deducted at source by the Revenue Administration of the country in question, are the customer's responsibility, to be paid directly or by refunding any amounts advanced by Ineris or directly deducted from payments made.

All exchange rate related costs or commissions that may be incurred are to be paid by the customer and cannot be deducted from the price paid to Ineris.

V - BILLING AND PAYMENT

Billing takes place in line with the specific stipulations agreed for the contract.

The payment of amounts owing is to be made to head office, net and without discount, in French currency, thirty days end of month from the invoice date:
/ by check made out to Ineris;
/ by bank transfer.

It is expressly stated that should there be any delay in making payments at the dates that are set, the amounts owing shall by right attract interest on the basis of ten times the legal interest rate set in France, and this without impacting the demand that the debt be settled in full. The cost of any sight drafts returned unpaid or any collection costs incurred are always the customer's liability. Any interest owed for late payments is not subject to French Value Added Tax (T.V.A.).
In the event of any late payment, the penalties owed are payable along with the principal.

ID Modèle = 658547 produit à partir du DIT173AA

INERIS

The amounts owed shall become due immediately, regardless of any conditions agreed previously, should the customer sell, set aside as guarantee or pledge to a company, its business or its equipment.

Payments cannot be differed or changed as a result of penalties owed by Ineris. No compensation can be applied as a result of this.

VI - CONFIDENTIALITY

Ineris staff is duty bound to observe total discretion and, as such, forbid themselves from releasing to any third parties any information regarding the results of the services performed by Ineris at the customer's request and without their permission. The same applies to any information made available by the customer and explicitly identified as being confidential.

These measures do not however apply to: .

/ information in the public domain;
/ information that Ineris was already aware of;
/ information obtained legally through sources other than the customer.

VII - INTELLECTUAL AND INDUSTRIAL PROPERTY RIGHTS

Ineris retains full and complete ownership over its diagrams, design work, projects, calculations, processes, handiwork, expertise, patents... whether applied or made available, especially when drawing up the proposal and while performing the services. They cannot be released to third parties nor applied without formal approval from Ineris.

Should the services provided lead to a patentable invention, a specific agreement shall be concluded between Ineris and the customer setting out the ownership of the results. As of now, we agree that the sharing of rights shall take into account the financial and intellectual efforts made by each of the parties.

The reports, minutes or other records issued by Ineris shall become the customer's property as soon as Ineris has received payment in full for the services provided. In this case, Ineris cannot release the report, minutes or other record or reproduce it for use by third parties, without the customer's permission.

VIII - SUBCONTRACTING

Ineris is allowed, under its own responsibility, to call on subcontractors.

IX - TERMINATION

The contract shall be terminated by right should the customer fail to meet their commitments and after this is notified to them by Ineris by recorded delivery letter with receipt acknowledgement and if this situation is not corrected within thirty (30) from receipt of this letter. Notwithstanding any damages and compensation owed, the customer will in this case be held liable for all spending incurred up to the time of termination. If the down payment made exceeds the spending incurred, it will be retained by Ineris as compensation.

X – HYGIENE AND SAFETY

Any work performed by Ineris at the customer's facilities must be performed in line with legally binding stipulations, especially those relating to workplace hygiene and safety, and especially those set out in decree 92.158 dated 20 February 1992 setting out requirements for work performed at a facility by an outside contractor.
If the customer has consigned to a specific document any general and specific safety rules to be complied with, it is up to them to send them to Ineris, at least ten (10) days ahead of any work by INERIS at the customer's facility.

XI – RESPONSIBILITY

Customer responsibility

Should they wish to visit the Verneuil en Halatte facility, the customer commits to complying with the general stipulations made by INERIS and, where applicable, any specific instructions, especially should the customer have need to intervene at this facility.

The customer assumes full responsibility for any damage caused to Ineris or to its staff due to provision of insufficient or incorrect information.

Ineris' responsibility

Ineris will produce its report:

/ in line with the information provided by the customer. The reports will mention the references of any documents provided. Ineris cannot take responsibility if the customer provides incorrect or incomplete information. In the same way, Ineris cannot be bound to integrate any new data provided by the customer while services are being provided;
/ on the basis of this information, the objective (scientific or technical) data available as well as applicable law.

Only a report that shows up the validation process in line with its quality assurance rules is likely to bring Ineris to accept responsibility.

When acting as a service provider, Ineris is bound to provide the necessary resources to perform it work.
Furthermore, Ineris' role is limited to being bound to provide advice. As such, the opinion, recommendations, suggestions or equivalent made by Ineris as part of the work that it is entrusted with can only comprise enlightening the applicant, but never taking over their decision power.

Given the mission entrusted to Ineris by the act founding it, Ineris never intervenes in actual decision making. Ineris cannot therefore take responsibility in place of the decision maker.

Ineris cannot accept responsibility for any material and immaterial damage linked to the fulfillment of the service to be provided.

Ineris cannot accept responsibility for any technical difficulties encountered while performing the work, due to unforeseen events that cause danger to the safety of persons and property.

Ineris cannot be held responsible for any incorrect interpretations that may be made of its report and/or of any failure to apply recommendations that may have been made in it.

Consequently, the end user shall use the results included in the report in full or at least objectively. Any use in the form of excerpts or summary memos will be performed under the full responsibility of the end user. The same applies to any modification made to it.

Ineris declines all liability for any use of the report outside of the scope of the initial service contract.

In all cases, if Ineris was to be held responsible in the context of the provision of its services, the amounts of any compensation, damages and interest paid cannot in any case exceed the price set in the contract and in any case shall remain within the limit of the coverage provided by the civil liability insurance policy coverage taken out by Ineris.

XII - DISPUTES

Any dispute that may arise is subject to the terms of French law.

In any dispute that relating to its services, the Courts of Senlis (Oise/France) alone shall be considered competent to hear the matter, and this regardless of the terms of purchase and form of payment accepted, even if called in to guarantee another party or if there are multiple defendants.

This present general contractual terms written in English are for information only. The French version shall prevail over any translation that may be made.

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