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Implementation of measures for fighting **CFSI** (Counterfeit, Fraudulent and Suspect Items)

Presentation for suppliers

May 2021 version

SUMMARY

1 . Context, stakes, consequences

Context and stakes

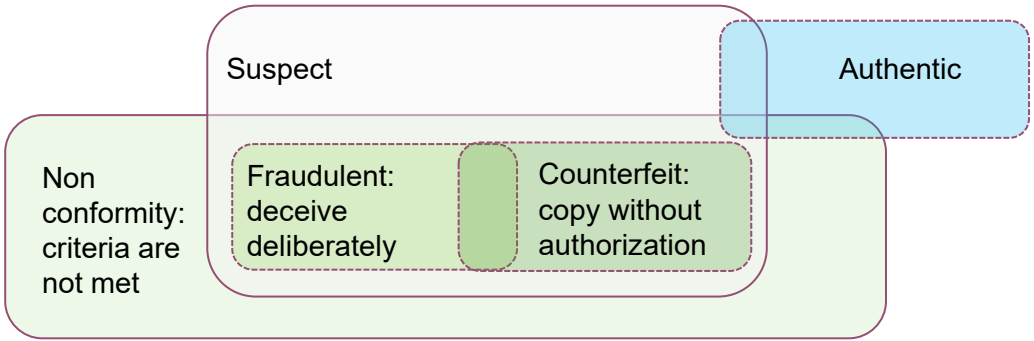
- History :
  - Growning concern began in the lates eighties when used nuclear components were sold as new.
  - Significant event in South Korea: fraudulent equipment installed on two nuclear units in 2012.

- Why are frauds increasing?
  - To win more contracts and earn more money
  - To meet needs of the market

- *Recent problem which is linked to the safety culture of nuclear industry (see IAEA-TECDOC-1169 AND NP-T-3.26)*

Definitions for CFSI: Counterfeit, Fraudulent and Suspect Item[1]

- **Counterfeit:** imitation or alteration of a legal product **without legal right** or imitation with the purpose of passing false copy for authentic / genuine **without authority**
- **Fraudulent: Intentional** misrepresentation to deceive, incorrect identification, falsified or inadequate certification, or used / defective items sold as new
- **Suspect:** Items **suspected of being** counterfeit or fraudulent. Legally, may not be appropriate to call an item counterfeit / fraudulent unless verified, and conclusive investigation might be very costly.



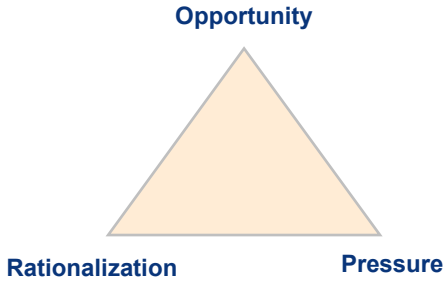
- Non-Compliant = Deviation: Product not respecting requirements and which is supplied by justifiable industrial operators **without intention to deceive**

[1] *Item* : raw materials, components, parts or services

What motivates companies to defraud?

Whatever its nature, fraud is always intentional and can be explained according to the following 3 motivations for the fraudster or the company:

- **Opportunity**: use of the gaps in a system, for example, ineffectiveness or controlled absence
- **Rationalization**: moral justification which allows acceptance of the act: survival of the company, preservation of the item, technical "self-importance“
- **Pressure**: difficulties with which the actors are confronted: deadlines (extensions), costs, and technical complexities



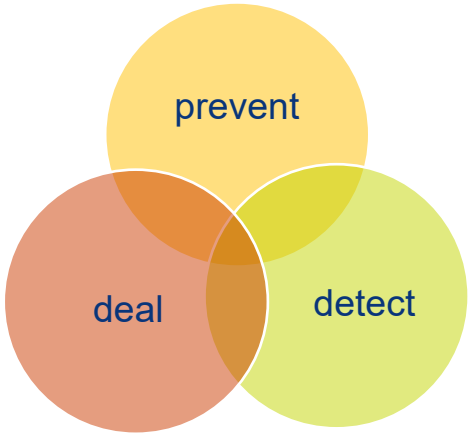
The triangle represents motivation for the fraudster (company, individual)
The accumulation of these conditions constitutes a risk factor in CFSI practices

What are the consequences?

- Impact on **nuclear safety and physical security**, linked to the failure of equipment
- Direct financial cost: cost of investigating product compliance or replacing the product
- Indirect financial cost: damaged brand image, tainted reputation and loss of orders / contracts / markets
- Criminal proceedings for the company and for the personally involved individuals (infringement, fraudulence and use of false documents, deceit, aggravated deceit, endangering the life of other people, etc.)

Why declare a potential deviation?

- Gain in operating efficiency
- Gain in security and safety
- Generate an internal and external positive communication
- Develop solidarity focused on ethical behavior: unethical practices increase risks of deviation.



2 . What Framatome expects from suppliers

Barriers against CFSI acts

- A culture of nuclear safety, which is based on the quality of design and the following:
  - Organizational aspect: clear processes, standards, and well defined responsibilities
  - Human aspect: awareness of the importance of safety, skill of the staff, clear understanding of tasks carried out by individuals
  - Questioning attitude and vigilance
  - A strict and careful approach

- The key-role of management, by maintaining a good level of dialogue, by creating the conditions for transparent communication, by accepting the right to make mistakes, by encouraging the escalation of events

- Work on the industrial capabilities, with the intention of reducing scrapping rates and Non Quality costs

How these barriers are implemented

- Implementation of necessary measures for prevention and detection of cases of CFSI within your activities, and at your suppliers

  1. Raising awareness of the whole staff on the risk of fraud or infringement, and the best practices to be implemented,
  2. Independence, with regard to operations, of the staff in charge of QA and QC,
  3. Implementation of methods for detection of cases of CFSI (internal, Supply Chain)
  4. Possibility for every employee, without disclosing his identity, to alert on a deviation or an anomaly, or CFSI practices with possible impact on compliance with requirements or safety:
     - A representative defined by the supplier
     - Framatome, directly or via alert platform

For supplies intended for France, there is also a description possibility in ASN via its web site, for your whole staff and your suppliers.

“The right of alert: indicate, deal, protect”: the addendum to law "Sapin" 2 of December 9th, 2016

How these barriers are implemented

- Additional measures:

  5. Procure the components from the manufacturer of origin or authorized dealer of the concerned good, for the suppliers of equipment.

  6. Authorize Framatome to conduct inspections, controls and programmed or unscheduled audits/inspections (so every supplier has to give Framatome access to its industrial plants, workshops, documentation associated with orders, with software and original or raw data).

  7. Authorize Framatome to ask the tier 2 or higher suppliers for the original reports, and ensure they agree to transmit them directly to Framatome.

  8. Inform Framatome from first knowledge of case of fraud, suspect practice or infringement detected in its own activities or in its subcontracting chain.

  9. Analyze, where necessary, the extent of such practice (volume, duration, etc.), their causes and take all necessary corrective actions to prevent them from recurring.

3. Framatome actions with suppliers

Framatome means for detection

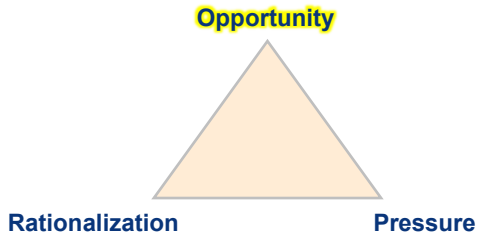
- Operational follow-up:
  - Document-based tightened inspections, Surveillance
  - Surveillance on Products and QA System
  - Random surveillance
  - Documentation Cross Check
  - Joint Examinations (NDE, ..)
  - Mechanical test curves and raw data examination
  - …
- Taken from QN200 requirement of RCCM code amendment (2018) A5230

4.2.4 CONTROL OF RECORDINGS

The following requirements are applicable to preparing the reports required by this code:

- Measures shall be taken by the issuer of the report to ensure readability of the reproduction of the original document by scan or photocopy by avoiding the use of dark highlighters, colour pens, or pencil, or documents with greyed boxes containing information or with insufficient margins,

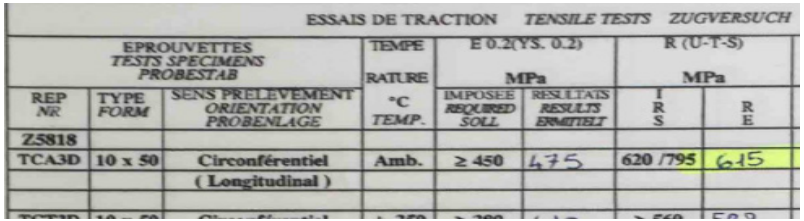
- All barred information in a report before its issuance shall be authenticated (date, name, signature),
- If a correction or addition must be made to a report already issued, it must be re-issued or re-signed by the same entity as the original document and with the same preparation, checking, and approval methods as the original document. A modified report shall identify the report replaced. Exceptionally, minor corrections not modifying the results of the examinations or the determination of conformity can be made without revising the document as long as these corrections are authenticated (date, name, signature).



4. Some examples

Example of fraud

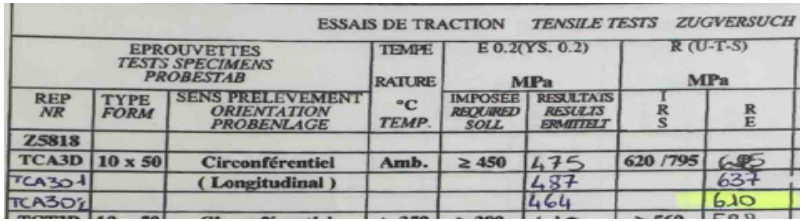
Result of first test



ESSAIS DE TRACTION *TENSILE TESTS ZUGVERSUCH*

EPROUVETTES *TESTS SPECIMENS PROBESTAB*			TEMPERATURE °C *TEMP.*	E 0.2(YS. 0.2) MPa		R (U-T-S) MPa	
REP *NR*	TYPE *FORM*	SENS PRELEVEMENT *ORIENTATION PROBENLAGE*		IMPOSEE *REQUIRED SOLL*	RESULTATS *RESULTS ERMITTELT*	I R S	R E
Z5818							
TCA3D	10 x 50	Circonférentiel	Amb.	≥ 450	475	620 /795	615
		(Longitudinal)					

Additional tests



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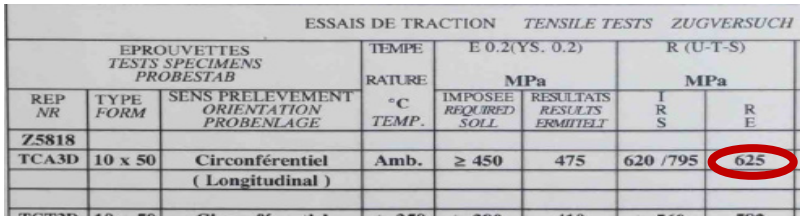
Z5818							
TCA3D	10 x 50	Circonférentiel	Amb.	≥ 450	475	620 /795	625
TCA3D		(Longitudinal)			487		637
TCA3D					464		610

Final certificate



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		(Longitudinal)					

- **Intentional modification in a record / certificate**, which no longer reflects the reality of the product
- **Duplication of an existing test record**, for use on another unchecked product, while checking is mandatory
- **Excessive use / usurpation of the signature** of a person authorized to make an operation, by a person not authorized
- **Intentional non-declaration of non-compliant product**
- **Use of unrepresentative parts or deliberate modification of normal conditions, to favor acceptance, tests, or test results**

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Example of infringement

Legitimate (left) and counterfeit (right) valves.
The "L" logo on the counterfeit valve appears to have added via welding (instead of cast into the valve body) and "cleaned up" with grinding.

Counterfeit valve on the left with the red steering wheel. Legitimate valve on the right with the gray steering wheel.
The differences are obvious to a discerning eye, but can escape an unsuspecting inspector.

- **Use of one product instead of another one** without statement, for example material batch
- Company which fabricated **an excess amount of products and that tries to sell surpluses in unauthorized sectors**

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Thank you