

# New Guidelines for Process Safety of ICCA/RCLG

Implementation and benefits

Sofia, October 26<sup>th</sup>, 2017

Stefan Drees, Cefic



# about Cefic



## Cefic Members:

### Cefic

- “ Founded 1972
- “ Based in Brussels
- “ Represents 29,000 companies...
- “ Who account for 17% of world chemical production
- “ And provide 1,2 M jobs

#### **Corporate Members (ACOM)**

Corporations with a production base in Europe and a worldwide turnover in chemicals of more than euro 1 billion.

#### **Federation Members (AFEM)**

European national federations and associated federations across Europe.

#### **Business Members (ABM)**

Sectoral businesses with a production base in Europe and a worldwide turnover in chemicals of less than euro 1 billion.

#### **Associated Companies**

Companies engaged in the production of chemicals in countries outside Europe in which the association has neither a member federation, nor an associated federation.

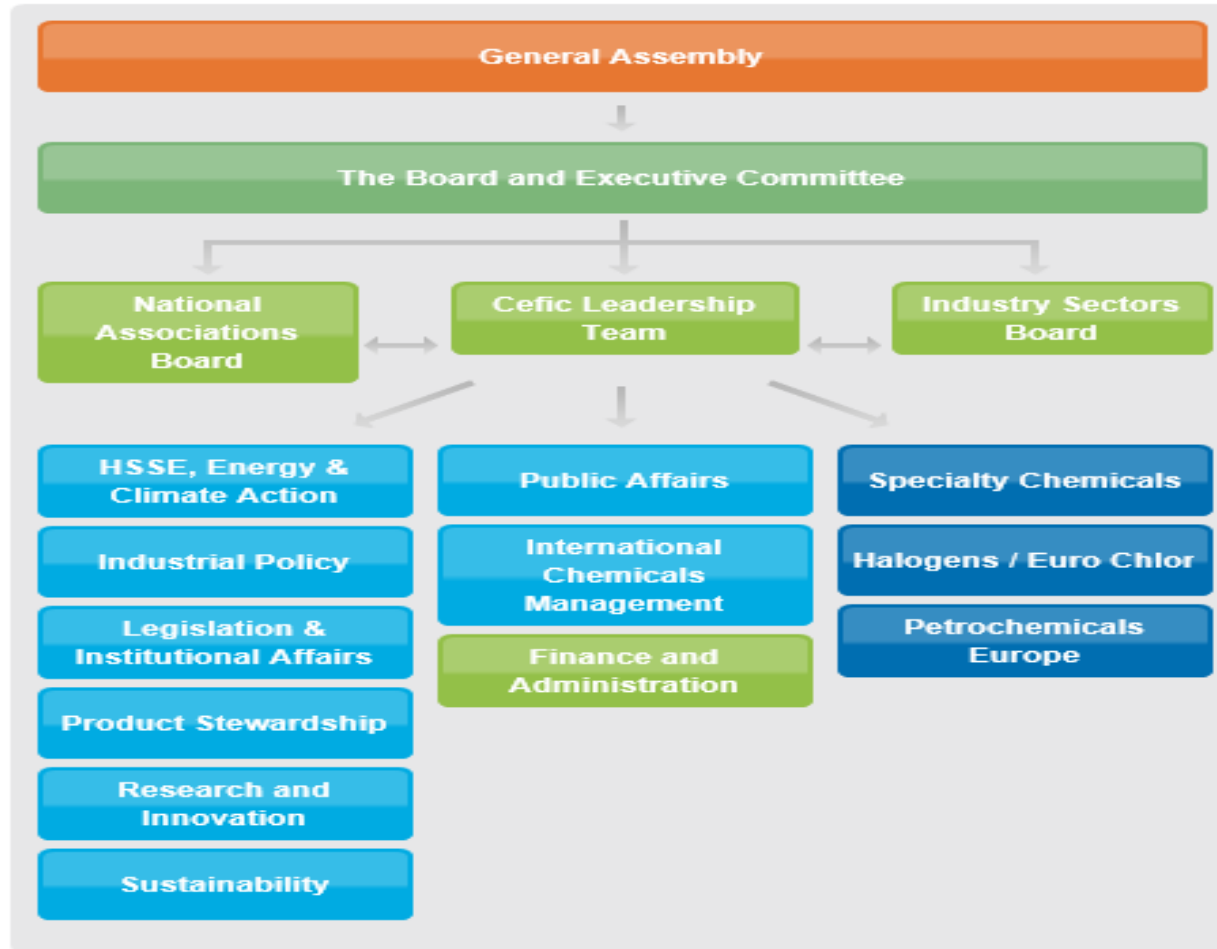
#### **Affiliated Associations**

European Associations representing a sector of the chemical industry.

#### **Partners**

European non-chemical companies working closely with the European chemical industry

# about Cefic



President:  
Hariolf Kottmann

Director General:  
Marco Mensink



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# Reporting of P&PS KPIs





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# Databases accessible to Industry

## Incidents





**INRS**

The French national research institute for safety (INRS) holds the EPICEA database, which provides 17 000 detailed "workplace accidents".




**ERA – European Railway Agency**

The european railway agency publishes reports on railway accidents in europe (in english).



**ILITY (Finlande)**

The finish database ILITY gathers accidents worldwide ("database" in english, but without any search engine).



**FACTS (Pays-bas)**

FACTS is a database which contains information on more than 24000 (industrial) accidents (incidents) involving hazardous materials or dangerous goods worldwide. (restricted access)



**ZEMA**

The ZEMA database (Zentrale Melde- und Auswertestelle für Störfälle und Störungen in verfahrenstechnischen Anlagen) centralises informations on accidents in Germany. The database is in German.



**ARIA : Lessons learnt from industrial accidents**  
Collect, analyze, inform

ARIA  
d g p r e t b a r p i



**NTSB**  
An Independent United States Federal Government Agency



Process Safety  
**Beacon**



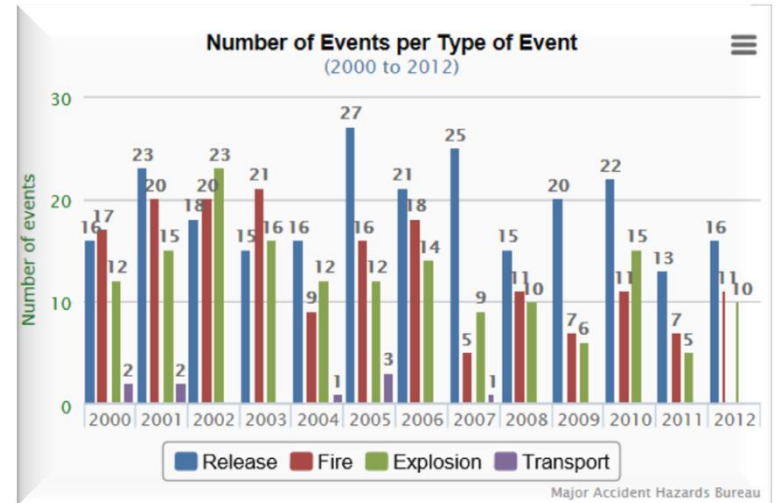
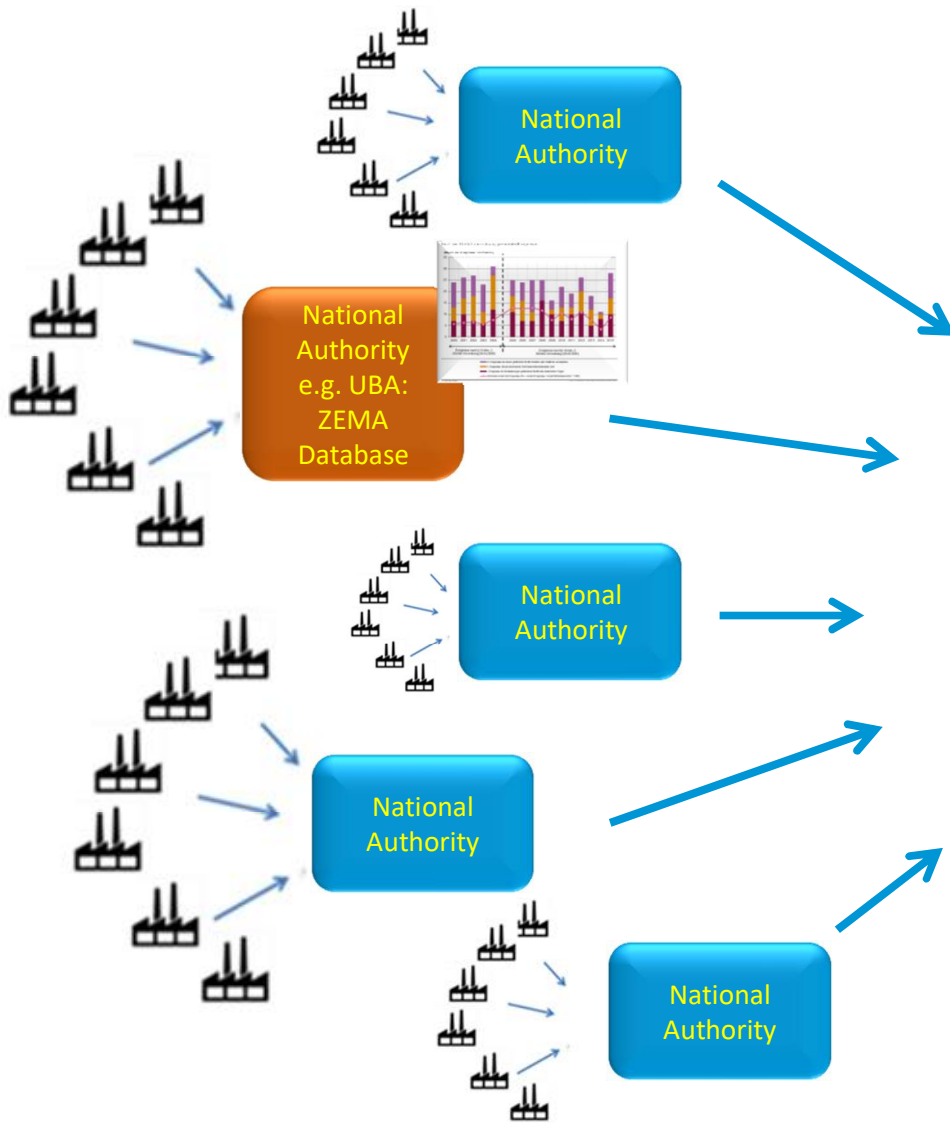
**CSB**  
U.S. Chemical Safety Board

Relational Information System for  
**RISCAD**  
Chemical Accidents Database

# Reporting of Major Incidents in Europe



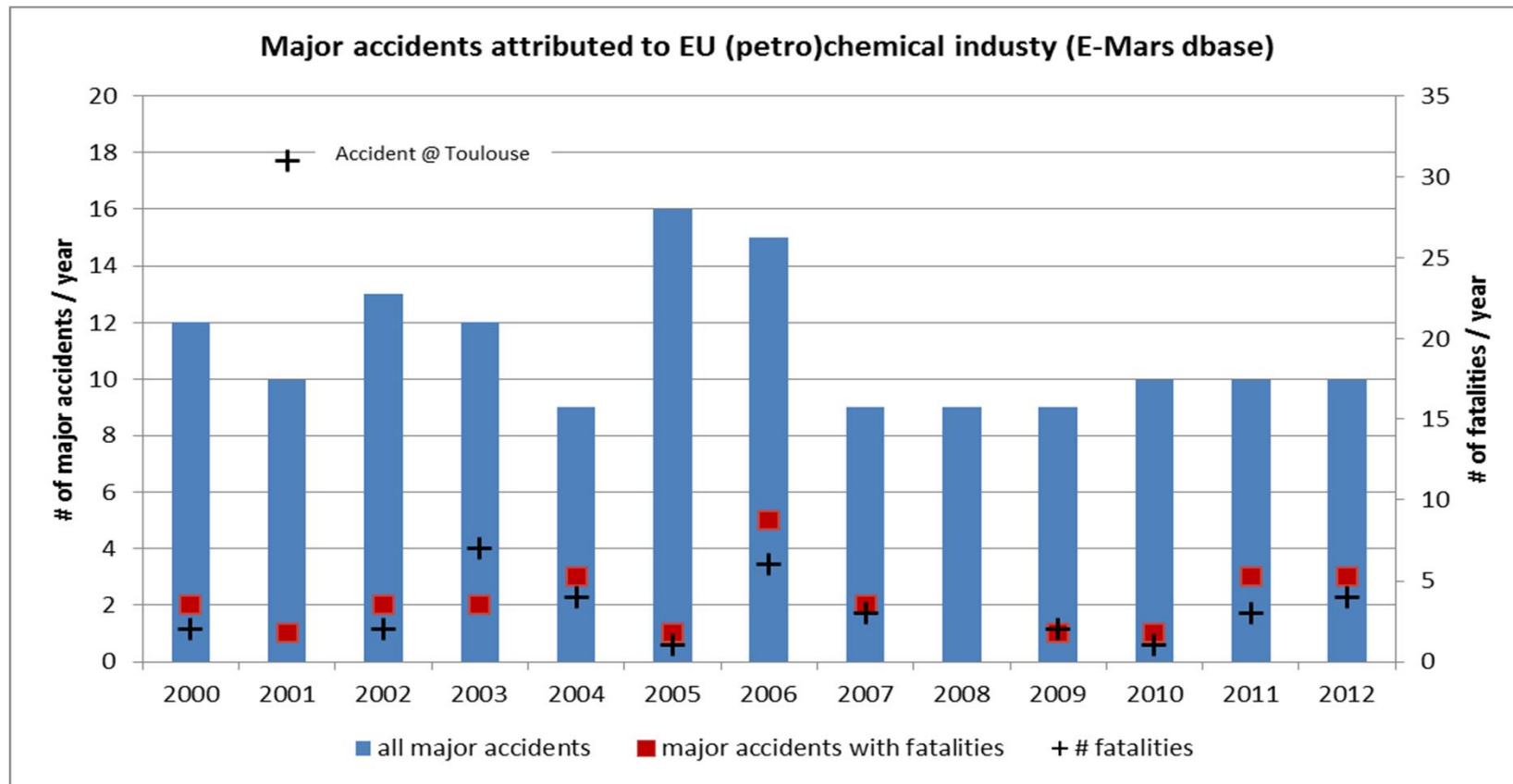
EMARS Database of the Joint Research Centre



# Database –



## E.g. Incidents Attributed to (petro)Chemical Industry



Reporting of Incidents depends on participation  
Not “trending” possible with absolute numbers



## Status Quo



Several Databases

BUT no comprehensive overview

EU-wide reporting

BUT not up-to-date

Completeness questionable

Counting of incidents

BUT no “indicators”

Tracking of trends impossible

Reacting rather than acting

No link between occupational and  
process-safety related incidents

Today we manage a system which allows us to follow  
But not to be PROACTIVE





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# Guidance for the Reporting of Incidents



GUIDANCE FOR REPORTING ON THE ICCA GLOBALLY HARMONIZED PROCESS SAFETY METRIC

June 2016 The Responsible Care® Leadership Group

CEFIC GUIDANCE FOR REPORTING ON THE ICCA GLOBALLY HARMONISED PROCESS SAFETY METRIC

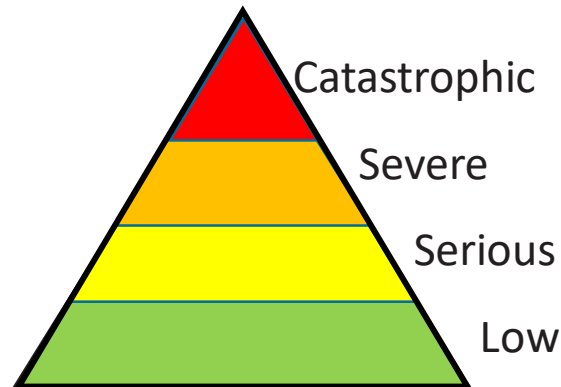
Responsible Care Leadership Group  
June 2016

# Force issued in 2016: Comprehensive database across EU



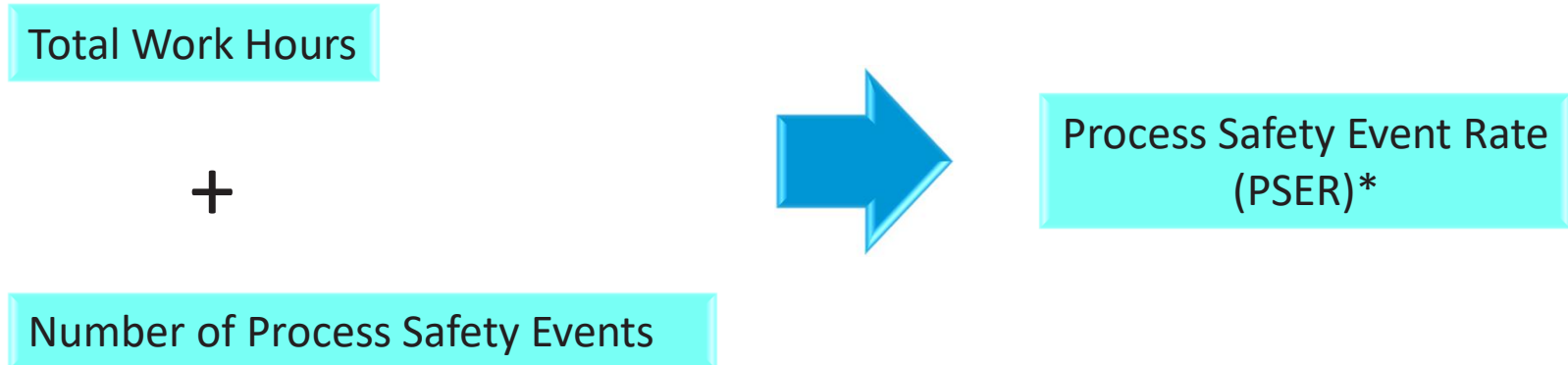
## “ Comprehensive reporting of process safety incidents

- **Bottom-up** approach → all member companies to report
- Develop **Indicators** (PPS KPIs) → independent of participation
- (Leading instead of lagging) → discover trends
- Using Resp. Care database → build up on existing structure



You cannot control what you do not know

# Just Two Numbers



\* PSER: NORMALIZED per 100 employees, working 2000 hrs/yr

$PSER = (Total\ Events / Total\ Hours) \times 200.000$

# Total Work Hours



Total Work Hours

=

Total number  
of employee\* hours

+

Total number  
of contractor\* hours

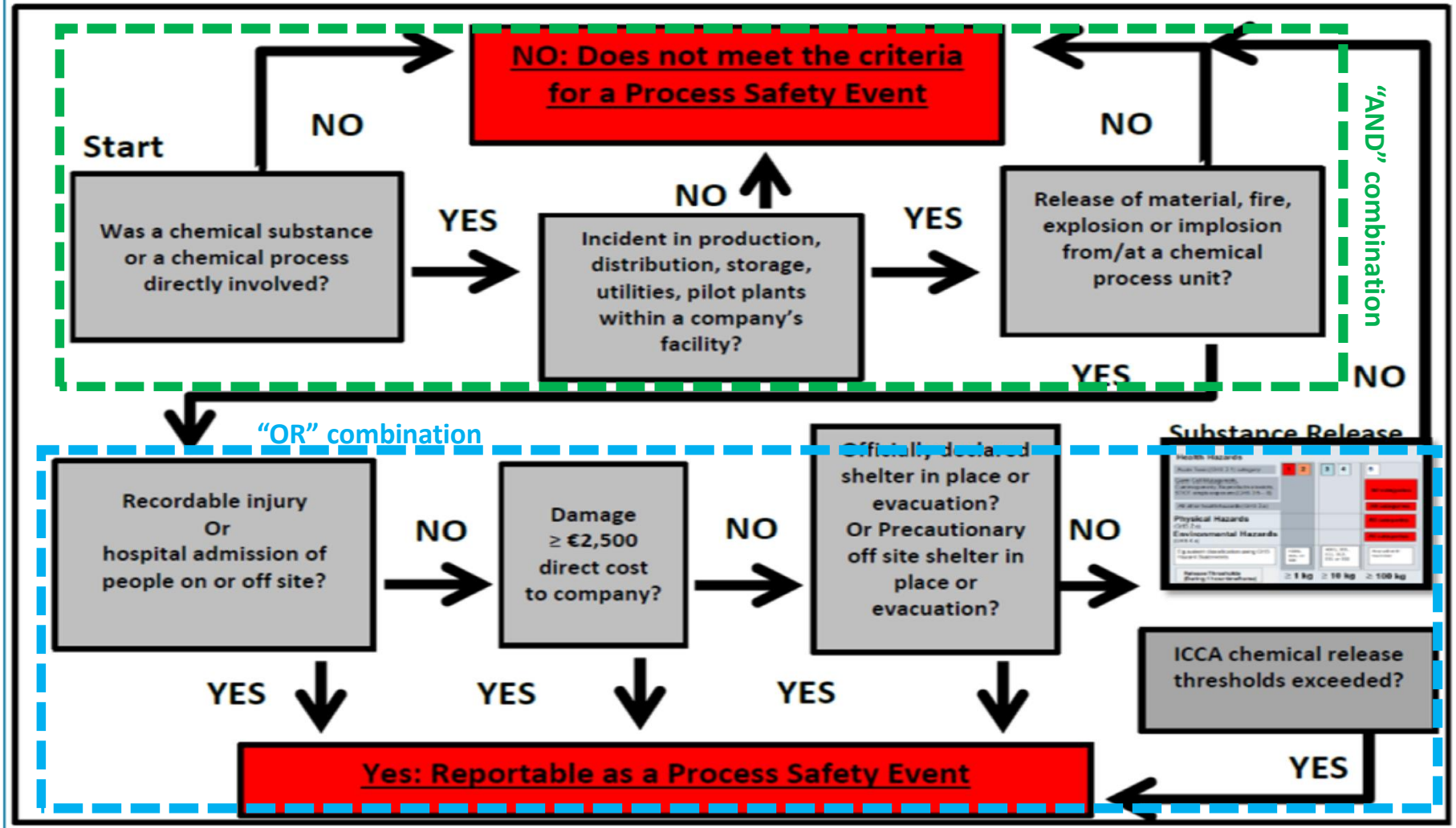
\* **INCLUDES: All individuals** who are involved with chemical manufacturing. When reporting total worker hours, companies should report the same hours used for reporting **personnel hours**. This way, companies can have the same data set for occupational and process safety

\* **EXCLUDES: All individuals** who are tasked with major construction projects such as large scale investments with specific, one-time project organizations created for design, engineering, and construction of new or significant expansion to existing process facilities

# Process Safety Events



Overview of ICCA Process Safety Event Criteria as a Flow Chart



Reporting of ALL levels of Process Safety Incidents

# Process Safety Events



## Overview of ICCA Process Safety Event Criteria as a Flow Chart

Was a chemical substance  
or a chemical process  
directly involved?

Reporting of ALL levels of Process Safety Incidents



## **A. Chemical Involvement**

*When a chemical substance or chemical process is directly involved*

A chemical or chemical process must have been directly involved in the event or incident. For this purpose, the term "process" is used broadly to include the equipment and technology needed for petrochemical production, including reactors, tanks, piping, boilers, cooling towers, refrigeration systems, etc.

### **Not included are consequently:**

Incidents not related to chemical

Incidents e.g. fires in office buildings (even if at a production site)



# Process Safety Events



## Overview of ICCA Process Safety Event Criteria as a Flow Chart

Incident in production,  
distribution, storage,  
utilities, pilot plants  
within a company's  
facility?

Reporting of ALL levels of Process Safety Incidents

# The Incident



## **B. Location**

*The incident occurred in production, distribution, storage, utility, pilot plant within the site boundaries of company's facility*

The incident occurs in production, distribution, storage (including active storage areas such as warehouses – see FAQ section), utilities or pilot plants of a facility reporting metrics under these definitions. This includes tank farms, ancillary support areas (e.g., boiler houses and waste water treatment plants) and distribution piping under control of the site. All reportable incidents occurring at a location will be reported by the company that is responsible for operating that location. This applies to incidents that may occur in contractor work areas as well as other incidents. At tolling operations and multi-party sites, the company that operates the unit where the incident initiated should record the incident and count it in their reporting.

### **Not included are consequently:**

Transportation incidents (on the road, rail, water or air)

# Process Safety Events



## Overview of ICCA Process Safety Event Criteria as a Flow Chart

Release of material, fire,  
explosion or implosion  
from/at a chemical  
process unit?

Reporting of ALL levels of Process Safety Incidents

# Material” means....:



**Release of Material** – an unplanned or uncontrolled release of any material, including non-toxic and non-flammable materials (e.g. steam, hot water, nitrogen, compressed CO<sub>2</sub> or compressed air), from a process that results in consequences that exceed one or more of the 4 Reporting Thresholds listed in this document.

A release to a flare or scrubber is still considered to be within the primary containment as long as the mitigation system (e.g. scrubber, flare) is operated under normal conditions without any release above the thresholds defined for normal operation. A release to a secondary containment (e.g. waste water treatment or dike) will qualify as a process safety event because the substance is leaving the primary process system.

**Not included are consequently:**

E.g. a release through a flare (if release is within permissible thresholds)

# Process Safety Events



## Overview of ICCA Process Safety Event Criteria as a Flow Chart

Recordable injury  
Or  
hospital admission of  
people on or off site?

Reporting of ALL levels of Process Safety Incidents

# Injury” means....:



**Recordable injuries** (Recordable injuries according to OSHA) are work-related injuries that results in any of the following: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, loss of consciousness, or a significant injury diagnosed by a physician or other licensed health professional.

**Lost time injuries** and fatalities that occur as a result of process related loss of primary containment, fire, or explosion are those that fit into one of the following categories:

- Employee (Lost time and/or Fatality)
- Contractor and Subcontractor (Lost time and/or Fatality)
- Third Party (Injury/illness resulting in Hospital Admission or Fatality)

**Hospital Admission** – formal acceptance by a hospital or other inpatient health care facility of a patient who is to be provided with room, board, and medical service in an area of the hospital or facility where patients generally reside at least overnight. Treatment in the hospital emergency room or an overnight stay in the emergency room would not by itself qualify as a “hospital admission.”

Involving  
a  
substance

## **Not included are consequently:**

Trips or falls, cuts or lacerations  
Fire in an office building  
Traffic accidents.....

# Process Safety Events



## Overview of ICCA Process Safety Event Criteria as a Flow Chart

Damage  
≥ €2,500  
direct cost  
to company?

Reporting of ALL levels of Process Safety Incidents





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Costs to be considered for this threshold should be those costs directly attributed to the fire and/or explosion, such as the replacement value of equipment lost, structures lost, cost of repairs, environmental cleanup (on and off site), emergency response and/or fines.

**Not included are consequently:**

Indirect costs, e.g:

Loss of profits, loss of business

Costs of replacement products .....

# Process Safety Events



## Overview of ICCA Process Safety Event Criteria as a Flow Chart

Officially declared  
shelter in place or  
evacuation?  
Or Precautionary  
off site shelter in  
place or  
evacuation?

Reporting of ALL levels of Process Safety Incidents

## “Shelter in place” means....:



**Officially Declared** – A declaration by a recognized community official (e.g. fire, police, civil defense, emergency management) or delegate (e.g. Company official) authorized to order the community action (e.g. shelter-in-place, evacuation).

**Precautionary Declaration** - A precautionary public response is a measure taken from an abundance of caution and issued by a recognized community official or delegate whom has reasonably determined that such an evacuation or shelter in place was necessary to protect the public health and safety.

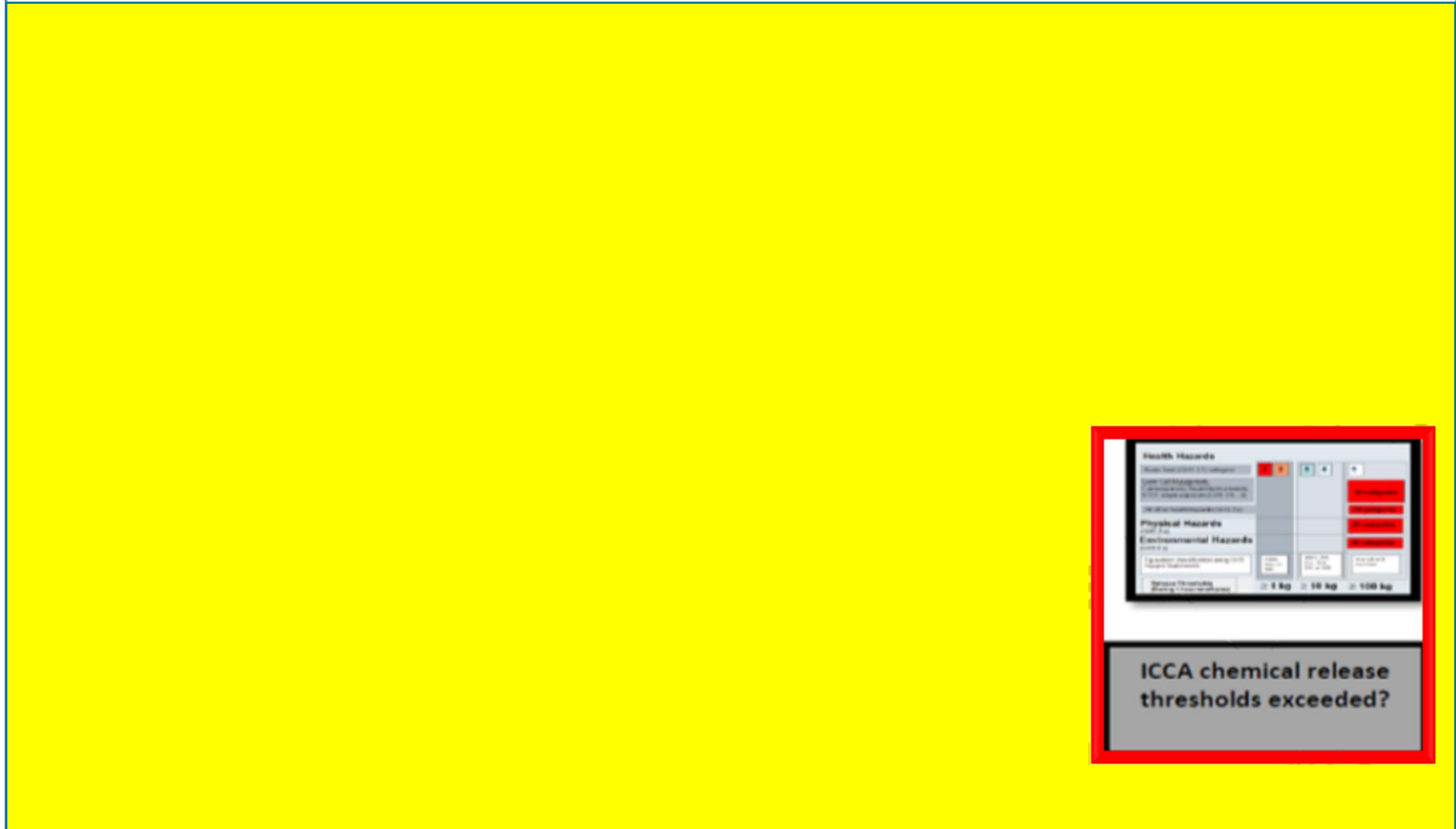
**Shelter in Place** – is the use of a structure and its indoor atmosphere to temporarily separate individuals from a hazardous outdoor atmosphere

**Evacuation** – the act or process of removing persons from a place for reasons of safety or protection

# Process Safety Events



## Overview of ICCA Process Safety Event Criteria as a Flow Chart



The screenshot shows a software interface with several sections: "Health Hazards", "Physical Hazards", and "Environmental Hazards". Each section has a red "Exceeded" button. Below the interface is a grey box with the text "ICCA chemical release thresholds exceeded?".

Reporting of ALL levels of Process Safety Incidents

re....:



**Acute Release** – A release of flammable, combustible, or toxic chemicals from the primary containment (i.e., vessel or pipe) greater than the chemical release threshold quantities is described for GHS Classification **Table 1**.

**Primary Containment** – A tank, vessel, pipe, rail car or equipment intended to serve as the primary container or used for the transfer of the material. Primary containers may be designed with secondary containment systems to contain and control the release. Secondary containment systems include, but are not limited to, tank dikes, curbing around process equipment, drainage collection systems into segregated oily drain systems, the outer wall of double walled tanks, etc.

**This consequently also means:**

If a substance has left the PRIMARY containment but is captured in the SECONDARY Containment, this is still a RELEASE

re....:



**Pressure Relief Device:** Acute Releases, defined above, **include** releases to a properly designed and operating pressure relief device if a quantity is released greater than or equal to the threshold quantities in **Table 1** that results in one or more of the following four consequences:

1. Rainout;
2. Discharge to a potentially unsafe location;
3. A n on-site shelter-in-place or on-site evacuation, excluding precautionary on-site shelter-Ain-place or on-site evacuation;
4. Public protective measures (e.g., road closure) including precautionary public protective measures.

**Not included are consequently:**

- “ Draining equipment on purpose
- “ Routine emissions allowed under permit (e.g. off-gases, waste water
- “ Underground releases

# sholds



<b>Health Hazards</b>				
	<b>1</b>	<b>2</b>	<b>3</b> <b>4</b>	<b>5</b>
Acute Toxic (GHS 3.1) category:				
Germ Cell Mutagenicity, Carcinogenicity, Reproductive toxicity, STOT-single exposure (GHS 3.5 – 8)				<b>All categories</b>
All other health hazards (GHS 3.x)				<b>All categories</b>
<b>Physical Hazards</b> (GHS 2.x)				<b>All categories</b>
<b>Environmental Hazards</b> (GHS 4.x)				<b>All categories</b>
Equivalent classification using GHS Hazard Statements:	H300, 310, or 330		H301, 302, 311, 312, 331 or 332	Any other H-Number
<b>Release Thresholds</b> (During 1 hour timeframe)	<b>≥ 1 kg</b>	<b>≥ 10 kg</b>	<b>≥ 100 kg</b>	

### 1 Hour Rule

For the purpose of the reporting under this metric, release thresholds are established for materials over a one-hour time frame. If the release amount of a material reaches or exceeds the reporting threshold in a 1-hour time period or less, it is reportable. Typically, acute releases occur in 1-hour or less. If the duration of the release cannot be determined, the duration should be assumed to be 1 hour.



# ighting System



## Appendix A – Severity Table: Using A Severity Weighting System is Encouraged for All Associations

	Event Incident Categories				
Severity Level	Safety/Human Health	Direct Cost from Fire or Explosion	Material Release Within 1-Hr Period	Community Impact	Environmental Impact [off-site]
Level 4 1 point	<ul style="list-style-type: none"> <li>Injury requiring treatment beyond first aid to an employee, contractor, or subcontractor.</li> </ul> <p>(Meets local regulations)</p>	<ul style="list-style-type: none"> <li>Resulting in Direct Damage Cost of</li> </ul> <p>€2.5 K ≤ up to €25 K</p>	<ul style="list-style-type: none"> <li>Release volume between</li> </ul> <p>1x ≤ TQ &lt; 40x</p>	<ul style="list-style-type: none"> <li>Officially declared shelter-in-place or officially declared evacuation (on or off site)</li> <li>Precautionary off site shelter in place or evacuation</li> </ul> <p>≤ 3 hours</p>	<ul style="list-style-type: none"> <li>Acute Environmental Remediation Cost</li> </ul> <p>€2.5 K ≤ up to €25 K</p>
Level 3 3 points	<ul style="list-style-type: none"> <li>Days Away From Work injury to an employee, contractor, or subcontractor, or</li> <li>Injury requiring treatment beyond first aid to a third party (Meets local regulations)</li> </ul>	<ul style="list-style-type: none"> <li>Resulting in Direct Damage Cost of</li> </ul> <p>€25 K ≤ up to €250 K</p>	<ul style="list-style-type: none"> <li>Release volume between</li> </ul> <p>40x ≤ TQ &lt; 160x</p>	<ul style="list-style-type: none"> <li>Officially declared shelter-in-place or officially declared evacuation (on or off site)</li> <li>Precautionary off site shelter in place or evacuation</li> </ul> <p>3 hours ≥ up to 12 hours</p>	<ul style="list-style-type: none"> <li>Acute Environmental Remediation Cost</li> </ul> <p>€25 K ≤ up to €250 K</p>
Level 2 9 points	<ul style="list-style-type: none"> <li>A fatality of an employee, contractor, or subcontractor, or</li> <li>A hospital admission of a third party</li> </ul> <p>(Meets local regulations)</p>	<ul style="list-style-type: none"> <li>Resulting in Direct Damage Cost of</li> </ul> <p>€250 K ≤ up to €25 MM</p>	<ul style="list-style-type: none"> <li>Release volume between</li> </ul> <p>160x ≤ TQ &lt; 640x</p>	<ul style="list-style-type: none"> <li>Officially declared shelter-in-place or officially declared evacuation (on or off site)</li> <li>Precautionary off site shelter in place or evacuation</li> </ul> <p>12 hours ≥ up to 24 hours</p>	<ul style="list-style-type: none"> <li>Acute Environmental Remediation Cost</li> </ul> <p>€250 K ≤ up to €25 MM</p>
Level 1 27 points	<ul style="list-style-type: none"> <li>Multiple fatalities of employees, contractors, or subcontractors, or</li> <li>multiple hospital admission of third parties, or</li> <li>A fatality of a third party (Meets local regulations)</li> </ul>	<ul style="list-style-type: none"> <li>Resulting in Direct Damage Costs of</li> </ul> <p>≥ €25 MM</p>	<ul style="list-style-type: none"> <li>Release volume</li> </ul> <p>≥ 640x TQ</p>	<ul style="list-style-type: none"> <li>Officially declared shelter-in-place or officially declared evacuation (on or off site)</li> <li>Precautionary off site shelter in place or evacuation</li> </ul> <p>≥ 24 hours</p>	<ul style="list-style-type: none"> <li>Acute Environmental Remediation Cost</li> </ul> <p>≥ €25 MM</p>



# Metrics (No Mandatory Reporting)

**Process Safety Total Incident Rate (PSTIR):** 
$$\frac{\text{Total event incidents} \times 200,000}{\text{Total Worker Hours}}$$

**Process Safety Incident Severity Rate (PSESR) (i.e., severity-weighted Process Safety incident rate formula):**

**PSESR =** 
$$\frac{\text{Total severity score for all events incidents} \times 200,000}{\text{Total Worker Hours}}$$

# ighting System



## Determining PSESR:

### Appendix A – Severity Table: Using A Severity Weighting System is Encouraged for All Associations

	Event Incident Categories				
Severity Level	Safety/Human Health	Direct Cost from Fire or Explosion	Material Release Within 1-Hr Period	Community Impact	Environmental Impact [off-site]
Level 4 1 point	<ul style="list-style-type: none"> <li>Injury requiring treatment beyond first aid to an employee, contractor, or subcontractor.</li> </ul> (Meets local regulations) <div style="border: 1px solid red; padding: 2px; display: inline-block; margin-top: 5px;">1</div>	<ul style="list-style-type: none"> <li>Resulting in Direct Damage Cost of</li> </ul> <b>€2.5 K ≤ up to €25 K</b>	<ul style="list-style-type: none"> <li>Release volume between</li> </ul> $1x \leq TQ < 40x$	<ul style="list-style-type: none"> <li>Officially declared shelter-in-place or officially declared evacuation (on or off site)</li> <li>Precautionary off site shelter in place or evacuation</li> </ul> <b>≤ 3 hours</b>	<ul style="list-style-type: none"> <li>Acute Environmental Remediation Cost</li> </ul> <b>€2.5 K ≤ up to €25 K</b>
Level 3 3 points	<ul style="list-style-type: none"> <li>Days Away From Work injury to an employee, contractor, or subcontractor, or</li> <li>Injury requiring treatment beyond first aid to a third party (Meets local regulations)</li> </ul>	<ul style="list-style-type: none"> <li>Resulting in Direct Damage Cost of</li> </ul> <b>€25 K ≤ up to €250 K</b>	<ul style="list-style-type: none"> <li>Release volume between</li> </ul> $40x \leq TQ < 160x$ <div style="border: 1px solid red; padding: 2px; display: inline-block; margin-top: 5px;">3</div>	<ul style="list-style-type: none"> <li>Officially declared shelter-in-place or officially declared evacuation (on or off site)</li> <li>Precautionary off site shelter in place or evacuation</li> </ul> <b>3 hours ≥ up to 12 hours</b>	<ul style="list-style-type: none"> <li>Acute Environmental Remediation Cost</li> </ul> <b>€25 K ≤ up to €250 K</b>
Level 2 9 points	<ul style="list-style-type: none"> <li>A fatality of an employee, contractor, or subcontractor, or</li> <li>A hospital admission of a third party</li> </ul> (Meets local regulations)	<ul style="list-style-type: none"> <li>Resulting in Direct Damage Cost of</li> </ul> <b>€250 K ≤ up to €25 MM</b> <div style="border: 1px solid red; padding: 2px; display: inline-block; margin-top: 5px;">9</div>	<ul style="list-style-type: none"> <li>Release volume between</li> </ul> $160x \leq TQ < 640x$	<ul style="list-style-type: none"> <li>Officially declared shelter-in-place or officially declared evacuation (on or off site)</li> <li>Precautionary off site shelter in place or evacuation</li> </ul> <b>12 hours ≥ up to 24 hours</b>	<ul style="list-style-type: none"> <li>Acute Environmental Remediation Cost</li> </ul> <b>€250 K ≤ up to €25 MM</b>
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For PSESR: 1+9+3+27 = 40



# YOUR Action is required

- “ Comprehensive reporting of incidents is essential to improve process safety
- “ AFEM Members are in the LEAD:
  - ALL AFEM Members:
    - Start/continue setting up national reporting
    - Initiate national workshops with member companies
  - ALL Companies:
    - Start/continue providing data to your national association

## Within Cefic:

- “ Program Council (PC) HSSE endorses the reporting
  - Member companies: insist on reporting to your association
  - Request reporting to PC, NAB and AFEM meeting on a quarterly basis

**Comprehensive Reporting Starts NOW**  
**Reporting established by 2020**



# ng Schedule 2016-2020

## Appendix D - Detailed Schedule of Events

2016	2017	2018	2019	2020
<p><b>Feb - April</b> <i>RCLG PS Pilot Program</i></p> <p>May – Adjustments/clarification to guidance document</p> <p><b>June</b> Report outcomes of pilot program to RCLG and ICCA Board</p> <p><b>July - December</b></p> <ul style="list-style-type: none"> <li>RCLG associations consider guidance and develop reporting methodology for their memberships</li> <li>RCLG associations can request ICCA capacity building funds for PS reporting workshops for members, if needed</li> </ul>	<p><b>Jan - Dec</b> RCLG Association membership begin collecting PS data from their members</p> <p><b>Jan – Dec</b> Associations hold workshops on Process Safety and performance reporting, utilizing RCLG funds and experts if needed</p>	<p><b>Jan – Feb</b> Reporting of process safety incidents to RCLG begins for associations with data (2017 data)</p> <p><b>April</b> RCLG reviews outcomes, challenges and raw data from the first reporting cycle (internally)</p> <p><b>June</b> RCLG share draft data with ICCA Board</p> <p><b>July - December</b> Update and adjust guidance as necessary</p> <p>Associations hold workshops on Process Safety and performance reporting, utilizing RCLG funds and experts if needed</p>	<p><b>Jan – Feb</b> Reporting of process safety incidents to RCLG begins for associations with data (2018 data)</p> <p><b>April</b> RCLG reviews outcomes, challenges and raw data from the second reporting cycle (internally)</p> <p><b>June</b> RCLG share draft data with ICCA Board</p> <p><b>July - December</b> Update and adjust guidance as necessary</p> <p>Associations hold workshops on Process Safety and performance reporting, utilizing RCLG funds and experts if needed</p>	<p><b>Jan – Feb</b> Reporting of process safety incidents to RCLG begins for <b>all associations</b></p> <p>Process Safety incident reporting becomes part of the recommend base set of RCLG KPI metrics (2019 data)</p> <p><b>April</b> RCLG reviews outcomes, challenges and raw data from the second reporting cycle (internally, consider external reporting)</p> <p><b>June</b> RCLG share draft data with ICCA Board</p>

**Comprehensive Reporting Starts NOW**  
Reporting established by 2020




# Guidance now online



The new ICCA Guidance and its application by Cefic can be found on Cefic's Responsible Care Platform:

<http://www.cefic.org/Industry-support/Responsible-Care-tools-SMEs/3-Plant--Process-Safety/>



Home > Industry Support > Responsible Care for SMEs > Plant & Process Safety

**Plant & Process Safety** Get Adobe Reader

Prevention of chemical accidents in plants and processes

Tools in this category help companies implementing effective process safety management systems for chemical accident prevention, preparedness and response. They Tools enable the identification, elimination, reduction and mitigation of risks resulting from operations.

Showing 1 to 5 of 5 in order of most recently published Show all

## Cefic Guidance on Process Safety Indicators



This new guidance is based on a global ICCA guidance and introduces universally applicable process safety Key Performance Indicators (KPIs). It became effective September 2016. During a period of four years all chemical associations are requested to host national workshops in order to roll out this new guidance in their respective countries. Reporting of these new process safety KPIs has to be established by 2020. This new set of process safety KPIs ensures the transition from lagging to leading indicators as it captures process safety incidents at very low levels already. This is to ensure an increasing awareness of possible trends long before more significant incidents may happen – and to react accordingly.

↓ [Cefic/ICCA Guidance on Process Safety Performance Indicators](#)

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↓ [Original version of the ICCA Process Safety Guidance](#) Share +

↓ [Excel Template for Reporting](#) Share +

Contact: [Stefan Drees](#)

## What we have learned 1/4



A third-party truck loading a flammable product on Company Premises, experiences a leak and subsequent fire and property loss damages of €7,000 (direct costs). Although the truck is "Operated-by-Others", it is connected to the process.

PPS incident ?

YES

NO

The truck, although it does not belong to “your” unit is connected to “your” installation



## See what we have learned



2/4

The same truck as in the example before is about to leave your site when it crashes and spills 1500 l of remaining product.

PPS incident ?

YES

NO

The truck is “in transit” now even though it is still on your property. Transportation incidents are not counted.

## what we have learned 3/4



A faulty tank gauge results in the overfilling of a product tank containing “flammable liquids”. Luckily the spill of approximately 700 kg of liquid overflows into the tank's diked area.

PPS incident ?

YES

NO

The product has left the “primary containment”. The diked area is the secondary containment and hence this is a PPS incident.

## what we have learned 4/4



An operator is walking, then slips and falls to the floor and suffers a lost time injury. The slip/fall is due to weather conditions and slippery shoes.

PPS incident ?

YES

NO

The injury is not related to a product release and hence this is not a PPS incident.

The same operator slips while cleaning up a small (not recordable) spill of a flammable substance. He falls to the floor and suffers a lost time injury.

PPS incident ?

YES

NO

The injury is related to a product release and hence this is a PPS incident.



If you haven't done yet → Please start reporting now

### **Benefits:**

Establish a harmonized and GLOBAL system for all process safety related incidents

Transparent reporting based on NORMALIZED numbers

Leading the process → another major step to achieve further improvement of process safety



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# Thank you

