

Finnish Safety and Chemicals Agency (Tukes)

Tuuli Tulonen | 21.6.2011

Development of the Finnish multi-sectorial accident database VARO

The logo for Tukes, the Finnish Safety and Chemicals Agency, is displayed in a large, white, rounded, lowercase font. The letters are thick and have a slight shadow, giving them a three-dimensional appearance. The logo is centered on a teal-to-white gradient background that is part of a larger rectangular area.

Translations into English on these transparencies are unofficial.
Information may also be incomplete and does not necessarily represent the whole picture.

About Tukes

- The *Finnish Safety and Chemicals Agency* (1.1.2011-)
 - Formerly the Finnish Safety Technology Authority
- Oversight and promotion of technical safety and conformity related to *products, services and production systems, consumer safety, chemical safety and the safety and quality of plant protection products*
- The new Tukes is the *Finnish national agency responsible for chemicals product control* and an important partner of the European Chemicals Agency (ECHA).

VARO: What's going on today

WHOLE DATABASE IS UNDER REVIEW

- What information is collected, how and from whom
 - How could the information be used
 - Reliability of statistics, national comparability
 - International (Nordic?) comparability
 - Etc.
-
- The aim is to "dig in deeper" into the potential of the database: what does the information tell us and how could it be utilized more efficiently.

VARO-database

- Tukes collects information and also investigates accidents that occur in the sectors, which are under its supervision
- The information is inserted into the VARO-database
- The aim is to collect information concerning accidents for surveillance, training and communications
- With statistical information Tukes is able to keep track of the current status and the developments of safety.
- The statistics are also utilized in planning, actions and follow-up on the effectiveness of Tukes activities

Accident database VARO includes

1972

Mine accidents

1978

Accidents related to manufacturing, processing and storage of hazardous chemicals, pressure equipment and explosives

1980

Fatal electrical accidents

1996

All electrical accidents that are reported to Tukes
Elevator accidents

2006

Fatal electrical fires

2010

Database includes ca. 5500 cases, annual increase ca. 400.

?

Main sources of information

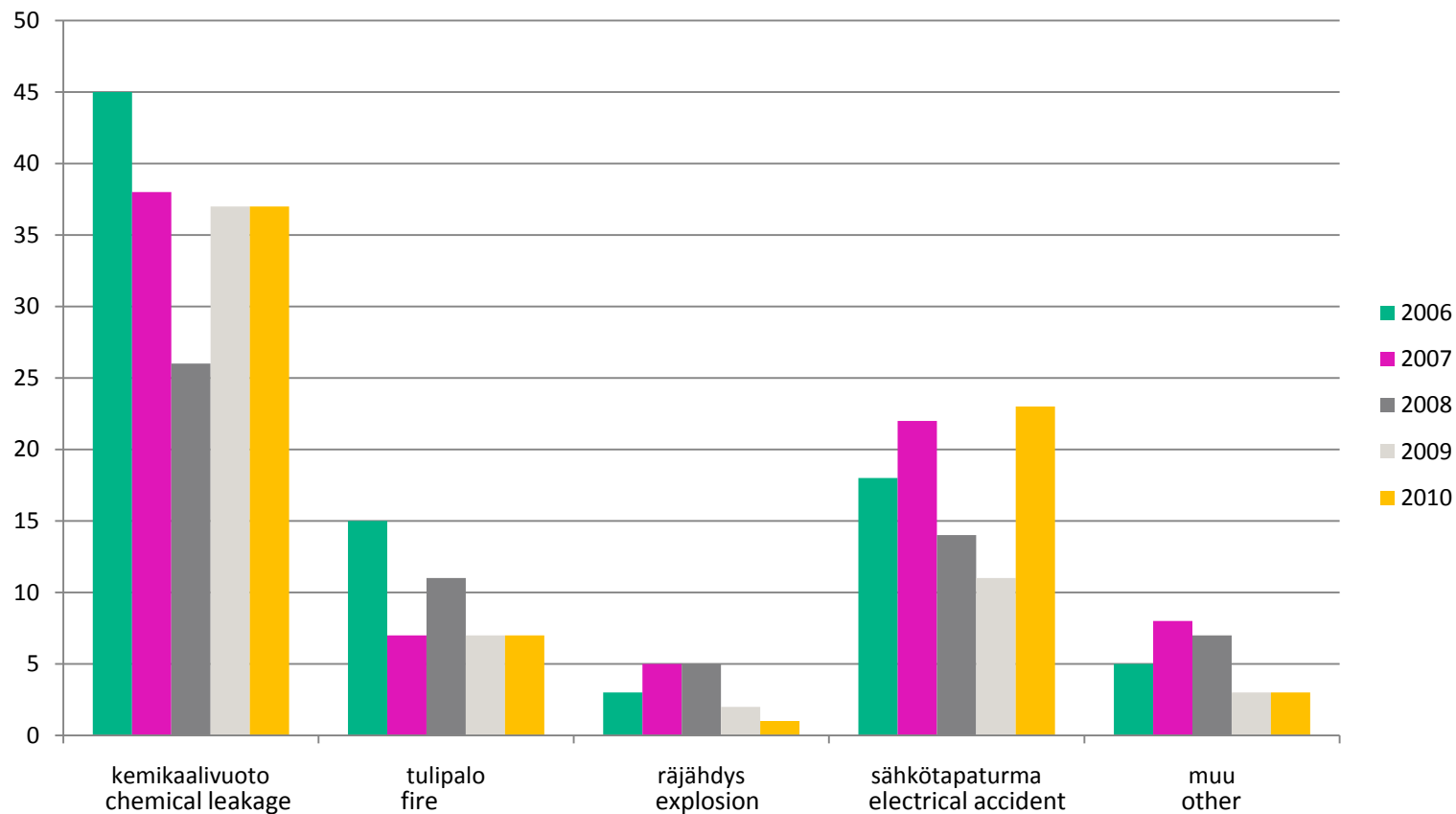
- Accident investigations executed by Tukes (1-4 /year)
- Companies that operate in the sectors supervised by Tukes, and who are obliged by legislation to inform serious accidents directly to Tukes.
 - Obligation mentioned in e.g. chemical, pressure equipment, explosive, mining, and electrical safety legislation
- Other authorities
- Media coverage monitoring

Accidents

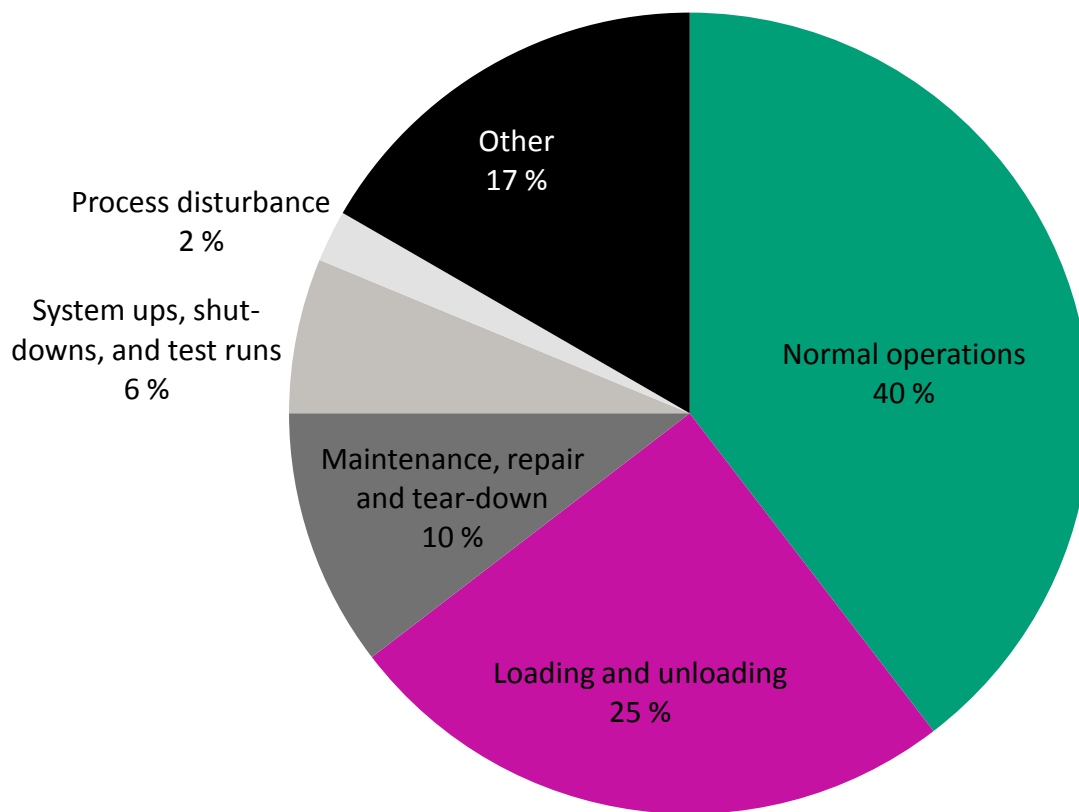
in sectors supervised by Tukes

Accident group	2006	2007	2008	2009	2010
Hazardous chemicals, Tukes' supervised sites	33	37	35	30	20
Hazardous chemicals, other sites	117	91	102	99	82
Liquefied petroleum gas (LPG)	16	11	14	18	14
Natural gas	1	3	-	-	3
Explosives	1	-	2	1	-
Fire works, self-made explosives	24	37	48	57	21
Pressure equipment	14	8	7	7	9
Aerosols	-	-	-	-	-
Fatal electrical fires	24	17	17	22	21
Electrical accidents	57	63	67	67	78
Lifts	2	4	4	4	5
Mining, occupational accidents	27	31	28	17	27
Other mining accidents	-	-	-	2	1
Transportation of hazardous substances	7	7	8	3	8
Total	323	309	331	327	289

Accidents in industry

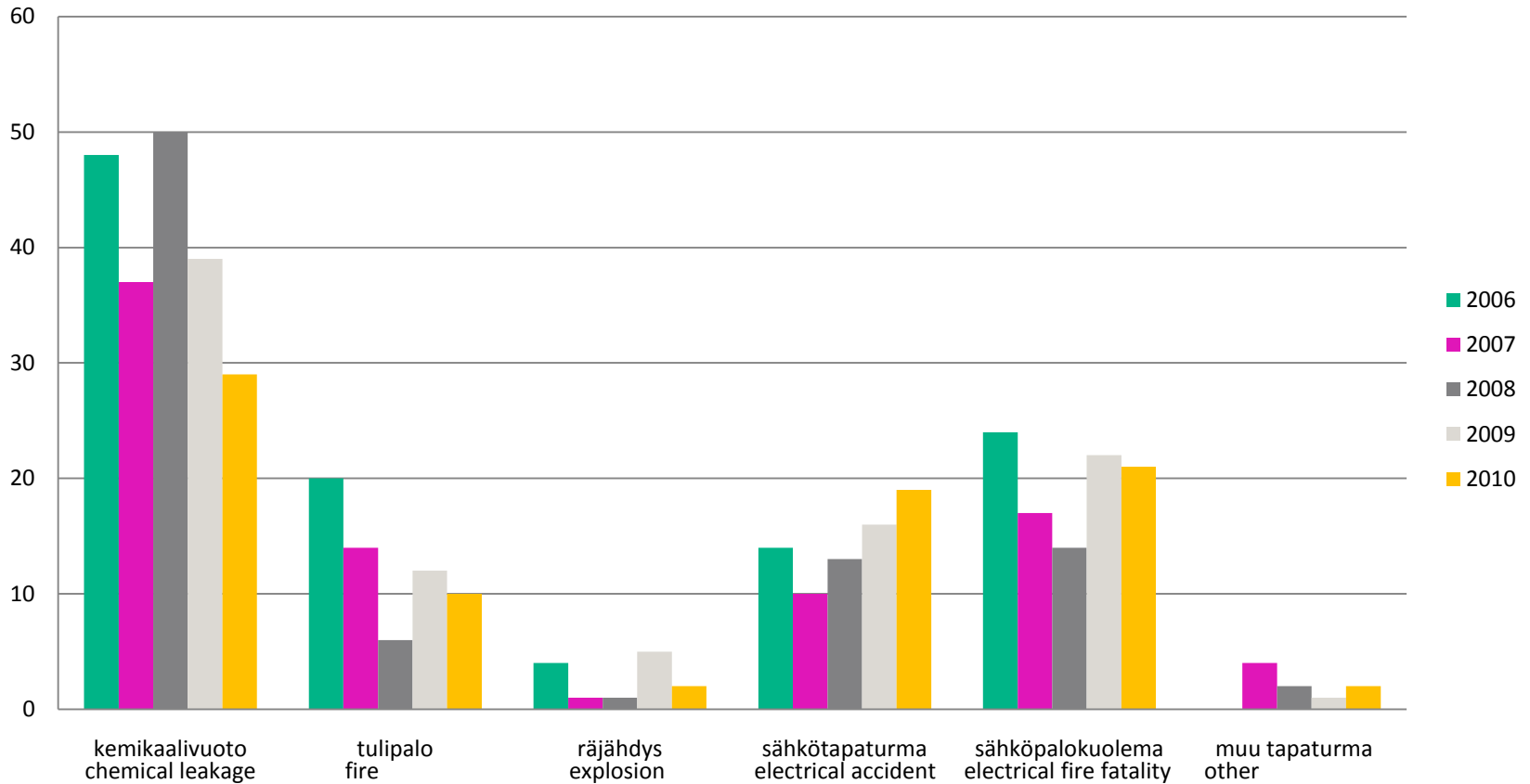


Work phase in accidents in industry 2010



Household accidents

Number and type of most common accidents



Public accident information online

FINNISH SAFETY AND CHEMICALS AGENCY (TUKES)

Varo <http://varo.tukes.fi>

Aloitussivu
Tiedonhaku -
luokittelutiedoista
Sanahaku raporteista
Palaute
Käyttöohjeet
Lopetus

Tapauksen tiedot

Edellinen

Seuraava

Uusi haku

Paluu luettelonäyttöön

Tapaus	4803
Vuosi	2006
Pääryhma	kemikaalit
Tyyppi	nestevuoto
Paikka	puunjalostus, kartonki- ja lastulevytehtaat
Laiteryhmä	paineettomat kiinteät varastosäiliöt
Laite	PUTKI, LETKU
Painelaiteluokka	ei painelaitte/laitteella ei merkitystä painelaitteena
Toiminta	jatkuva prosessi
Työvaihe	NORMAALI KÄYTTÖ / TUOTANTOPROSESSI / TYÖVAIHE
Tekninen syy	Ei teknistä syytä, ei tiedossa
Kuolleet	0
Loukkaantuneet	0
Onnettomuuden kuvaus	<p>LIPEÄVUOTO KARTONKITEHTAALLA</p> <p>Kartonkitehtaan putken huuhteluvesi johdettiin vahingossa natriumhydroksidi-(lipeä-)säiliöön. Säiliö täyttyi ja valui yli. Säiliö sijaitsi kemikaaliosaston katolla usean metrin korkeudessa maan pinnasta. Vedellä laimentunut lipeä valui säiliön ulkopintaa pitkin tehdasalueen asfalttipihalle ja sadevesiviemäriin sekä sitä kautta puhdasvesikanaaliin. 6 000 litraa laimentunutta lipeäliuosta vuoti tehtaan pihalle. Tehtaan henkilökunta ja pelastuslaitos saivat vuodon rajattua ja poistettua.</p> <p>LÄHDE pelastuslaitosten Pronto-järjestelmä</p>

Aine	Määrä	Yksikkö
Natriumhydroksidi (lipeä)		
Vesi, vesihöyry		

Public accident information online

FINNISH SAFETY AND CHEMICALS AGENCY (TUKES)

Varo <http://varo.tukes.fi>

FEDERATION OF ACCIDENT INSURANCE INSTITUTIONS (FAII)

Totti <http://www.tvl.fi/totti>

Public accident information online

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OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

TAPS <http://www.tyosuojelu.fi/fi/tapaturmaselostusrekisteri>

Utilization of accident information

- The aim is to "dig in deeper"
 - What does the information tell us?
 - How could it be utilized more efficiently?

Nordic countries:

- Reliable comparisons between countries (benchmarking?)
- Learning from each others incidents (more systematically)