Update on Safety at CERN

R. Trant
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- Occupational accidents

- Safety training and awareness
Definition of occupational accidents

Occupational accidents for CERN members of the personnel (MP) are classified in two categories:

a. Accidents at work and commuting accidents

b. Commuting accidents are those occurring outside the Organization, on the way to or from the workplace
Evolution of occupational accidents of Users over the last years

**Number of professional accidents of Users**

<table>
<thead>
<tr>
<th>Year</th>
<th>Accidents at work</th>
<th>Commuting accidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>26</td>
<td>14</td>
</tr>
<tr>
<td>2010</td>
<td>24</td>
<td>6</td>
</tr>
<tr>
<td>2011</td>
<td>10</td>
<td>3</td>
</tr>
</tbody>
</table>

**Means of transport for the registered commuting accidents**

<table>
<thead>
<tr>
<th>Year</th>
<th>Commuting accidents</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>10</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

**2011 data until June**

- 2009: 10 accidents
- 2010: 4 (+2 accidents at work)
- 2011: 2 (+1 accident at work)
Occupational accidents of Users - comparison of 2009 and 2010 data Percentage by nature of the professional accidents of Users

- Vehicles: 30.0% (2009), 8.3% (2010)
- Collision in the workplace, false movement: 15.0% (2009), 16.7% (2010)
- Objects being manipulated / manual handling: 15.0% (2009), 16.7% (2010)
- Fall on same level (slip/trip): 10.0% (2009), 10.0% (2010)
- Hand tools: 6.7% (2009), 6.7% (2010)
- Objects, masses, accidental moving particles: 6.7% (2009), 6.7% (2010)
- Fall from height: 6.7% (2009), 6.7% (2010)
- Electricity: 3.3% (2009), 3.3% (2010)
- Refrigerating / Cryogenic equipment and installations: 3.3% (2009), 3.3% (2010)
- Machines / Fixed machine tools: 3.3% (2009), 3.3% (2010)
- Chemicals: 5.0% (2009), 5.0% (2010)
Reporting of accidents

Victim or witness to an accident, incident or a near miss (at work or on the way to work), you have an **obligation** to fill out an accident report straight away (Do not delay and do not underestimate it).

**How to declare an accident?**
An EDH document called “Internal Accident Report” exists:

**Accident report**
Basic safety tips for cyclists

- wear a helmet: CERN stores (SCEM 70.05.12.A)
- be seen: wear bright clothes.
- make sure: nothing can get caught in your bike chain
  (such as loose trouser legs, backpack- straps, shoelaces or scarves)
- wear the right shoes
- stay legal: respect CERN traffic rules (Code A7)
- Parking: respect French and Swiss law regulating road traffic
  park your bike in the bicycle sheds, do not obstruct passages


In case of emergency call: 74444 (Cern Fire Brigade)
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- Occupational accidents
- Safety training and awareness
Safety Training & Awareness

Compulsory for Everybody

E-Learning
SIR Application
http://sir.cern.ch/

Classroom courses
CERN Training Catalogue

Basic Safety
Specific Risks
Underground controlled access areas

Radiological Safety
Health & Safety at work
Electrical Safety
Chemical Safety
First Aid
Lifting – Handling
Scaffolding
## E-Learning – SIR Application

<table>
<thead>
<tr>
<th>Activity</th>
<th>Personnel concerned</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tertiary activities</td>
<td>&quot;Administrative&quot;: office work, etc.</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>&quot;On site&quot; activities</td>
<td>All professional categories other than the administrative category: manual work, work in hazardous areas, etc.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>Activities in underground areas</td>
<td>All professional categories</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

- Available on web site [http://sir.cern.ch](http://sir.cern.ch) from any computer on or off the CERN site
- If you do not have a CERN account, available at the kiosks on the first floor of the Building 55 from 7.30 a.m to 4.00 p.m
## E-Learning statistics for users

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011 (until June)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of courses successfully passed by USERS</strong></td>
<td>4323</td>
<td>3856</td>
<td>1276</td>
</tr>
<tr>
<td><strong>Basic Safety (Level 1 &amp; 2)</strong></td>
<td>1130</td>
<td>1052</td>
<td>265</td>
</tr>
<tr>
<td><strong>Specific Risks (Level 3)</strong></td>
<td>843</td>
<td>607</td>
<td>170</td>
</tr>
<tr>
<td><strong>LHC Machine (Level 4)</strong></td>
<td>568</td>
<td>501</td>
<td>202</td>
</tr>
<tr>
<td><strong>ATLAS Safety (Level 4A)</strong></td>
<td>880</td>
<td>647</td>
<td>218</td>
</tr>
<tr>
<td><strong>LHCb Safety (Level 4b)</strong></td>
<td>389</td>
<td>400</td>
<td>181</td>
</tr>
<tr>
<td><strong>CMS Safety (Level 4C)</strong></td>
<td>370</td>
<td>510</td>
<td>181</td>
</tr>
<tr>
<td><strong>Electrical Safety Awareness</strong></td>
<td>143</td>
<td>139</td>
<td>59</td>
</tr>
</tbody>
</table>
### Classroom courses statistics for users

#### TRAINING PARTICIPANTS

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011 (until June)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USERS</td>
<td>896</td>
<td>827</td>
<td>291</td>
</tr>
<tr>
<td>TOTAL (all status)</td>
<td>3016</td>
<td>3160</td>
<td>1021</td>
</tr>
<tr>
<td>% of users</td>
<td>30%</td>
<td>26%</td>
<td>29%</td>
</tr>
</tbody>
</table>
Focus on

- Self-rescue mask training
  - The **self-rescue mask training** is required for everybody at CERN who needs to access the LHC tunnel (mandatory from 1 December 2010) and is **compulsory to access the SPS tunnel and CNGS underground facilities** (from 1 June 2011).
  - The self-rescue mask training (CMS sessions) is mandatory for accessing the UXC55 cavern from Monday 4th of April 2011 and for accessing the USC55 cavern from the beginning of June 2011.

- Radiation protection course
  - Participation in a **radiation protection course** (provided by CERN) is **mandatory to access Radiation Areas** and to obtain CERN dosimeters.
A pro-active & corporate integrated Safety approach for the benefit of CERN

Thank you for your collaboration
Radiation Protection And Radiation Safety: CERN And Its Host States To Sign A Tripartite Agreement

On 15 November CERN and its Host States will sign a tripartite agreement that replaces the existing bilateral agreements in matters of radiation protection and radiation safety at CERN. It will provide, for the first time, a single forum where the three parties will discuss how maximum overall safety can best be achieved in the specific CERN context.

CERN’s occupational Health & Safety and Environmental protection Unit

The Occupational Health & Safety and Environmental Protection (HSE) Unit is the driving force behind CERN’s Safety Policy. A corporate and preventive Safety culture is promoted. In its role as the Organisation’s centre of competence in matters of Safety, the HSE Unit provides support to all parts of the Organisation. Meeting CERN’s Safety objectives requires the Unit to adopt a highly service orientated approach for both the radiological and conventional safety domains. Complementing its internal duties the HSE Unit coordinates CERN’s HSE matters with the respective host states bodies.

HSE Unit Communications

15-11-2010 - Radiation protection and radiation safety: CERN and its host states to sign a tripartite agreement
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04-10-2010 - RAMSES stands guard over the accelerator chain
RAMSES, the system that is used to monitor radiation at the LHC, CNGS, CTF3 and n-TOF facilities, will soon be installed at strategic points in the accelerator chain, replacing the older monitoring system ARCON. The replacement programme has already begun.

20-09-2010 - Success of the HSE seminar held on 22 September 2010
The first HSE seminar took place on 22 September in building 40. About 30 HSE professionals from the HSE Unit and the departments listened to a presentation by MBR Dr. Thierry Meyer and Dr. Amelia Gross of the department of basic sciences at EPFL.