

---

# Safety in the accelerators...

---

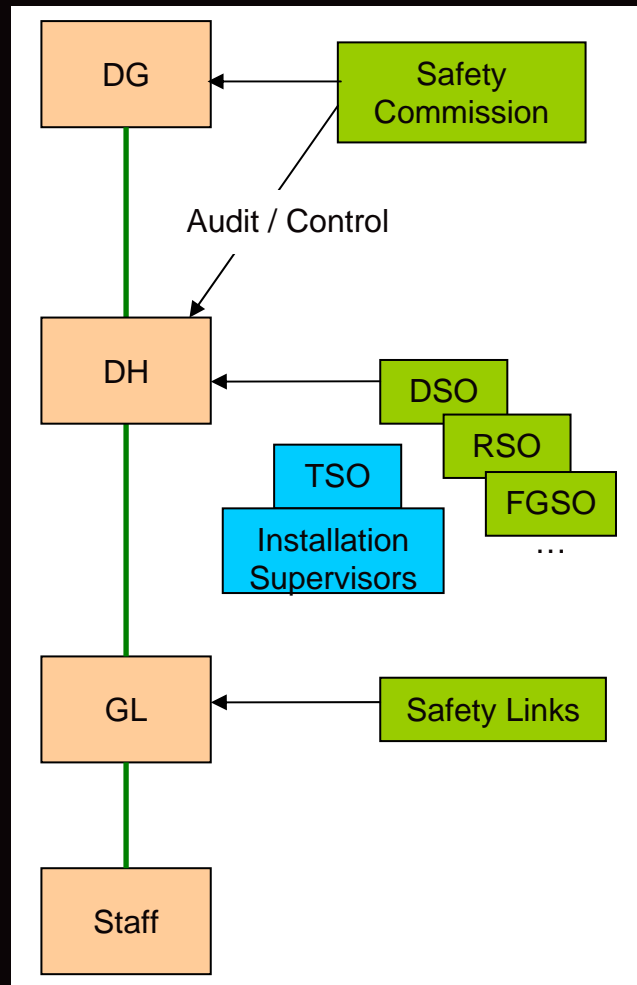
Ghislain Roy – AB DSO

ATC/ABOC Days 2007

# Topics

- Safety Structure
- Safety Training
- Safety Permits
- Access Authorizations
- Safety Coordination

# Safety Structure



- Safety responsibility with line management
- Also includes staff !
- Project leaders responsible for safety in and of their project
- Line management helped by the appropriate persons or structures :  
SC, xSO, Safety Links.

# In other words...

Loi Fédérale sur l'Assurance  
Accidents, Art. 82

L'employeur est tenu de prendre, pour prévenir les accidents et maladies professionnels, toutes les mesures dont l'expérience a démontré la nécessité, que l'état de la technique permet d'appliquer et qui sont adaptées aux conditions données.

L'employeur doit faire collaborer les travailleurs aux mesures de prévention des accidents et maladies professionnels.

Les travailleurs sont tenus de seconder l'employeur dans l'application des prescriptions sur la prévention des accidents et maladies professionnels. Ils doivent en particulier utiliser les équipements individuels de protection et employer correctement les dispositifs de sécurité et s'abstenir de les enlever ou de les modifier sans autorisation de l'employeur.

# What can you expect ?

When faced with a safety problem,  
you can turn to :

- Your Line Management
- Safety Officers, incl. TSO's
- AB Safety Unit
- Safety Commission

# DSO : mandate in Code A9

A Divisional Safety Officer's duties are set out below:

- i) to keep themselves, the Division Leader and Group Leaders informed of all aspects of Safety in the Division and ensure compliance with the regulations;
- ii) to assist the Division Leader in the creation and updating of the Divisional Safety Plan, in overseeing its application and in organising the Safety operations it contains at the divisional level;
- iii) to co-ordinate the work of all the Safety officers of the Division and have their objectives defined and activities assessed in the periodic interview;
- iv) to take part in analysing the Division's accident record, examine Safety problems and draw up suitable Safety measures;
- v) to assess the needs for Safety information and training to be given to the members of the Division and take the necessary actions;
- vi) to ensure liaison with the TIS Division and its services and, where relevant, with other Divisions, on all Safety problems and activities;
- vii) to represent the division in the DSO Committee (see Code A10).

# AB Safety Unit : mandate

The AB Department's Safety Unit (AB-SU) assists the Department head and the "Chef d'installation INB" in their responsibilities in all aspects of Safety.

Executive power is not delegated to the Safety Unit by the department head or the "chef d'installation" and the Safety Unit reports directly to the department head and the "chef d'installation"

The Safety Unit groups the expertise necessary to provide this assistance in the following domains:

- Occupational safety, including radiation protection, according to the rules in force at CERN (DSO, RSO, FGSO, CSO...).
- Operational safety during operation and maintenance of the CERN accelerators, including the management and follow-up of operation documents.
- Quality Assurance and Methods to ensure Safety of facilities and projects in all phases of their developments.
- Definition and follow-up of requirements for Safety training.

The Safety Unit makes use of departmental resources made available for Safety, but can also call upon resources in the different groups of the department based on a decision of the department head or of the "chef d'installation".

---

# In a nutshell :

## Your Safety is in your hands

- ❑ Take initiative and fix dangerous situations when you see them.
- ❑ Report those situations that you cannot fix.

## You are not on your own

- ❑ Line management, safety officers, Safety Commission must help you, each with their own competence.



# Safety Training

- Level 1, 2 and 3 given in a single session !
- Not enough for RP or EL dangers !!!
- Specific training per accelerator to be defined
  - LHC, LHC Expts, SPS, PS...
- Modern and adapted training delivery needed
  - On demand via Web and/or classroom by app<sup>nt</sup>...
  - Expiration dates and continuous training.

# Safety Permits

- “Habilitation Electrique”
- Scaffolding setup
- Lifting equipment

Permit requires training... and more !

To be (re-)organised in EDH...

# Access Authorisations

Rather difficult to manage !

- ❑ Authorisations cannot be revoked easily
- ❑ No expiration date
- ❑ Streamline the process
- ❑ Link Auth. DB to others : dosimetry, training, AP

Definition of access zones and related procedures to help you do your job while allowing us all to manage safety.

# Safety Coordination

- Common and accepted practice for construction sites and large projects.
- Needs careful integration with accelerator operation.
- SPS shutdown 06-07 with Cat. 2 coordination where needs identified.
- Review at end of shutdown.

# Conclusion

- You are responsible for your own safety but there are persons and services to help you.
- Progressive re-engineering of tools available to manage safety, and their use, is required:

Safety Training,  
Access Authorisations,

Safety Permits,  
Safety Coordination.