

LHC Performance Workshop - Chamonix 2010

25-29 January 2010

Session 4 - Safety for Personnel Underground - He Evacuation

**What can the
Safety Coordination
do for you?**

CERN Safety; who is Responsible?

- All CERN staff members.
- The line management all the way up to:
 - The Director General
 - The Directors
 - The Department leaders.

Each department must organize and put in place all aspects relating to health and safety that are connected with its activities.

Based upon...

Wouldn't it be wonderful if we could have just one clear set of international rules like Radio Protection.

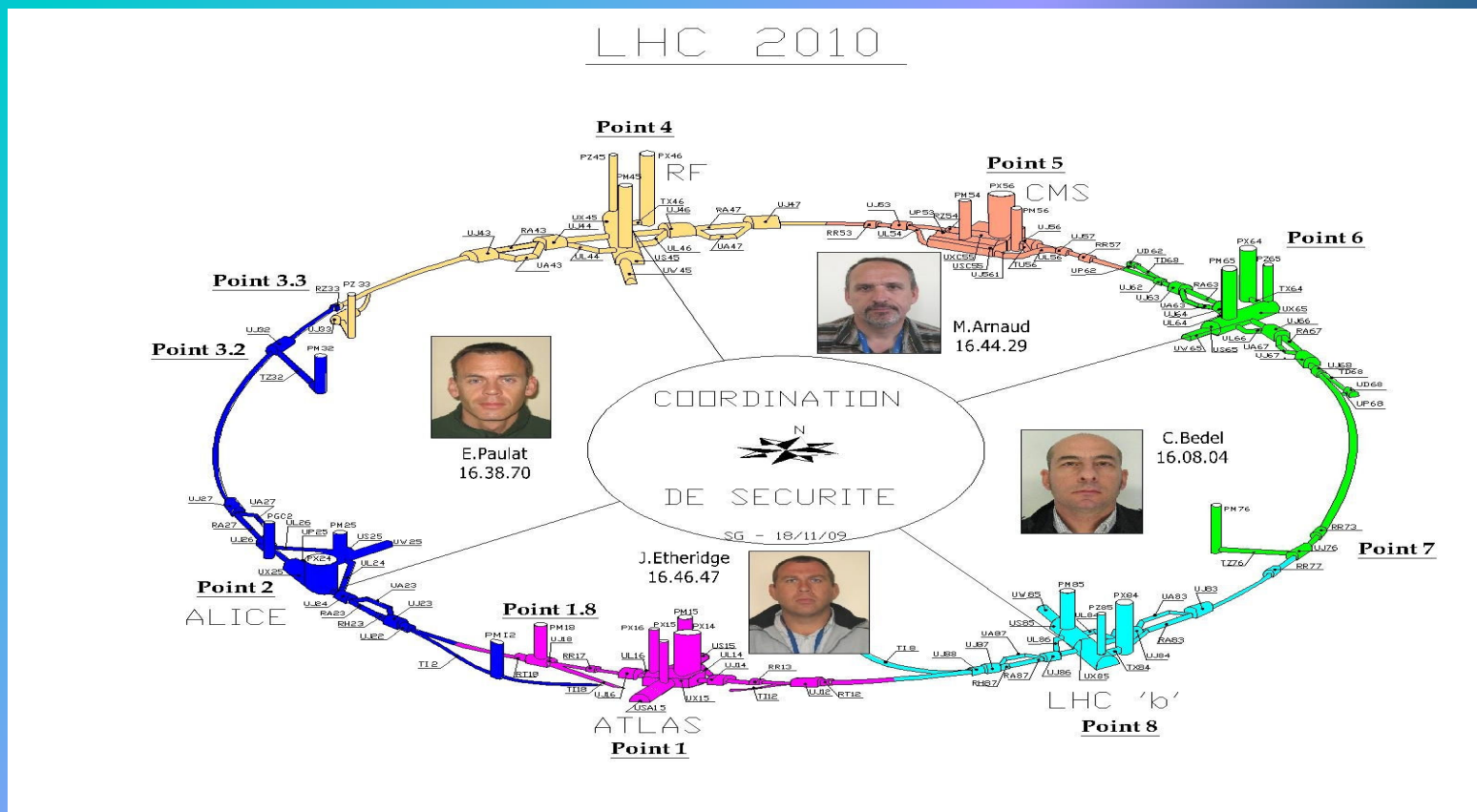
Where do the Safety Coordinators fit in? What's their contribution?

- We take into account all the risks, resulting from co-activity and successive activities.
- We ensure that the general principles of prevention are implemented and that the “rules and regulations” are respected.
- We endeavor to prevent incidents and accidents, but this is only possible with your help.
- **Our work is based upon the information you provide us.**

When should the Safety Coordination be called upon?

- The Safety Coordination should be involved from the **conception** stage and they should be consulted if there are **major modifications** to be carried out.
- The objective is to ensure that prevention is built in where ever possible.
- This will improve the working conditions, reduce risks, improve the quality of the work and therefore save time and money.

Who are the Health and Safety Coordinators?



Michel.Arnaud@cern.ch PH 16-44-29

Cyrille.Bedel@cern.ch GS 16-08-04

John.Etheridge@cern.ch EN 16-46-47

Emmanuel.Paulat@cern.ch BE 16-38-70

Examples where the safety coordination might have been of help

- Power converters versus cooling equipment

Unfortunate mixture of water and electricity



Examples where the safety coordination might have been of help

- Working platform or equipment protection?

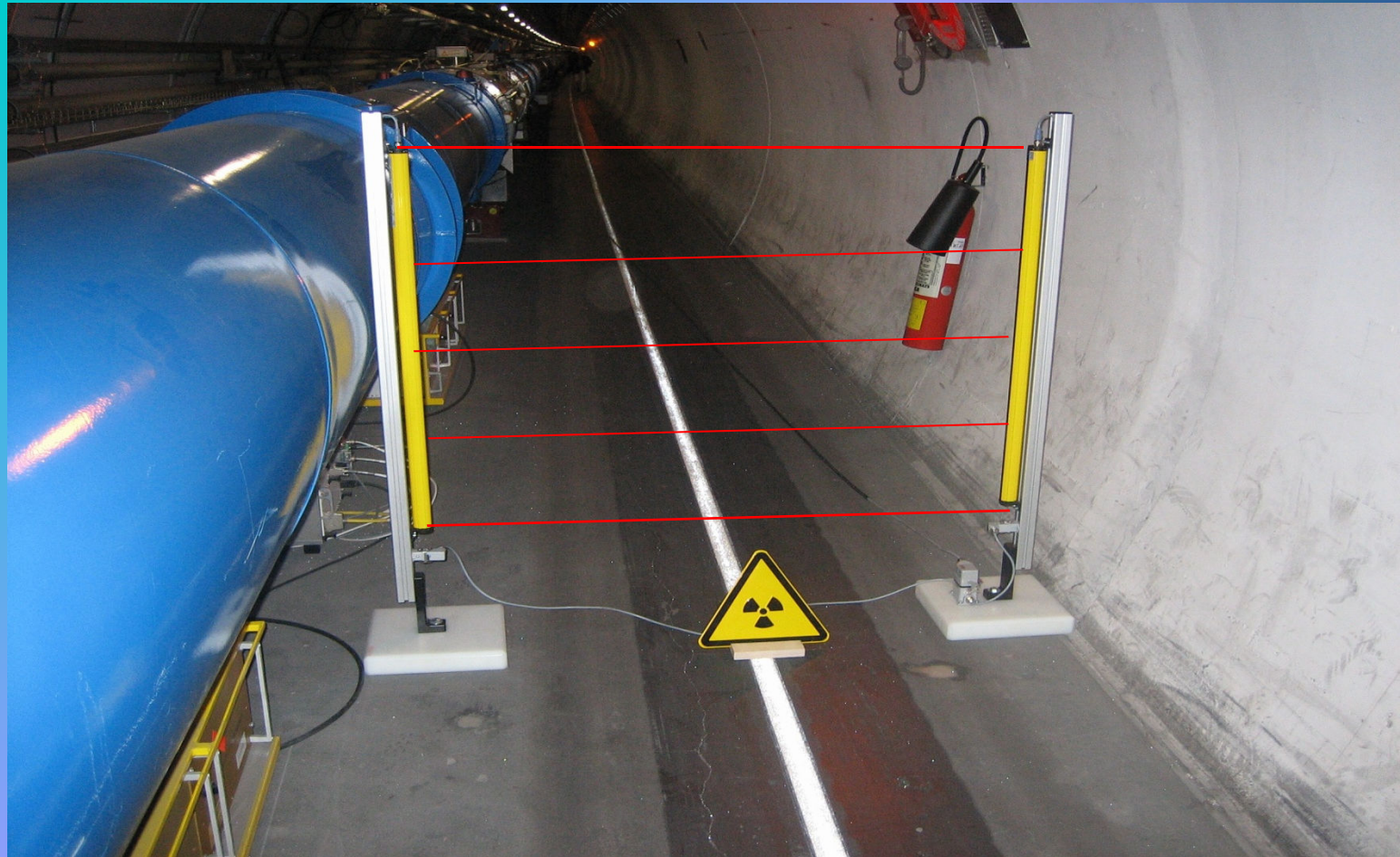
Working Platform?



An example where the safety coordination did absolutely nothing

- The third example: Is an excellent solution...

21st Century Safety Barriers



How does the Safety coordination operate during Technical Stops and Shut Down periods?

- All work, tests, interventions, must be:
 - Planned.
 - Covered by an (ADI / AET) issued by EN/MEF during the technical stop
 - Prepared with a procedure and or a fiche de tache
 - Authorized including, AET, VIC, ALARA, DIMR, consignations, hot work permit, IS 37 etc.
 - All documentation respected.
- Lack of rigor and discipline will result in incidents and accidents at the worst, but will also cost us time and money.

A new hybrid Avis d'Exécution de Travaux (AET)

- This draft document has been drawn up, and in principle approved by members of BE, EN, GS, SC, IT, PH, TE; we would like it to replace the AOC and the ADI for the next shut down.
- It is user friendly.
- The number of signatures has been reduced and the routing has been improved.
- It has been designed to simplify your job.
- It asks you questions, and informs you of things you will require in different areas.
- Julie Coupard will present many other advantages on Wednesday.

What do you need to do to start work?

- You or EN/MEF Planning will have issued your preliminary AET.
- You have taken into account the information contained in the “Plan de coordination des travaux et de la sécurité de l’accélérateur” (EDMS 978710)
- Dossier d’Intervention en Milieu Radioactif (D.I.M.R) + ALARA
- Work package analyse meetings
- PPSPS, including:
 - Method Statement
 - “Fiche de Tâche”
- Work Supervisor
 - Hot Work Permit (IS 37)
 - Cryogenic Authorisation
 - Electrical Consignation

Who handles the Planning and General Coordination?



Katy.Foraz@cern.ch
EN/MEF

Serge.Grillot@cern.ch
EN/MEF

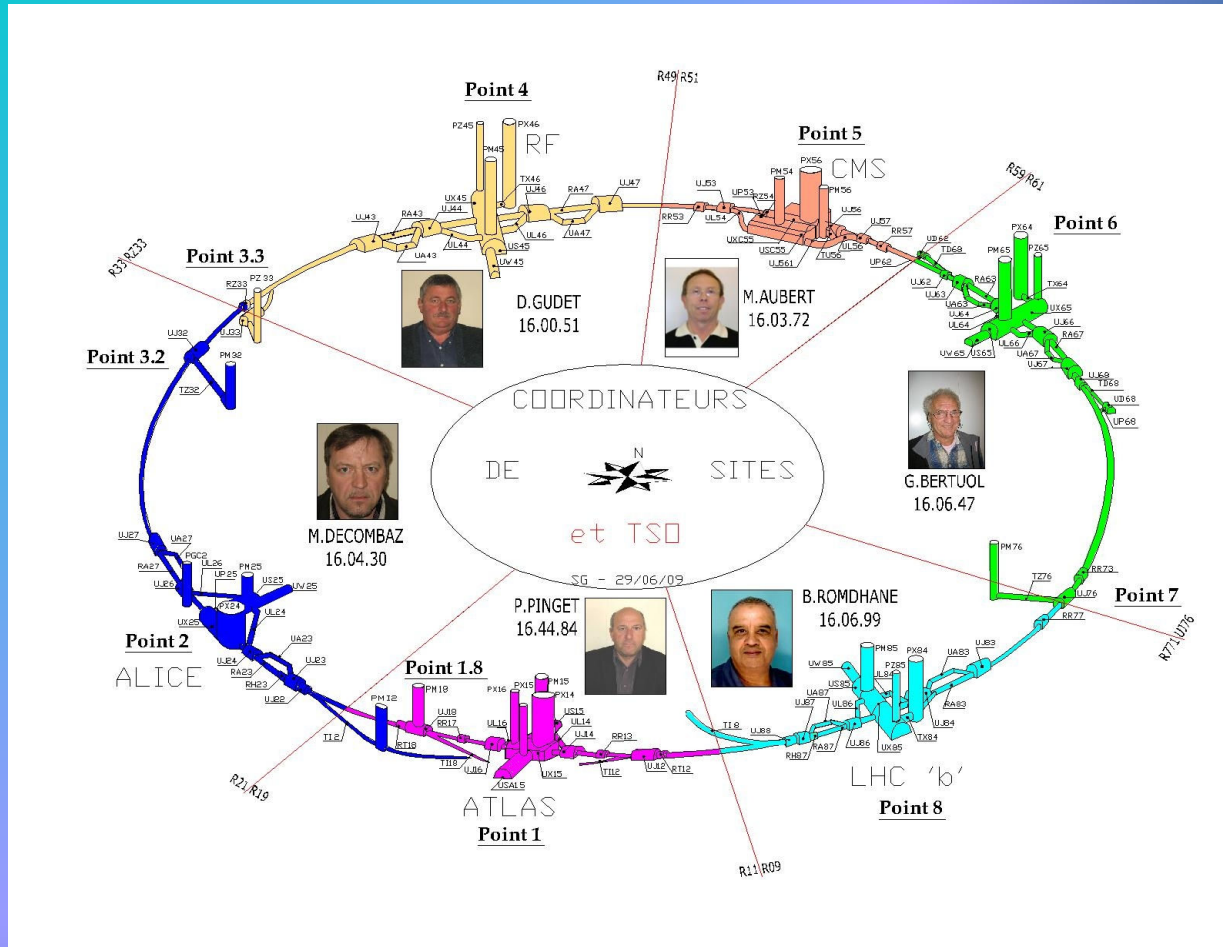


Hubert.Gaillard@cern.ch
EN/MEF



Julie.Coupard@cern.ch
EN/MEF

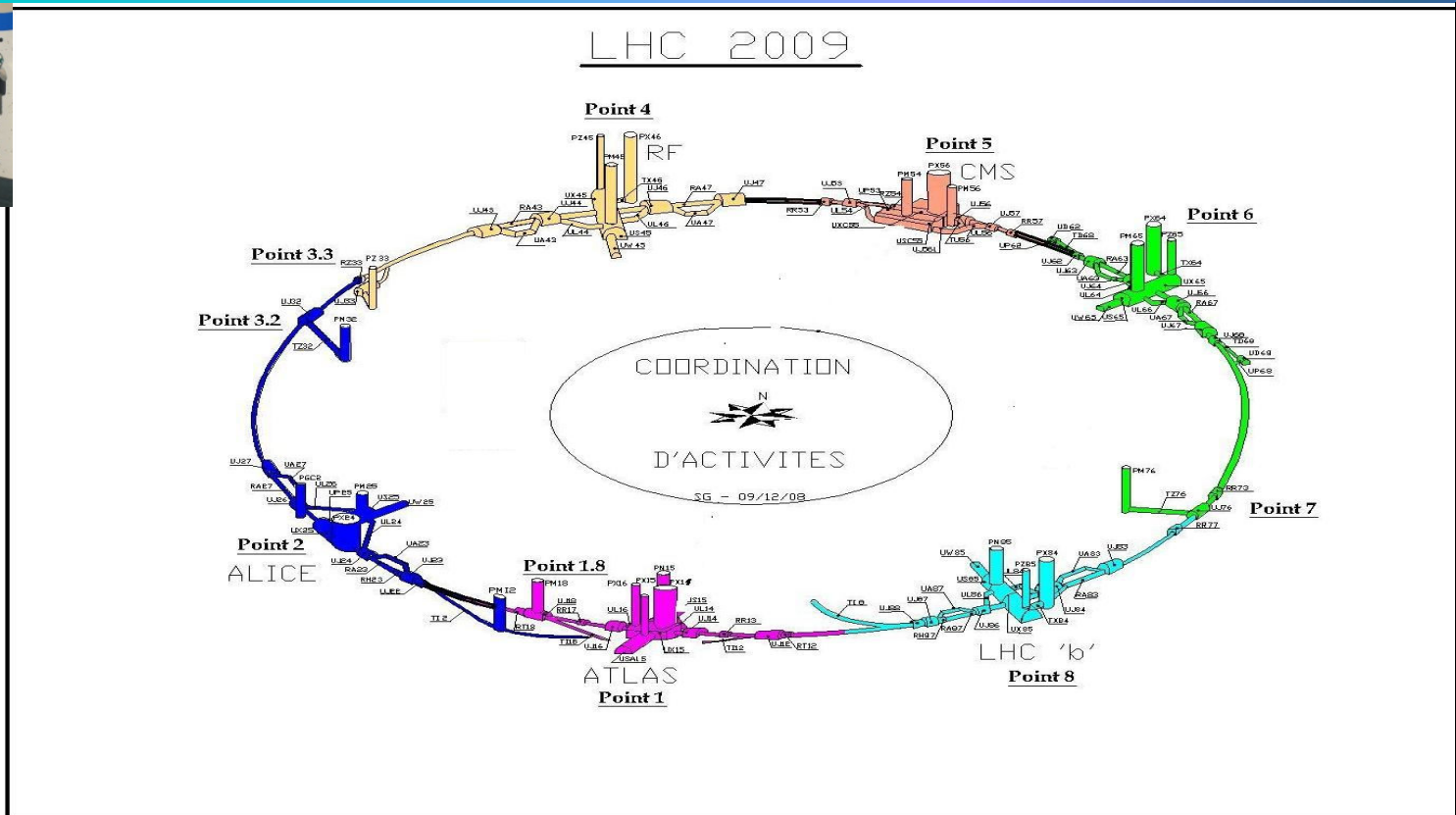
Who will you meet on site as Site Coordinators?



The site coordinators are also territorial safety officers.

Who issues the Electrical Consignation?

Electrical

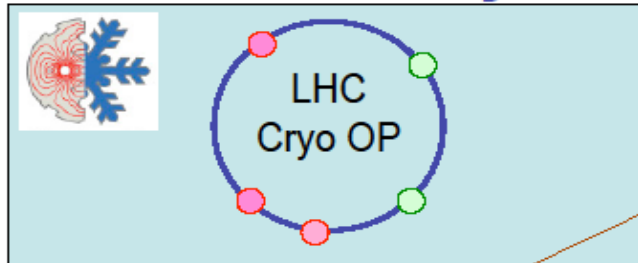


Gerard.Pastor@cern.ch EN/MEF 16-31-38 Elec

Who issues the Cryo Work Authorization?

Affectations LHC Cryo CRG-OA

Team Leader: S. Claudet



Jan'10

K. Brodzinski
(Interface tunnel)

HWC
Site coordination
CCC interface

	P18	P2	P4	P6	P8
Site coordination	U. Wagner	-/	-/	G. Ferlin	-/
CCC interface	JP. Lamboy	-/	S. Junker	L. Herblin	A. Suraci
	V. Darras	E. Millet	M. Combe	A. Gallon	A. Eychenne
		F.A Gruffaz	L. Donnier-M	S. Deniset	K. Hafi

Ing. OP référents
experts académiques

Ing. production
Encadrement site

Opérateurs
Sites + Shifts

+ OP 2010

+ OP 2010

+ Industrial partner teams in local control rooms (≈ 15 personnes Serco) + 1-2

CCC	P18	P2	P4	P6	P8
70463	70081	79240	79440	79640	79840
70464	75084	79241	79441	79641	79841

What is the added value of the Safety Coordination ?

- We take part in joint inspections with all departments, in all areas and act as an interface with the experimental caverns, not only LHC but CERN wide.
- We get things done in a safe way in the interest of the organization.
- We manage and control difficult situations and we meet dead-lines.
- We make the most of the means and documentation available to us.
- We propose **solutions**.

What we need to improve ?

Certain documentation needs to be more user friendly:

- We would, if at all possible, like to create official documents for all tests (pressure tests, electrical tests etc).
- Improve radiological controls when removing materials from the tunnel.
- Improve the use of individual protection...
- We need to improve the reaction time for the safety documentation. We have reduced the paper work to a minimum, for example 1 page for some 'fiche de tache'. In return we need to get it in time.
- We would like to have the same rules throughout the LHC and CERN-wide i.e. no difference between PS, SPS, LHC, surface buildings, and experimental caverns.

Negative Conclusion

◆ Feed Back or 'Retour d'expérience'

- ◆ Absence of work authorizations
- ◆ Working areas not respected even when they have been limited
- ◆ Transfer of paperwork once the 1st phase of electrical consignment has been completed
- ◆ Non respect of access conditions for reasons of planning
- ◆ Feed back on incidents or accidents.

For example, the cutting of a helium line when it was under pressure; an incident report that we are sure was issued? But not to us...

- ◆ Problem with access control during the commissioning phase, ADI, AOC, etc.

Positive Conclusion

- ◆ Feed Back or 'Retour d'expérience'
 - ◆ The work carried out in sector 3 – 4
 - ◆ The organization for the changing of the water cooled cables
 - ◆ Consignation
 - ◆ Scaffolding
 - ◆ Coordination
 - ◆ The new practical Biocell training
- ◆ As proof of the value of the safety coordination: the number of requests for joint inspections has gone up.

Lets try and avoid this

SAFETY TOUT VA BIEN !

