

# SAFETY AT CMS

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# NEW SAFETY RULES

- On 10.09.2008 the first proton beam passed through the CMS cavern.
- This triggered a completely new set of rules stipulated in:  
“Lettre d’engagement” of CERN following the convention between CERN and the French Republic (formerly known as INB rules).

# WHAT HAS CHANGED

- The entire LHC underground installations, except the USC55 cavern, are now declared as radiologically classified areas.
- This has a severe impact on the access conditions and on the working conditions (see also talk of Martin Gastal this afternoon).

# ACCESS TO UXC55

- In order to access UXC55 you need to
  - be duly registered at CERN, i.e. not expired contract or “attestation”;
  - have followed the basic safety training level 1-3 in building 55 (video course);
  - have followed the CMS specific safety training level 4C on the web: [sir.cern.ch](http://sir.cern.ch).

# ACCESS TO UXC55

- have followed the 1/2 day radio protection training course, but first you need to register under: <https://edh.cern.ch/Document/Document/TRN/new?course=077V10>
- have a medical certificate (to month grace time to provide it)
- You need to have the CMS\_U access: access request under: <https://edh.cern.ch/Document/ACRQ/>
- Remark: the CMS UXC access is not yet implemented, requests will be refused.

# ACCESS TO UXC55

- You need to fetch a personal dosimeter with your biometric data at building 55
- Attention: since the number of dosimeters is limited, your sub detector responsible/project manager has to forward your name to the GLIMOS/TC.
- You will then be notified to fetch your dosimeter

# ACCESS CONDITIONS

- Dosimeters are strictly personal.
- The blue material access device is for material ONLY.
- The yellow personnel access device is for people ONLY.
- All access doors to UXC55 are video monitored.
- Before entering the USC or UXC cavern you have to pass by the SCX5 control room and announce to the shift leader.

# ACCESS CONDITIONS

- Using the material access device or personnel access device is not trivial for beginners. Please do not hesitate to ask the SLIMOS in the control room or phone the GLIMOS.
- Do not force any door outside an emergency situation. This dumps the beam!

# RADIOACTIVE MATERIAL

- All material in the UXC cavern being there during “beam on” is potentially radioactive and is declared as such!
- If you want to remove this material from UXC55 you have to put it into the “buffer zone”.
- The yellow fenced buffer zone is located in the TX54, i.e. behind the grey double door in the PM54 level -3

# BUFFER ZONE

- All material has to be put in the yellow buffer zone
- You can recuperate it in the grey container after SC/ RP clearance



# RADIO PROTECTION

- All material removed from the UXC55 cavern has to be labeled such that it can be properly traced.
- UXC55 is split into 2 zones:
  - radioactive waste zone (essentially along beam pipe)
  - conventional waste zone

# RADIO PROTECTION

- All material originating from the radioactive waste zone is by definition radioactive waste and has to be traced until its final disposal.
- All material originating from the conventional waste zone is potentially radioactive and has to be traced until SC/RP has cleared it. If found to be activated it will be treated as if coming from the radioactive waste zone.

# CONCLUSION

- Please check you access rights and safety courses well before you intend to go underground
- No material is allowed to leave UXC55 without radiological check done by SC/RP
- In case of questions, contact the GLIMOS (160202) or the shift leader on site (77705)