

Feb. 2009

Safety Briefing for Test Beam User

Safety First!

Norbert Meyners, MEA

I do not see now a days any physics result that is worth to risk your or other peoples life or health!

Life is dangerous enough there is no need to increase this!

I do not like setups that are a test of the cleverness of co-worker especially of newcomers!

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◆Responsibilities:

- One of you is the **boss** and responsible!
- If more then one group are working in an area a **co-ordinator** has to be assigned.
- The test beam co-ordinators (I.Gregor & N.Meyners) are of course responsible for **inference** of the different user groups.
- N.Meyners, MEA is Field Safety Officer.
 - ◆ He is responsible for the DESY Installation and equipment at the beam areas. (Translation stages, interlock, emergency off and gas sniffer system, huts, ladders,...).

Norbert Meyners, MEA

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Safety Briefing for Test Beam User

◆ Safety Officer:

- Each DESY group has a **safety** and a **radiation safety** responsible person.
 - ◆ They stay responsible if group members are working at the test beam.
- External groups have to be **assigned** to such responsible persons.
 - ◆ If a collaboration with a DESY group exist the safety officers of this group will take this duty, if not N.Meyners, MEA should take it.
- All this responsibilities are collected on the **door sheet** that has to be filled and placed next to door of the hut!

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Fire or accident:

Call 2500!

Do **not** directly call ambulance or fire brigade yourself!

If you got completely lost you could ask Technischen Notdienst (Ph: 5555) or the accelerator control room (Ph: 3500) for help.

Safety Briefing for Test Beam User

◆ General (1):

- Be aware of the **escape routes**.
 - ◆ Keep them clear!
 - ◆ Remove your trash!
- Do not explore **other areas**.
- Obey **safety signs**!
- Do **not climb** on the walls or huts.
- **NO** open **fires** in the hall!
- Watch out for **crane** work.
 - ◆ Stay clear of hanging loads.
 - ◆ Wear hard heads if you assist.

Fluchweg-
kennzeich-
nung kommt
bald!

Frage: Not-
beleuchtung
notwendig?

Safety Briefing for Test Beam User

◆ General (2):

- **Working alone** is only permitted for data taking during normal working hours.

(Working alone during night or weekend would need special precautions. Ask!)

- If you hear anomalous noise (whizzing or whistling) or if you notice other **strange things** (water floods, fountains) inform the **Technischen Notdienst Ph: 5555**
 - ◆ Take into account to leave the hall before.

For more detailed information read the general DESY safety instruction.
(German: <http://www.desy.de/d5/sicherheit/sicherheit.htm>;
English (incomplete): <http://www.desy.de/d5/englisch/welcome-en.htm>)

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◆ Large fires:

- Leave the hall as fast as possible.
- Call **2500** (040/8998-2500)

◆ Small fires:

- Small fires elsewhere in the hall **may be** attacked by you with a **fire extinguisher**.
 - Press **emergency off!**
 - Keep a distance of **1m minimum** from electrical and HV systems!
 - For HV systems use **CO2 fire extinguisher!**
- (If you succeed inform test beam co-ordinators (I.Gregor or N.Meyners) and Technischen Notdienst (Tel.:5555).)

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◆ Accident/Emergency:

- If a person is seriously injured or ill call **2500**.
Explain: **Who** you are,
what happened
where,
when and
if there is danger of life
strong bleedings, electrical injury, downfalls etc..
(They will call the ambulance and guide it to the building 27.)
- Remember your First Aid Training.
(The next **first aid supplies** are available in the white locker in south west corner of the hall close to the huge south gate. A **stretcher** is available at the North West corner).
 - ◆ Please inform the test beam co-ordinators (I.Gregor or N.Meyners) **about any safety relevant incident that occurred.**

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◆ Emergency off:

- Emergency off buttons at the hut (3) at the **entrance** of the area
(21 and 22 or 24 and 24/1 together)
and NEW **inside** 24/1.
(We will change 21, 22 & 24 during 2009)

◆ Before Data taking:

- Safety check by MEA (Norbert Meyners)
- Safety check by the Safety Department (D5)

Safety Briefing for Test Beam User

◆ Translation stages:

- ◆ Be careful! Danger of squeezing!
(The big stages can carry up to 1t.)
- Stay in contact via **phone** during remote operation if people are inside the area!
 - ◆ Make sure that the stages do not touch other equipment when they move remotely!
(Stages with **adjustable end switches** are available.)

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◆ Lead/Iron bricks:

- ◆ Iron and Lead bricks are heavy.
- ◆ Lead is poison.
(Avoid hand-mouth contact)
- Wear **gloves** when handling lead!

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◆ Ladders

- ◆ Working on ladders is quit dangerous!
- Do NOT take broken ones!
- Use properly! Right angle! Solid ground!
Both feet on the ladder!
- ◆ You are not allowed to climb
on the walls or huts!

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◆ Magnetic field:

- **Warning sign!**
- **NO** people with **pacemakers** in the hall!
Due to the stray field of the 1T EUDET solenoid in 24/1!
- Field off, when working with magnetic tools!
 - ◆ The forces on tools due to the magnetic field can be very high and you can squeeze parts of your body.
- Do NOT touch or enter areas which are signed as **electrical area** (current leads, dump switches, etc.).
- In case of problems inform the experts and the safety officer.

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◆ Electrical and High Voltage Systems, Tools and Equipment:

- Only **proper** equipment allowed!
 - ◆ **Annual checks** for electrical equipment!
- Home made devices have to be **proper** too!
 - ◆ Obey the voltage limits of connectors (i.e. No high voltage on standard Lemo connectors!)
- **Warning signs**, if needed!
- **NO** work on the HV systems or electrical systems with the voltage switched on.

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◆ Hazard Materials

- Have to be announced before!
- Have to be handled/marked/stored properly!

Selten
richtig
gefährliches
Zeug!

Manchmal
radioaktive
Präparate!

Safety Briefing for Test Beam User

◆ Gas system

- Be aware of the danger of your gas!
- Attach gas cylinders (bottles)!
- Store gas cylinders outside or in gas cabinets!
- Use exhaust and ventilation if necessary!
- Ask for the adaptation of the gas safety system if needed!
- **NO** mechanical work on a running gas system.
Check pressure before breaking a gas line!
- **NO** manipulation of the gas safety system!

Heutzutage
meistens
nicht
brennbare
Gase!
Oder gleich
Silizium-
Detektoren!

Spezielle Sicherheitsunterweisung Teststrahlen für MEA3

Wat noch!

◆ MD-Magnet im Gebiet 21

- Keine Erdungseinrichtung!
- Betrieb nur bei gesetztem Gebietsinterlock plus Schlüssel
 - ◆ Nutzermodus ohne Zugang
 - ◆ Expertenmodus mit Zugang (nur zu zweit)

Spezielle Sicherheitsunterweisung Teststrahlen für MEA3

Wat noch!

◆ PCMAG (Eudet-Solonoid) in 24/1

- Flüssig-Helium/Stickstoffversorgung mit Dewars
- Vorsicht! Tiefkaltes Gas beim Abkühlen!
- Betrieb nur bei gesetztem Gebietsinterlock
- Expertenmodus mit Zugang (nur zu zweit)

Spezielle Sicherheitsunterweisung Teststrahlen für MEA3

Wat noch!

◆ Im Tunnel

- Magnete
 - ◆ Keine Erdungseinrichtung!
 - ◆ Betrieb nur mit Magnetstromfreigabe (DESY)
 - ◆ oder Expertenmodus mit Schlüssel
- Kollimatoren
 - ◆ Ferngesteuert
 - ◆ 110V Motoren
- Konvertertarget
- Strahlverschluss

Spezielle Sicherheitsunterweisung Teststrahlen für MEA3

◆ Strahlenschutz

- Im Betrieb "Sperrbereich"
- Keine Leitern an den Wänden stehen lassen
- Interlocksystem → Das Übliche!