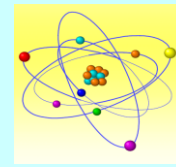




ISIEC



Initial Safety Information on Experiments at Cern

EXPERIMENT	CMS RPCs		EXP.#	R&D
DATE	09-Mar-15	Filled in by	Ian Crotty 164414	
INSTALLATION START	11-Mar-15	End of installation	31-Mar-15	
END OF EXPERIMENT	2020			
SPOKESMAN	Camporesi Tiziano		Phone	160404
GLIMOS	Niels Du Pont		Phone	165186

1- LOCATIONS				
AREA	GIF++	BEAM	Door #	PPE154
CONTROL ROOM	HNA487		Phone	
Labs at CERN (bdg/room)	904		Phone	

2-GASES, LIQUIDS, CRYOLIQUIDS				
<i>Used in detectors or kept in nearby containers</i>				
Device type	Fluid 1 +% Fluid 2 etc	Volume	Abs. Press.	Max Flow
Long Term Ageing Test CMS RPC	R134a	96%	1.002	20 [litres/hr]
	IsoButane	3.50%		
	SF6	0.50%		

3-OTHERS CHEMICALS	
<i>Toxic/Corrosive/Flammable metals, solvents, additives etc.</i>	
NA	

4-ELECTRICITY					
<i>Used in detectors or kept in nearby containers</i>					
MAGNETS					
Magnet type	Power	Field	Gap Vol.	Max. Water Press	
NA	NA				
HIGH VOLTAGE (>1KV)					
Detector type	Voltage	Current	Stored Energy	No of HV Channels	Remote shut-off?
	10kV	50 [micro Amps/chamber]	0.6 Joules / chamber	Max 20	In the racks outside & "Gas Kill"

SHORT-CIRCUIT current > 5 mA for > 50V possible anywhere?	Not possible max 1mA/ PS
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POWER dissipated by all electronics	
On detectors :	56W for 8 chambers
Off detectors :	300W main frame in GIF service area

Special grounding requirements ?	Require installation of ground bus bars on the wall.
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5-LIFTING AND HANDLING	
Weight of heaviest single piece to install?	650kg
Specialty designed handling equipment?	On wheels
For which max. weight?	1200kg

6-VACUUM TANK, PRESSURE TANK, CRYO TANK			
Tank	Abs. pressure	Volume	Weakest part(s) of wall
NA			

7- IONIZING RADIATION	<i>Beam Intensity, radioact. Sources, depleted uranium, etc.</i>
Beam Line H4 EHN1 Energy <100GeV/c	
Cs137 14TBq	

8- NON-IONIZING RADIATION	<i>Details (e.g. class of laser, origin of UV light, average power of microwaves or RF, pulsed o CW, ...)</i>
LASER	NA
UV LIGHT	NA
MICROWAVES (300 MHz-30 GHz)	NA
RADIOFREQUENCY (1-300 MHz)	NA

9-OTHERS HAZARD (or remarks)
The LEL is respected by the gas system. (R. Guida) In addition the return flow rate from the Chambers is compared to the supply flow rate.

10-RISK ANALYSIS
Risk with correct grounding and secure mounting should be zero.
During the installation phase cables and piping will be secured to avoid tripping hasards.

>>> Please return this form to the DSO of your Department <<<