

Radiation levels in the LHC (R2E-related)

Week 14 (4.4.2011 00:00h- 10.4.2011 23:59h)

Comments:	- Locations with cumulated fluences <1E6 HEH/cm2 are those where the RadMons counts (@5V & @3V) are statistically not relevant - RadMon readings in shielded areas are strongly affected by the thermal neutron component - W14 Scrubbing run (three days full) - BLM dose assumes a constant offset of 2E-7 Gy/s						
Uncertainties:	Tunnel locations - factor of 2x Shielded areas - factor of 3x						
RRs	<i>shielded areas</i>			<i>tunnel</i>			
	HEH (cm-2/week)	HEH (cm-2/2011)	HEH (cm-2/week)	HEH (cm-2/2011)	BLM dose (mGy/week)		
13	<1.0E+6	<1.0E+6	8.6E+06	8.6E+06	123		
17	<1.0E+6	<1.0E+6	8.6E+06	8.6E+06	37		
53	<1.0E+6	<1.0E+6	3.5E+06	5.2E+06	40		
57	<1.0E+6	<1.0E+6	5.2E+06	5.2E+06	42		
73	<1.0E+6	<1.0E+6	<1.0E+6	<1.0E+6	353		
77	<1.0E+6	<1.0E+6	3.5E+06	8.6E+06	174		
UJs	<i>shielded areas</i>			<i>tunnel</i>			
	HEH (cm-2/week)	HEH (cm-2/2011)	HEH (cm-2/week)	HEH (cm-2/2011)	BLM dose (mGy/week)		
	14 (13, tun)	<1.0E+6	1.4E+06	2.6E+07	7.5E+08	300	
	16 (17, tun)	<1.0E+6	1.2E+06	2.1E+07	1.1E+09	548	
	22	N/A	N/A	1.1E+08	2.5E+08	176	
	23	<1.0E+6	<1.0E+6	1.2E+07	2.2E+07	25	
	32	N/A	N/A	<1.0E+6	<1.0E+6	27	
	33	<1.0E+6	<1.0E+6	<1.0E+6	<1.0E+6	N/A	
	56	<1.0E+6	<1.0E+6	4.9E+06	3.6E+08	15	
	76	<1.0E+6	<1.0E+6	1.5E+08	6.2E+08	348	
87	<1.0E+6	<1.0E+6	1.7E+07	9.7E+07	<10		
88	N/A	N/A	7.8E+07	2.6E+08	<10		
REs	<i>shielded areas</i>			<i>tunnel/side</i>			
	HEH (cm-2/week)	HEH (cm-2/2011)	HEH (cm-2/week)	HEH (cm-2/2011)	BLM dose (mGy/week)		
	28	<1.0E+6	<1.0E+6	1.3E+06	1.3E+06	15	
	32	<1.0E+6	<1.0E+6	<1.0E+6	<1.0E+6	27	
	38	<1.0E+6	<1.0E+6	1.3E+06	1.3E+06	55	
	62	<1.0E+6	<1.0E+6	<1.0E+6	<1.0E+6	17	
68	<1.0E+6	<1.0E+6	1.3E+06	1.3E+06	20		
78	<1.0E+6	<1.0E+6	1.3E+06	2.6E+06	<10		
US85/UX85	<i>cavern US85</i>			<i>cavern UX85</i>			
	HEH (cm-2/week)	HEH (cm-2/2011)	HEH (cm-2/week)	HEH (cm-2/2011)			
	<1.0E+6	<1.0E+6	<1.0E+6	2.2E+06			
R34 R74/76 R771	<i>tunnel</i>						
			HEH (cm-2/week)	HEH (cm-2/2011)	BLM dose (mGy/week)		
		N/A	3.5E+08	9.0E+08	458		
	N/A	5.3E+08	2.7E+09	5389			
	N/A	9.1E+08	4.9E+09	580			
P2 right (27) P2 left (23) P8 right (87) P8 left (83)	<i>shielded areas (UA)</i>			<i>tunnel (RA)</i>			
	HEH (cm-2/week)	HEH (cm-2/2011)	HEH (cm-2/week)	HEH (cm-2/2011)	BLM dose (mGy/week)		
	<1.0E+6	<1.0E+6	5.1E+08	1.3E+09	871		
	<1.0E+6	<1.0E+6	1.8E+08	2.6E+08	663		
	<1.0E+6	<1.0E+6	5.5E+08	9.4E+08	2128		
	<1.0E+6	<1.0E+6	N/A	N/A	537		
Additional points of interest (losses observed in 'unusual' locations)							
RB44/46 UXC55 8R5 9R5 11R5 UPS54 11L1 8L1 ARC/DS	<i>tunnel</i>			<i>shielded areas</i>			
	HEH (cm-2/week)	HEH (cm-2/2011)	BLM dose (mGy/week)	HEH (cm-2/week)	HEH (cm-2/2011)		
	2.2E+08	2.3E+08	N/A	N/A	N/A		
	<1.0E+6	7.7E+07	N/A	N/A	N/A		
	6.9E+06	9.7E+07	<10	N/A	N/A		
	1.7E+06	2.9E+07	<10	N/A	N/A		
	5.2E+06	2.8E+07	62	N/A	N/A		
	N/A	N/A	<10	<1.0E+6	<1.0E+6		
	<1.0E+6	1.7E+07	38	N/A	N/A		
	4.0E+07	7.3E+08	40	N/A	N/A		
	32R4	N/A	N/A	163			
	33R4	N/A	N/A	81			
	32L8	N/A	N/A	292			
	21L4	N/A	N/A	301			
11R3	N/A	N/A	309				
11L4	8.6E+06	8.6E+06	41				