

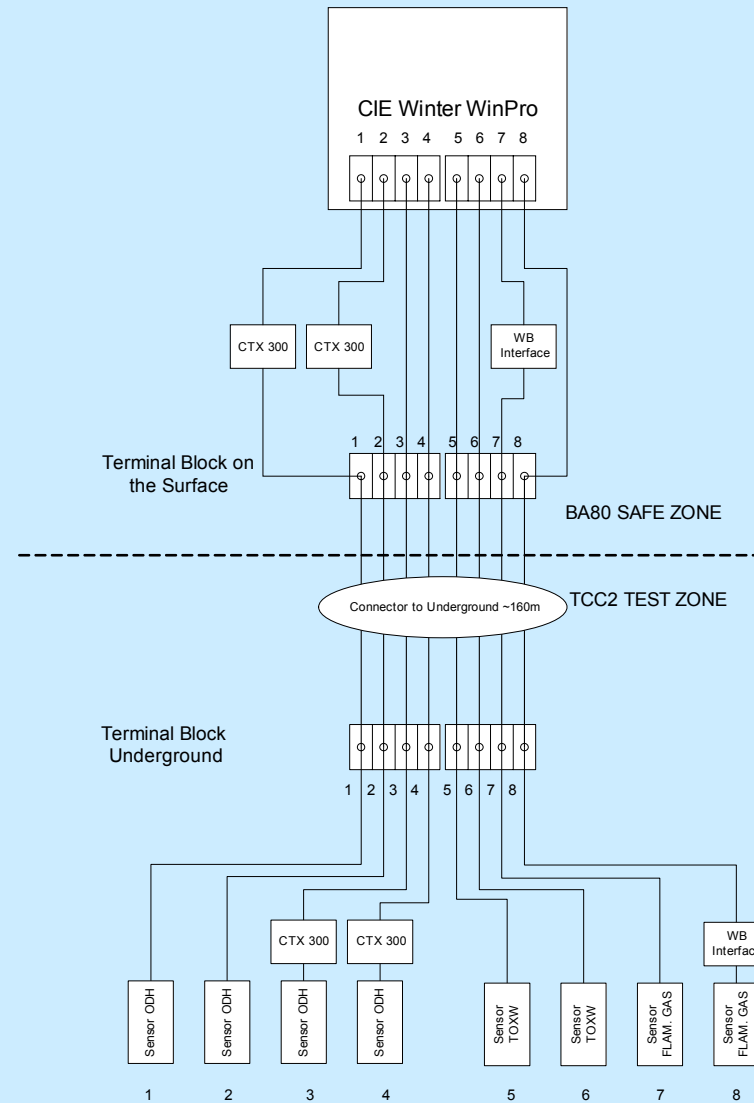
ODH Detection TCC2 Radiation Tests

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Objectives

1. Irradiate ODH detectors in a monitored test environment (similar to LHC).
2. Study the performance and functionality of the detector (COTS) electronics.
3. Qualify/disqualify the ODH detectors for use in LHC.
4. Document results and draw conclusions.

Test Set Up



Picture Gallery

BA80 Safe Zone



TCC2 Test Zone



CIE



Detector Config

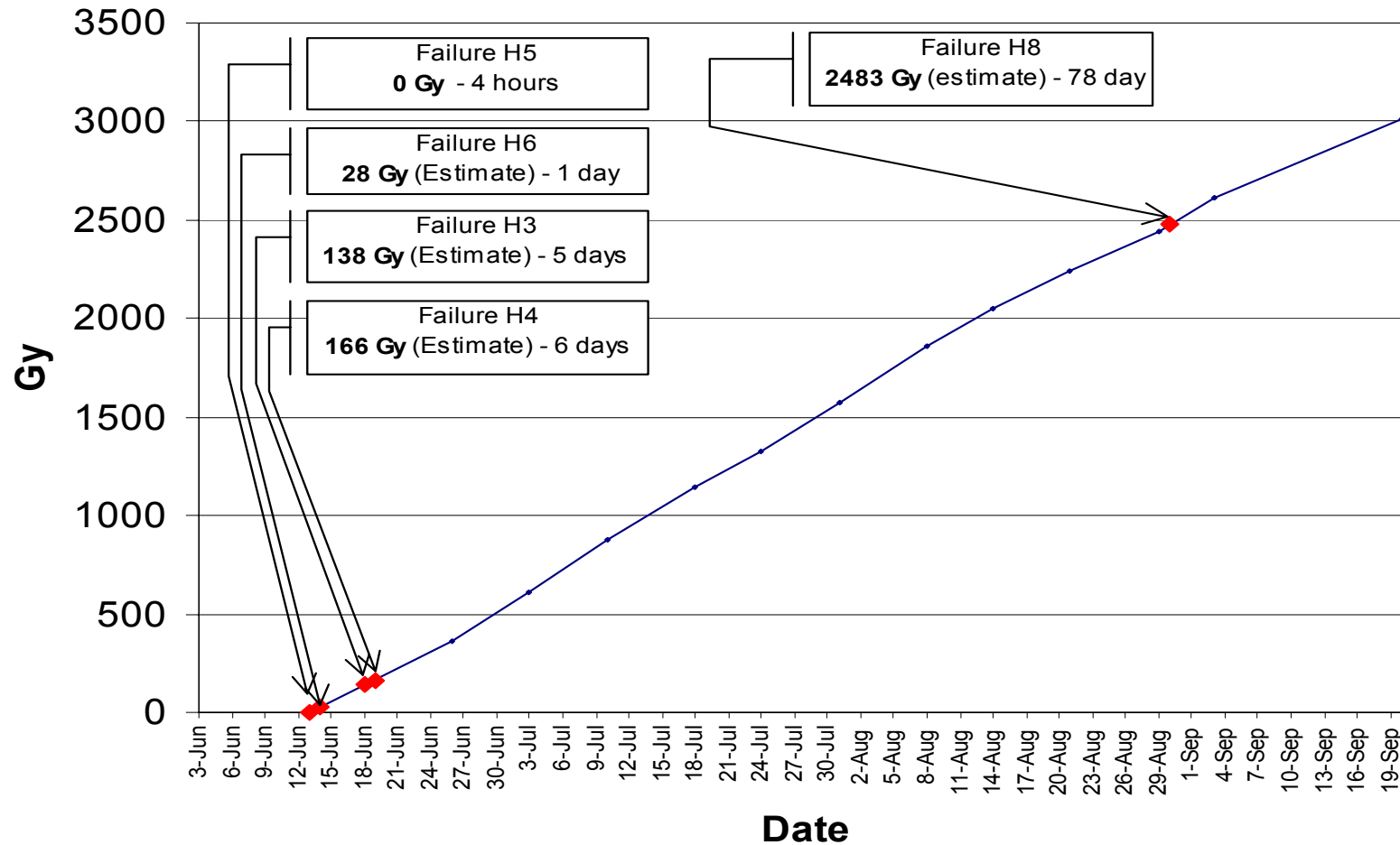


Results Table

Head No	Dose to Failure	Days/Hours To Failure	Degradation	Electronics Module Exposed
H1	-	-	No	No
H2	-	-	No	No
H3	138	5/dys	Yes	Yes
H4	166	6/dys	Yes	Yes
H5	0	4/hrs	Yes	Yes
H6	28	1/dy	Yes	Yes
H7	-	-	No	No
H8	2483	78/dys	Yes	Yes

Graphic Results

Cumulative Dose in Gray (Meter No 3)



Conclusions

1. ODH Detector electronics were corrupted by the effects of radiation after a short period of time.
2. The idea of permanently installing ODH detection in the LHC tunnel is now in question?
3. Probably install semi Permanent ODH detection during the LHC «machine open state»?