



Instrument Status and Anomalies

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IOCG 25/03/2011

SPI

- **29/4/09 INT_SC-254 SPI CDE: Failure of TC E9968 to switch CDE1 internal relay position**

Attempt to switch relay on 19/10/10 successful. Failure was in the relay status sensor and the activation of both CDEs in the 4 LCL configuration was completed nominally. Procedures, Database and X-reference updated -> closed

- **27/05/10 INT_SC-294 SPI GeD#1 Anomaly**

Symptoms are similar to those of previous GeD failures. HV of GeD#1 set to 0.5kV as for the other failed detectors. GeD#1 disabled in the PSD and DFEE -> closed

SPI

- **10/07/10 INT_SC-299 Anomalous value of GeD#8 DC output voltage**

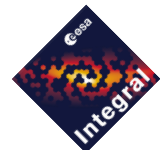
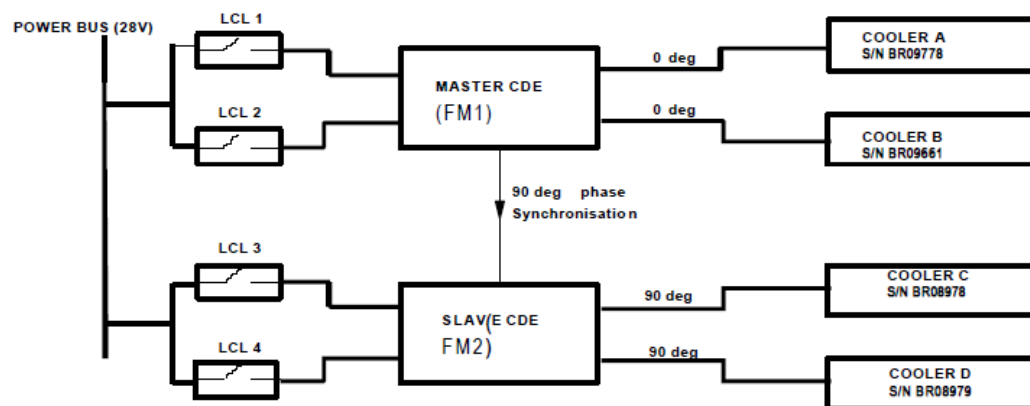
The count rates from GeD#8 have since been nominal but the DC output voltage seems not to have recovered fully. PI has confirmed that the energy resolution of GeD#8 is nominal. Behaviour unchanged. 16th Annealing made no difference -> closed

- **DPE/IASW:** Nominal. IASW 4.3.5 installed, SE compression only enabled.
- **ACS:** Nominal, except for failed FEEs 57 & 81 which are OFF
- **AFEE:** Nominal except for failed GeD #1, #2, #5 & #17 (HV set to 0.5kV and disabled in PSD)
- **DFEE:** Nominal
- **PSD:** Nominal

SPI Status: General



- **Cryostat:** Power supply configuration changed for CDE1 to 2 LCLs on 19/10/2010. Now each CDE is fed by two LCLs.
- **Single LCL SEU affects only one Compressor (was 2)**
- **Drive Electronics remain powered after single LCL SEU**



SPI Status: Cryostat



- **Cold Plate Temperature:**
 - **Still maintained in 80K +/- 1K range.**
 - **New perigee passage attitude implemented to minimize SPI cold plate temperature jump during perigee passage.**
 - **Drift is max ~0.1K/Rev**



- **Annealing:**

- **Next annealing planned 25th April 2011.**
- **Nominal annealing duration 200h (6 revs), with Cold Box temperature at -65K.**
- **Radiator compensation heater will be switched ON.**

- **Compressor stroke:**

- **currently set to 41 and all 4 LCL currents are stable**

SPI Status: Open Actions



- **CDE relay:**
 - **LCL trip off procedure to run in a 3 compressor mode**
- **Eclipse OOL**
 - **New procedure to reflect all SPI OOL after Eclipse**



IBIS

- **16/11/10 INT_SC-311 VETO reset**

Recovered back to nominal (impact ~4 hrs). SEU. No re-occurrence -> proposed closed.

- **15/5/10 INT_SC-295 IBIS VETO VDM14 HV Breakdown**

Standard recovery of mode cycle (impact ~1.5hrs). Kept open for tracking.

- **26/6/09 INT_SC-260 PICsIT PDM1 Latch Up**

Standard recovery of PDM1 power cycle (impact ~1 hr). Open for tracking.

JEM-X

- **13/2/11 INT_SC-319 JEM-X2 DFEE CRC Anomaly following eclipse**

>Time-tag sequence is not preventing this anomaly.

>It has been suggested that repeating or delaying the “ON” command from the DPE might help (this would require a patch to the DPE S/W)

- **OMC**
- **Nothing to Report**