

ECAL alarm handler meeting

Date: 2025-05-19

Time: 15:30 – 16:15

Attendees: P. Bonneau, B. Eng, D. Jones, T. Lemon, M. McMullen

1. 05/19/2025 Cooldown

McMullen, Jones

1. DSG met with Hall A to discuss the ECAL controls issue that occurred on 05/18/2025, when controls temperature readback channels 17 to 32 stopped updating. The values were stuck at the last updated read value. The overall effect on the detector was cooldown.

2. Alarm handler issue

Jones

1. Hall A currently has an EPICS monitoring script that checks to see if the control temperature channels are updating. This system evaluates the current value versus the previous value, and if it determines that the channel is not updating, a counter will increment. If the channel is updating, the counter decrements. If everything is normal, the counter value will be around zero. The EPICS alarm handler monitors the counter and alerts the shifters if the counter reaches 35.
 - On 5/18, the shifters were not alerted because the EPICS PVs/IOC had been rebooted, and the alarm setpoints reverted to default values. However, the counter was increasing.

3. Alarm handler update

Jones

1. Today Hall A updated the method of IOC recovery so that the alarm setpoints are set in the database file, which essentially hard codes them in the system. Since the alarm counter did increment, once the alarm threshold is reached, the shift crew will be notified.
2. In addition to the 48 channels of control temperatures, the ambient temperature is also monitored in EPICS with alarm parameters.

4. Hall A ECAL operational changes

Jones

1. Procedural changes.
 - The shifters will receive training on visually checking the alarm handler to ensure that it is operating.
 - The heater controls will be turned off if there is no shifter to monitor it.
2. Engineering changes
 - Hall A is sourcing additional radiation shielding for the system

5. Meeting conclusion

DSG, Jones

1. Hall A informed DSG that the current method of alarm handling for the system is appropriate but will be re-evaluated if necessary.
2. DSG has continued to develop and test safeguards for the system. Upgrades will be made in the future after development and testing.
3. DSG encouraged Hall A to present suggestions for improvements to the system. All information will be disseminated via the mailing list and/or meetings.