

# Minutes of the 172<sup>nd</sup> EATM Meeting held on 23<sup>rd</sup> July 2024

Minutes and slides available at <https://indico.cern.ch/event/1438508/>

**Present:** D. Banerjee (BE-EA, chair), L. M. Bueno (EP-UFT), N. Charitonidis (BE-EA), O. Denisov (EP-UFT), J. Devine (EP-DI), E. Dho (EP-DI), M. V. Dijk (BE-EA), R. Folch (BE-EA), X. Genillon (SY-EPC), S. Girod (BE-EA), D. Grzonka (EP-UOP), M. Jaekel (EP-DT), N. Y. Kahn (BE-EA), J. Lehtinen (EN-CV), X. P. Lopez (SY-ACE), B. Maksiak (EP-SME), P. Martinengo (EP-DT), D. Mcfarlane (EN-AA), L. Nevay (BE-EA), P. Podlaski (EP-SME), A. B. Roldan (BE-EA), A. Rummler (EP-ADO), P. Schwarz (TE-MSD), K. Sidorowski (BE-EA), D. P. Soderstrom (SY-STI), B. S. Sulpice (EN-EL), I. A. Vaquero (EN-ACE), B. M. Veit (EP-UFT), C. Vendeuvre (BE-GM), V. Verhoeven (EP-UOP).

## Action items (D. Banerjee) – Slides

No news yet on the cabling for ethernet for the ATEX ventilation works.

## Key information from Different Meetings

### SBA Highlights (D. Banerjee) – Slides

A summary was given as per the slides. There were updates to SAILOR items and D. Banerjee will update the list. The actions for CLOUD have been solved. For the AMBER TPC there is confirmation that there are no modifications of the platform required. Preliminary planning for the AD is under discussion.

Two items from the TIOC were noted. Firstly, that the East Area was impacted by an AUG event due to accidental damage during works in building 355 causing approximately 3 hours of down time due to a cascade of faults. Secondly, the NA62 detector was stopped due to a faulty temperature sensor.

### ECRs (N. Kahn) – Slides

The status of the ECRs for information and future approval was summarised and the full list can be found in the slides. One document is presented for approval.

- 1) Space Reservation Request – Fire-Resistant Partitions. Some recent comments will be addressed before release. **Approved.**
- 2) NA-CONS Fire Safety & Access WP 5.1.3 Fire-Resistant Partitions. **Approved.**
- 3) CESAR NA-CONS Renovation – Virtual Device Server Consolidation Plans. **Postponed** until the next EATM.
- 4) Installation of BK80, BK81 & BK82 Electrical Substations in the North Area during Run3. **Approved.**
- 5) Smoke Detector in EHN1 Galleries. **Approved.**

### Planning and Important Dates (B. Rae)

No report.

## P349 Experiment in 2025 (D. Grzonka) – Slides

**D. Grzonka** presented an outline of the proposed P349 experiment in 2025 that is proposed in the T11 zone in the East Area in front of the CLOUD chamber. A smaller test-beam setup will be used in August 2024 that will validate components of the experiment setup and the experiment will study elastic p-pbar scattering.

In 2025, a liquid hydrogen target will be included to induce scattering, and an overview of this setup was presented. The 2025 setup will be 3.5 m long and extend close to the CLOUD chamber necessitating the removal of the CLOUD hodoscopes attached to the safety railings in the line of the beam.

The liquid hydrogen target will have a volume of 400 cm<sup>3</sup> and will be contained inside a vacuum vessel. The target is a closed system and once filled does not need to be opened until the end of the run. The schematic of the gas handling system was presented. The liquid holder chamber will use 50 μm Kapton foil windows and the outer vacuum chamber 75 μm Kapton foil windows. The desired pressure of 1 bar as well as the filling pressure of 2 bar are well below the tensile strength limits of the windows of 6.5-7 bar.

The straw-tube detectors will use an Ar/CO<sub>2</sub> gas mixture at 2 bar supplied by a Teflon tube.

**E. Dho** will contact **D. Grzonka** for 2024 questions but there were none yet for 2025.

**L. Nevay** asked how long the 2025 run will be, to which **D. Grzonka** replied 6 weeks to 2 months. Therefore, this will be presented at the SPSC. The run would be most likely in the summer pending the final schedule for 2025.

### **CEDAR Refurbishment Plans Update (K. Sidorowski) – Slides**

In August, the CEDAR normally in PPE136 in H6 will be remounted and tested. Based on the outcome of these tests, the recently developed optics that are installed will be assessed and may be replaced.

CEDAR N06 is being refurbished to prepare a spare device. Having a spare CEDAR is a high priority and once prepared, it can be deployed in case of a failure of one in operation. This will involve full dismantling, replacement of perishable components and cleaning of the vacuum chamber. It is foreseen to be tested in H6 in September 2024 as this can be done parasitically and passively to the users there. A new measuring tool proposed by the EN-MME metrology group will be used to measure the precision of the diaphragms.

After the CEDAR N06 refurbishment, the two CEDARs in AMBER will be moved to the clean room in EHN1. There, the precision of the diaphragm movement will be measured using the EN-MME tool and improved to have better particle separation.

In September and October, it is foreseen to refurbish the CEDAR N03 from H2 if there is sufficient time after the AMBER CEDAR activities. Otherwise, it will be refurbished in the YETS 24/25.

**D. Banerjee** asked whether CEDAR N06 has the old optics. **K. Sidorowski** replied that yes, the optics will remain the same as were previously installed—the old optics. The motors will be refurbished and the optics realigned. The AMBER XCED will need to be installed before the 10<sup>th</sup> October (starting 7<sup>th</sup> October) and therefore changes to that CEDAR have to be done before then.

**N. Charitonidis** asked if there will be a report to document the refurbishment of the CEDAR N03 to which **K. Sidorowski** responded yes.

**B. M. Veit** commented that it is known the CEDARs are operated on a best-effort basis and therefore support of the weekend is not always possible although AMBER are very grateful for the current support. But for the future, during the AMBER Drell Yann run, they would either request better support or training for AMBER staff for out of working hour issues as the CEDARs will be a crucial device for the experiment.

### **Leaks Near NA61 (P. Podlaski) – Slides**

In recent weeks there have been some water leaks near NA61/SHINE. Several incidents were presented. An initial leak was from a drainpipe open to the floor close to the NA61 DAQ. A simple pipe supplied by NA61 helped guide this to a very close-by drain. In a separate incident, a corroded pipe ruptured, leaking water onto a nearby electrical cabinet. NA61 used the AUL and the cabinet was fully disconnected by EN-EL as the cabinet itself was still powered but only disconnected inside. A further incident in the same area, close to the power supply cabinets, was observed. This was turned off after discussion with EN-EL but some water had reached inside the cabinets. Scaffolding was needed for the repairs in this case. Eventually, it required 2 weeks for repair.

A fourth incident occurred in R-B63 in the NA61 workshop area in EHN1 where an AC unit was suspected. However, it was not clear what the origin of this source is.

**D. Banerjee** asked **J. Lehtinen** if there is any reason these happened in close vicinity to each other. No correlation was suspected between these incidents and, in the end, the chilled water distribution system requires consolidation. The specific corroded pipe will be replaced but in YETS 24/25 a further inspection will be done. It will be evaluated if the position of the water circulator can be moved for easier interventions in future should there be a problem.

**P. Podlaski** noted that the first leak was by design as the water pressure was higher than the demand and the safety valve. **J. Lehtinen** responded that there will be a fix for this to properly pipe the water to the drain in the YETS 24/25.

**D. Banerjee** asked if an additional permanent roof above the cabinets could be installed to prevent any further down time. **S. Girod** responded that yes, this is possible and has been added as an SBA item.

**R. Folch** suggested that there should be an action or small task force to follow this issue.

**A. Rummler** commented that although we are aware there is consolidation effort ongoing, there are still several roof leaks that continue in EHN1. **D. Banerjee** responded that the global roof fix is being followed with SCE.

## **News From Experiments**

**AMBER: B. Moritz Veit** – First beam period is finished. The hydrogen target has been emptied. The Drell Yann high intensity test was delayed to October preceding the PRM run.

**C. Ahdida** asked is it still the plan to do the high intensity hadron run on the 17<sup>th</sup> of July. **D. Banerjee** responded that this will be delayed to later in the year, however the 0.5 day high intensity muon test will remain as planned and that D. Banerjee will co-ordinate with HSE-RP.

**NA62: F. Duval** – there was again a recent access door issue, which is being actively followed.

**NA64: L. Molina Bueno** – finishing the setup in M2 and many thanks to **S. Girod** and the whole EA team. Small trackers and scintillator counters have been installed. The completion is foreseen for the end of the week with the EP Safety inspection booked for Friday 26<sup>th</sup> July.

**NA61: P. Podlaski** – two incidents to report. On Tuesday, July 9<sup>th</sup> a power glitch happened. All of the equipment went off as if an AUL was triggered. However, no AUL was pressed. EN-EL suspects glitch on 48V supply line. On the evening of July 12<sup>th</sup>, a significant amount of dust appeared suddenly in one of the experimental barracks (887/1-A61). It appeared on the floor, desk and all objects that were lying uncovered. The dust looked like the insulation material that are used in the barrack walls. **S. Girod** was notified and EN-CV experts came and removed foam found in the ventilation duct. An RP vacuum cleaner was used to clean the dust.

**D. Banerjee** asked if this was followed at the TIOC. **R. Folch** said it will be but it was not currently. EN-EL was called directly.

**D. Banerjee** asked **J. Lehtinen** what happened. **J. Lehtinen** responded that the air system supplies air through the false ceiling that is distributed through the air holes in the ceiling. The dust was present on the top of the ceiling but it was not known where it was from. The ceiling was opened and cleaned. But it was not part of the ventilation unit but a local issue on top of the false ceiling.

**CLOUD: offline report.** CLOUD has cleared the needed space in the T11 zone for the installation of the P349 experiment beam test in August.

**GIF++: P. Martinengo** – good operation.

**IRRAD/CHARM: - no report**

**HiRadMat: N. Charitonidis** – Preparing for commissioning and next operation will be in week 31/32.

L. Nevay, 7<sup>th</sup> August 2024