



Operation Board Meeting

MINUTES

Number

#10

Date

27 November 2017

Time & place

13:00 – 14:30; DESY, Bldg 24, R, 242

Participants

D. Nölle (DN)
H. Weise (HW)
R. Kammering (RK)
R. Wichmann (RW)
H. Sinn (HS)
Th. Tschentscher (TT)

Distribution

Email list OB

Agenda

- 1) Minutes and action items
- 2) Last week
- 3) Next week
- 4) Improvement activities
- 5) Assessment of operational risks, adjustments of operation schedule, etc.
- 6) AoB

1. Minutes of last meeting and action items

Minutes 007 & 008 meetings (incl. suggested changes) approved.

2. Last Week

Good delivery; average over user time: 830 μ J; max 1.2 mJ; downs max 1 hr.

One interlock trip (Sat, 21:20 hrs); RF stations okay; availability >90 %

Orbit stability (good until Wed; significant from Wed); factor 4 at Und entrance (5 \rightarrow 20 μ m); 2 possible sources: INJ & 1400 m; two old quad magnets in CS section (old power supplies with jitter)

Wavelength change by gap change \rightarrow observed problems with phase-shifter movements (unclear where problem resides); tuned phase shifter; observed gun phase (+/- 0.2 deg)

Startup on Wed was still difficult: not fully clear where problem resides.

Both experiments successful.

Switch to 120 bunches worked smooth; transmission to FXE so far not good; observed steep pulse energy decrease (800 \rightarrow 400 μ J)

3. Next Week

Tuesday: switch to Laser-2 (with lasing maintained)

Wednesday: IBFB, Kicker (SASE2) test; >15:00 instruments could use beam parasitically (FXE prep & timing of OL; XPD)

Thu – Tue: User operation; until 8:00-Tue; RC: T. Limberg

Tue (Dec 05): switch off INJ immediately to exchange gun; continue RF tests in main LINAC

4. Improvement activitiesUndulator dose issue:

Observation of decaying dose in Und entrance (up to seg 6-8) and 2nd hump starting around 16-18 and increasing up to ~30 (thereafter segments typically open). Dose rises with electron charge

TLDs have not yet been analysed. Try also to put neutron dosimeter to see high energy particle. Measure possible activation as function of distance into undulator (ideally Tue, Dec 05)

More detailed measurement of spectrum: PANDORA, RadFETs shielded with diff. layers of Pb,
→ will not close Seg31 now (since it is expected that int dose does not lead to measurable effect)

→ establish task force to determine diagnostics, measurement and simulation program

- DN, WD; NN (expert to measure energy discriminated doses; D3; FH, ...)

- JP, F..., HS,

Winter shutdown planning

Interlock tests – XTL, N- and S- Tunnels (S: 18/19 Dez)

Exchange gun

Works on CS9

Magnet tests in S-tunnels (2 wks in January)

5. Assessment of operational risks, adjustments of operation

6. AoB

11. Dez – Input to H. Weise about feedback by EUE users (→ TT)

Follow-up

Follow up	
04.1	Clarification of general safety organization. Safety organization for DESY site, XTL and accelerator tunnels T2,T4 established; safety organization for photon tunnels and OSBO and Schenefeld shaft buildings under discussion at XFEL GmbH → to follow up with S. Kozielski
06.1	PP laser timing connection 06. Nov: Meeting today at 16:00 hrs about timing pattern; synchronization link running, but requires attention. 20. Nov: Still problems with PP laser. Testing continues.