

28 August 2023

# ACCELERATORS & EXPERIMENTAL FACILITIES STATUS

## SUMMARY OF WEEK 34 - 2023

Technical infrastructure - *J. Nielsen*

Linac 4 - *G. Bellodi*

PS Booster - *S. Albright*

ISOLDE - *S. Mataguez*

PS - *A. Lasheen*

PS - East Area - *B. Rae*

PS - nTOF - *M. Bacak*

AD - ELENA - *S. Pasinelli*

SPS - *C. Zannini*

SPS - North Area - *B. Rae*

SPS - AWAKE - *G. Zevi Della Porta*

SPS - HiRadMat - *A. Goillot*

Linac 3 - *D. Kuechler*

LEIR - *R. Alemany*

LHC - *M. Solfaroli & J. Wenninger*

CLEAR - *P. Korysko*

## Technical Infrastructure (TI)

<b>Facility Coordinator last week</b>	Jesper Nielsen
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<b>Facility Coordinator this week</b>	Clement Pruneaux
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### Statistics

<b>Alarms</b>	13946		
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<b>Phone calls</b>	915	<b>Incoming</b>	540	<b>Outgoing</b>	375
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<b>ODMs</b>	158		
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### Facility Status

#### Summary

**Mon 21/08/23 21:26:** East experimental zone beam stopped (bat 157) du to demineralised water distribution pump fault from FDED-00355 cooling circuit. The process automatically switched on the backup pump. Piquet intervened and CV visually controlled later the pump and its control/power circuit without finding any obvious problem. It was not possible to make some running test and measurement to keep machine availability. A full test will be done the 30/08 on the faulty pump.

**Sat 26/08/23 03:30:** Loss of one cooling tower (from 4 initially) on BA6 raw water primary water supply for SPS. The TI operator went on site to acknowledge the vibration fault. Cooling tower restart then he realised that the coupling between the motor and the fan was broken. CV piquets were called to intervene. The TI operator then asked the SPS to lower their beam intensity to limit the rise in temperature during the repair work.



**Sat 26/08/23 11:53:** Low PH detected from BA7 environmental water reject station (WMS073). The PH dropped to 4 and then rose very slowly. SCE is aware of the problem during heavy rain after dry periods.

**Sat 26/08/23 17:40:** Impossibility of taking beam in building EHN1 (zones 138/148/158). SPS operation was not able to pass in "patrol" mode on door YDAP-PPE138. It was due to a faulty "UTL" which need a local reboot by piquet.

**Sun 27/08/23 16:34:** Impossibility of taking beam in the EHN2 building at the end of zone M2 PPE-221. Piquet was called and went on site to replace the door contact which was out of order.

<b>Issues</b>				
<b>Plans</b>				
<b>Intervention Request</b>				
<b>Yes / No</b>	<b>Duration</b>		<b>Preferred date/time</b>	
<b>Reason</b>				
<b>Impact</b>				

<b>Linac 4</b>			
<b>Machine Coordinator last week</b>		G Bellodi	
<b>Machine Coordinator this week</b>		P Skowronski	
<b>Statistics</b>			
<b>Availability</b>	98.8%		
<b>Facility Status</b>			
<b>Summary</b>	A rather good week.		
<b>Issues</b>	<p>On Tuesday afternoon LT.QF060 became unresponsive and PIPO had to intervene to fix the problem by changing the control card with the specialist. (1h20' downtime).</p> <p>Several DTL1 vac trips during the week (25' total downtime). An inspection was made on Friday in the shadow of the PSB/PS beam stop and it revealed that most likely it's a problem with the HV of the vacuum pump on the klystron side. After cables' swap the threshold for a trip is now 10 times higher. The adopted strategy is to keep operating like this (resetting trips with the sequencer when they happen) until the YETS, unless conditions deteriorate.</p> <p>On Sunday night, CCDTL1-2 trip. (~15' downtime).</p>		
<b>Plans</b>	Regular operation		
<b>Intervention Request</b>			
Yes / No	<b>Duration</b>		<b>Preferred date/time</b>
<b>Reason</b>			
<b>Impact</b>			

<b>PS Booster</b>			
<b>Machine Coordinator last week</b>		Simon Albright	
<b>Machine Coordinator this week</b>		Federico Roncarlo	
<b>Beam Scheduled</b>			
<b>ISOLDE</b>	Yes	<b>PS</b>	Yes
<b>Beam Availability by Destination (AFT)</b>			
<b>ISOLDE</b>	96.5%	<b>PS</b>	96.5%
<b>Facility Status</b>			
<b>Summary</b>	<ul style="list-style-type: none"> <li>• Mostly smooth operation, only significant fault was approximately 1 hour down time due to a communication problem for the BI.DIS</li> <li>• In preparation for the LHC restart, the relevant cycles have been played and brought back to specification</li> <li>• In the shadow of the PS access on Friday, there were two interventions: <ul style="list-style-type: none"> <li>◦ BI4.BSW1L1 to solve a warning in LASER, another intervention is required</li> <li>◦ BT2.KFA20 to improve the regulation, but the problem is not completely solved</li> </ul> </li> </ul>		
<b>Issues</b>	<ul style="list-style-type: none"> <li>• A small number of routine equipment resets</li> <li>• Communication failure of BI.DIS, which required local intervention to power cycle the module</li> </ul>		
<b>Plans</b>	<ul style="list-style-type: none"> <li>• Next access for QFO11 and BI.BSW visual inspection is scheduled for Thursday 31/08</li> <li>• Routine operation and MD schedule</li> </ul>		
<b>Intervention Request</b>			
Yes/No	<b>Duration</b>		<b>Preferred date/time</b>
<b>Reason</b>			
<b>Impact</b>			

<b>ISOLDE</b>					
<b>Machine Supervisor last week</b>		Simon Mataguez			
<b>Machine Supervisor this week</b>		Miguel Luis Lozano Benito			
<b>Beam Scheduled</b>					
<b>GPS</b>	No	<b>HRS</b>	Yes	<b>HIE-ISO</b>	Yes/No
<b>Beam Availability by Destination (AFT)</b>					
<b>GPS</b>	%	<b>HRS</b>	95%	<b>HIE-ISO</b>	95%
<b>Facility Status</b>					
<b>Summary</b>	<p><b>HRS:</b></p> <ul style="list-style-type: none"> <li>- Run is going smooth Zn beams to CRIS IS682 at 30kV</li> </ul> <p><b>GPS:</b></p> <ul style="list-style-type: none"> <li>- Target change on Thursday morning #811 UC HQ n to be used in the IS557 experiment 80Zn+ 4.7MeVu this week (35)</li> </ul> <p><b>REX/HIE-ISOLDE:</b></p> <ul style="list-style-type: none"> <li>- Preparation of reference set-up for physics using A/q=4.0</li> <li>- Rephasing and set-up of the linac.</li> </ul>				
<b>Issues</b>	<p>23/08 2.00am Problems with the RILIS lasers (Tisa 2 (step 1) had gone multimode). RILIS expert called and fixed (Re-optimized and walked the cavity a bit)</p> <p>Trips, drifts and instabilities of the IHS structure (23/08) causing the loss of the beam. The cavity had to be readjusted often. Difficult week for set-up of the Linac. 7GAP1 phase closed loop repaired by Giampaolo 23/08.</p> <p>Thursday evening 24/08 HRS HT indicator is green but cannot control it, no beam. restarting cfx-170-mkisht1</p> <p>25/08 Injector complex (Booster &amp; PS) issues</p> <p>25/08 YHRS.Line-Heat trips – a trivolt power supply exchanged. According to CRIS, the rates have been down by over an order of magnitude on both stable and radioactive isotopes. No obvious solution, it seems coming from the target.</p> <p>27/08 YHRS.Target-Heat trips – reset ok</p>				
<b>Plans</b>	<p><b>HRS:</b></p> <ul style="list-style-type: none"> <li>- IS682 stop 28/08 during day</li> </ul> <p><b>GPS:</b></p> <ul style="list-style-type: none"> <li>- Stable Setup of separator and RA0-TRAP line. (RILIS 29/08)</li> </ul> <p><b>REX/HIE-ISOLDE:</b></p> <ul style="list-style-type: none"> <li>- Stable 22Ne6+ to Miniball for calibration (29-30/08)</li> <li>- IS557 experiment 80Zn+ 4.7MeVu scheduled to start Thursday 31/08 night</li> </ul>				
<b>Intervention Request</b>					
Yes / No	<b>Duration</b>		<b>Preferred date/time</b>		
<b>Reason</b>					
<b>Impact</b>					

PS							
<b>Machine Coordinator last week</b>		Alexandre Lasheen					
<b>Machine Coordinator this week</b>		Rubén García Alía					
Beam Scheduled							
<b>East Area</b>	Yes	<b>nTOF</b>	Yes	<b>AD</b>	Yes	<b>SPS</b>	Yes
Beam Availability by Destination (AFT)							
<b>AD</b>	91,4 %	<b>EA N</b>	91,4 %	<b>EA T8</b>	91,4 %	<b>EA T9</b>	91,4 %
<b>nTOF</b>	91,4 %	<b>SPS</b>	91,4 %				
Facility Status							
<b>Summary</b>	<ul style="list-style-type: none"> <li>- Fair availability for the PS although three accesses were necessary along the week.</li> <li>- Follow-up for the vacuum leak from W33 <ul style="list-style-type: none"> <li>o Investigations on the beam conditions for high intensity beams were checked (MD with SFTPRO beam at 3300e10 ppp).</li> <li>o The beam intensity reach remained lower than the maximum performance of 2022-2023.</li> <li>o Nonetheless, as agreed at the IPP, the beam intensity will now be limited to 3000e10 ppp as a precaution and minimize risks during the ion run.</li> </ul> </li> <li>- Follow-up on barrier bucket issues from W33 <ul style="list-style-type: none"> <li>o Modification of software deployed on Monday, no issue over the W34. Will be monitored on the long run.</li> </ul> </li> <li>- The ion commissioning started on Tuesday with the EARLY beam. <ul style="list-style-type: none"> <li>o Excellent progress, the EARLY bunch was accelerated and extracted within specifications and should be ready for SPS commissioning in W35.</li> <li>o Progress was also made on the IEAST cycle.</li> </ul> </li> </ul>						
<b>Issues</b>	<ul style="list-style-type: none"> <li>- Three accesses required for the PS <ul style="list-style-type: none"> <li>o Access to adjust water flow for SMH42 cooling which was responsible for x2 long faults</li> <li>o Replacement of 5x RF gap relays on different cavities. First two were found completely broken, decision taken on Friday after third failure to verify all gap relays. Two extra gap relays replaced as precaution. No effective sign that events could be related.</li> </ul> </li> <li>- One piquet intervention over the weekend for a broken RF front end power supply.</li> </ul>						
<b>Plans</b>	<ul style="list-style-type: none"> <li>- Continuation of the ion beam commissioning</li> <li>- Delivery of first ion bunches to the SPS</li> </ul>						
Intervention Request							
No	<b>Duration</b>		<b>Preferred date/time</b>				
<b>Reason</b>							
<b>Impact</b>							

PS East Area							
<b>Facility Coordinator last week</b>		B. Rae					
<b>Facility Coordinator this week</b>		J. Bernhard					
Beam Scheduled							
<b>T8</b>	Yes	<b>T9</b>	Yes	<b>T10</b>	Yes	<b>T11</b>	No
Beam Availability by Destination (AFT) General:90.8%							
<b>Running T8</b>	90.8%	<b>T9</b>	90.8%	<b>T10</b>	89%	<b>T11</b>	N/A
Facility Status							
<b>Summary</b>	<b>T09:</b> No Issues. <b>T10:</b> No issues. <b>T11:</b> No user.						
<b>Issues</b>	<b>General:</b> On Monday evening, a water pump failure happened in building 355 (pump P101). This led to a cut of all magnets in EAST. The piquet had to intervene, resulting in about 45 min downtime. On Wednesday morning, access is planned to inspect and change the pump.						
<b>Plans</b>	<b>T09:</b> ENUBET → HERD. <b>T10:</b> EIC dRICH → MPGDCAL						
Intervention Request							
Yes	<b>Duration</b>	2 h		<b>Preferred date/time</b>	31.05.2023 8:00		
<b>Reason</b>	Change/inspect water pump						
<b>Impact</b>	No beam in East experimental Areas						



PS nTOF			
<b>Facility Coordinator last week</b>		Michael Bacak	
<b>Facility Coordinator this week</b>		Michael Bacak	
Beam Requested			
Yes			
Facility Status			
<b>Summary</b>		Progressing with physics programme according to planning.	
<b>Issues</b>		No issues on experiment side	
<b>Plans</b>		<p>Quite busy Wednesday on experiment side:</p> <ul style="list-style-type: none"> <li>• EAR1: <ul style="list-style-type: none"> <li>○ Change from fission (80 mm) to capture collimator (18 mm)</li> <li>○ Bunker: swap to 12C(n,cp) with silicon annular detector + 10B(n,a) and 12C(n,cp) with Time-/GEMPix</li> <li>○ Neutron Escape Line (NEL): 4 week R2E run finished, Diamond and SiC detector tests.</li> </ul> </li> <li>• EAR2: <ul style="list-style-type: none"> <li>○ <math>^{26}\text{Al}(n,p)</math> and <math>(n,a)</math></li> <li>○ RP adding temporary monitors in bunker</li> </ul> </li> <li>• NEAR: stop/access for R2M samples rabbit2 (Wed)</li> </ul>	
Foreseen Beam Stop			
Yes	<b>Duration</b>	8-10h	<b>Date/Time</b> WED 30.08.23; 09h00

<b>AD - ELENA</b>			
<b>Machine Supervisor last week</b>		S.Pasinelli	
<b>Machine Supervisor this week</b>		L.Bojtar	
<b>Beam Scheduled</b>			
<b>AD</b>	Yes	<b>ELENA</b>	Yes
<b>Availability (AFT)</b>			
<b>AD</b>	90.5%	<b>ELENA</b>	90.5%
<b>Facility Status</b>			
<b>Summary</b>	<p>Quiet week.</p> <p>Following the last fault on the horn, specialist has changed a power supply.</p> <p>During the MD time:</p> <ul style="list-style-type: none"> <li>• scan of the vertical position of the beam on the target</li> <li>• scan of the horn strength Vs target position</li> </ul>		
<b>Issues</b>	One trip of the DR.QUAD during the week. CCC has tried to reset it, without success. First line was called.		
<b>Plans</b>			
<b>Intervention Request</b>			
Yes / No	<b>Duration</b>		<b>Preferred date/time</b>
<b>Reason</b>			
<b>Impact</b>			

SPS							
<b>Machine Coordinator last week</b>		Carlo Zannini					
<b>Machine Coordinator this week</b>		Kevin Shing Bruce Li					
Beam Scheduled							
<b>LHC</b>	No	<b>NA</b>	Yes	<b>AWAKE</b>	Yes	<b>HiRadMat</b>	Yes
Beam Availability by Destination (AFT)							
<b>LHC</b>	%	<b>NA</b>	92.8%	<b>AWAKE</b>	99.9%	<b>HiRadMat</b>	99.8%
Facility Status							
<b>Summary</b>	<p>Good week at the SPS mainly with beam to the North Area (NA), HiRadMat run, dedicated MDs on Wednesday and short parallel MDs on Thursday and Friday. Moreover, AWAKE run started during the weekend</p> <p><b>North area (SFTPRO beam):</b></p> <ul style="list-style-type: none"> <li>Intensity adjustment on SFTPRO as requested.</li> <li>Dedicated MDs on Wednesday on crystal shadowing</li> </ul> <p><b>HiRadMat:</b> Beam to HiRadMat as/when requested. HiRadMat run finished on Friday around 12h.</p> <p><b>AWAKE:</b> beam delivered according to request during the weekend</p> <p><b>MDs:</b></p> <ul style="list-style-type: none"> <li>Short parallel MDs on Thursday and Friday (longitudinal and transverse instability studies with single bunch)</li> <li>Dedicated MDs on crystal shadowing on Wednesday with <b>8b4e test in parallel:</b> achieved 2.15e11 ppb with 4 batches of 56 bunches. Limitation from vacuum spikes at the TT60 junction (VVFA_61880?)</li> </ul> <p><b>Others:</b></p> <ul style="list-style-type: none"> <li>Good progress in RF hardware commissioning for ion run on Thursday afternoon (~3h during HiRadMat access)</li> <li>SBDS test with oxygen cycle LHC ion4 (13 GeV injection energy): system worked properly with 400 GeV (SFTship), 450 GeV (LHC pilot) and 200 GeV (MD1) preceding cycle</li> <li>Test of the automatic bayesian optimization of longitudinal blow-up during Wednesday MDs</li> <li>RF800 MHz cavity 2 issue identified and fixed: low optical level on interlock optical fiber.</li> <li>Preparation of LHCpilot and LHCINDIV</li> </ul>						
	<b>Issues</b>	<ul style="list-style-type: none"> <li>Some cavity 1 200 MHz trips (~0.5 h downtime)</li> <li>The first 4 BPM of HiRadMat transfer were not operational (access needed to resolve the issue: no downtime).</li> <li>HiRadMat extraction interlock due to the TT66A FCMC-MBS on the RBIH.660004. Issue fixed changing the voltage amplifier (no downtime)</li> </ul>					
<b>Plans</b>	LHC, NA physics, AWAKE run, dedicated MDs for NA on Wednesday and short parallel MDs on Monday and Tuesday						
Intervention Request							
No	<b>Duration</b>			<b>Preferred date/time</b>			
<b>Reason</b>							
<b>Impact</b>							

SPS North Area							
<b>Facility Coordinator last week</b>		B. Rae					
<b>Facility Coordinator this week</b>		J. Bernhard					
Beam Scheduled							
<b>H2</b>	Yes	<b>H6</b>	Yes	<b>K12</b>	Yes	<b>P42</b>	Yes
<b>H4</b>	Yes	<b>H8</b>	Yes	<b>M2</b>	No	<b>TT20</b>	Yes
Beam Availability by Destination (AFT) General: 92.4%							
<b>H2</b>	92.4%	<b>H6</b>	92.4%	<b>K12</b>	92.3%	<b>P42</b>	92.4%
<b>H4</b>	91.4%	<b>H8</b>	91.4%	<b>M2</b>	92.4%	<b>TT20</b>	92.4%
Facility Status							
<b>Summary</b>	<p><b>H2:</b> Normal operation.  <b>H4:</b> Normal operation  <b>H6:</b> Higher intensity week. No problems.  <b>H8:</b> Contradicting beam requests from LHCb (large beam, high intensity) and SELDOM (parallel, small beam) lead to difficult operation.  <b>M2:</b> Beam to be re-checked with higher T6 intensity for MUonE on 28.08.  <b>P42/K12:</b> Mostly good operation.  <b>Sharing:</b> MUonE would like 50 units on T6 from as soon as possible. Atlas Tilecal requested higher electron purities, which means one would need a longer T4 target head and more protons on T4 from Wednesday.  Monday: 50 (T2) - 37 (T4) - 50 (T6)  Wednesday: 50 (T2) - 56 (T4) - 50 (T6) Note: T4 to be adapted to give 22 on T10.</p>						
<b>Issues</b>	<p><b>H2:</b> Moving beam issue still present due to magnet / power converter problems that need to be identified, SY/EPC following → Tests planned for Tuesday morning from 9h to 11h, implying no beam for experimental areas during the test.  <b>H4:</b> Goliath and David power converters take too long to ramp up, creating timeouts on CESAR. After investigation, it seems that it comes from FESA configuration. Experts will be back on Monday and will check then.  <b>P42/K12:</b> MP33 current fluctuation and one trip that led to a full trip of the LKr detector. EPC didn't notice anything wrong on the PC. Users/operators would need to call first line or experts as soon as it happens again without doing a reset. Some further fluctuations on other magnets that triggered P0survey a few times.</p>						
<b>Plans</b>	<ul style="list-style-type: none"> <li>• H2: LHCb continues.</li> <li>• H4: RD51/GIF++ continues.</li> <li>• H6: MONOLITH, EP PIXEL → ATLAS HGTD, AIDAINNOVA, RD42.</li> <li>• H8: LHCb, SELDOM → ATLAS TileCal, LHCb muon and SND continue parasitically.</li> <li>• M2: MUonE continues.</li> </ul>						
Intervention Requests							
No	<b>Duration</b>		<b>Preferred date/time</b>				

<b>SPS AWAKE</b>			
<b>Facility Coordinator last week</b>		Giovanni Zevi Della Porta	
<b>Facility Coordinator this week</b>		-	
<b>Facility Status</b>			
<b>Summary</b>	<p>Completed preparation for proton run:</p> <ul style="list-style-type: none"> <li>- Plasma light calibration with argon, followed by pump down</li> <li>- Microsecond camera installation</li> <li>- Contractor intervention for over-temperature (OTC) circuit failure in plasma source</li> </ul> <p>Started proton run:</p> <ul style="list-style-type: none"> <li>- Saturday PM: single-event upset on plasma source failsafe card after &lt;1 hour of beam, required access to safely reboot</li> <li>- Sunday: power supply issue on RBI.410010, solved by Piquet on site. Another OTC circuit failure, solved after access. Laser pre-pulse investigation (see below)</li> </ul>		
<b>Issues</b>	<p>Vapor source OTC circuit failure bypassed but not understood, under investigation</p> <p>Apparent low-density plasma ahead of laser pulse, consistent with a pre-pulse, under investigation</p>		
<b>Plans</b>	Proton run: study the effect of a plasma density step using plasma light and potentially probe electrons		
<b>Foreseen beam stop</b>			
Yes / No	<b>Duration</b>		<b>date/time</b>

SPS HiRadMat			
<b>Facility Coordinator last week</b>		Alice Goillot	
<b>Facility Coordinator this week</b>		Alice Goillot	
Facility Status			
<b>Summary</b>	<p><b>TPSG4 test</b>  <b>Monday:</b> Beginning of beam tuning: ~20x 1b @ 2.1e10ppb  <b>Tuesday + Wednesday:</b> TPSG4 hydraulic system failure and mitigation  <b>Wednesday: Dedicated MD</b> until 18h00 and confirmation of the system stability  <b>Thursday:</b> ~20x 1b @ 1e10ppb for steering and beamline setup  3x 1b @ 1e11ppb for radiographic paper  72b @ 1.74E11ppb  216b @ 1.75E11ppb  288b @ 1.75E11ppb  <b>Friday:</b> 20x 1e10 for steering  288b @ 1.7e11ppb with 1.7 ns bunch length  Meanwhile the SY/BI team took useful data for the LHC BLMs parasitically</p>		
<b>Issues</b>	<p><b>Monday:</b> BPM stopped working (crate crashed). Replaced by the SY/BI team the same day.</p>		
<b>Plans</b>	<p>Extremely nice coordination between BE-OP-PS, BE-OP-SPS and the MD coordination team.  <b>No more HiRadMat operation in 2023</b>  <b>Week 35:</b> quick access to switch off the hydraulic system of the experiment  Experiment disassembling <b>not before week 41</b>. During YETS, various facility upgrades followed up by BE-EA and SY/STI.</p>		
Intervention request			
Yes	<b>Duration</b>	<1h	<b>date/time</b>
			Monday 27.08

<b>LHC</b>			
<b>Machine Coordinator last week</b>		M.Solfaroli&J.Wenninger	
<b>Machine Coordinator this week</b>		M.Solfaroli	
<b>Statistics</b>			
<b>Availability</b>	n.a.	<b>Stable Beam Ratio</b>	n.a.
<b>Facility Status</b>			
<b>Summary</b>	Cryo ready for powering. ELQA of ITL8, 13 kA circuits and Q6.L8 (NO non conformity identified). About 50% of powering tests completed. Long cryo recovery after test with heater firing at ~3 kA on RQX.L8.		
	Machine closed, access restricted to interventions needed to prepare beam operation. Caverns closed and patrolled.		
	RF conditioning completed on Friday (possible access needed on Monday to fix interlock problem).		
<b>Issues</b>	RQD.A78 Energy Extraction problem (to be fixed on Monday)		
<b>Plans</b>	Beam operation expected to resume between Tuesday and Wednesday, after completion of powering tests and machine check-out		
<b>Intervention Request</b>			
Yes / No	<b>Duration</b>		<b>Preferred date/time</b>

<b>Linac 3</b>			
<b>Machine Supervisor last week</b>	D. Kuechler		
<b>Machine Supervisor this week</b>	R. Wegner		
<b>Statistics</b>			
<b>Availability</b>	%		
<b>Facility Status</b>			
<b>Ion species</b>	lead		
<b>Summary</b>	<ul style="list-style-type: none"> <li>- Stable operation all week</li> <li>- More than 35eμA out of the linac</li> </ul>		
<b>Issues</b>	<ul style="list-style-type: none"> <li>- Two trips of RFQ and tank1 that needed specialist intervention</li> </ul>		
<b>Plans</b>	<ul style="list-style-type: none"> <li>- 28.08. oven refill (source intervention and longer downtime cannot be excluded)</li> </ul>		
<b>Intervention Request</b>			
Yes / No	<b>Duration</b>		<b>Preferred date/time</b>
<b>Reason</b>			
<b>Impact</b>			



<b>LEIR</b>			
<b>Machine Supervisor last week</b>	Reyes Alemany Fernandez		
<b>Machine Supervisor this week</b>	Theodoros Argyropoulos		
<b>Statistics</b>			
<b>Availability</b>	Beam Commissioning		
<b>Facility Status</b>			
<b>Ion species</b>	Pb		
<b>Summary</b>	<ul style="list-style-type: none"> <li>-Commissioning of EARLY continued. Good transmission achieved already (85%) and intensities of <math>\sim 1.5-1.7 \times 10^{10}</math> c at extraction.</li> <li>-Wrong polarity in some ring BPMs found and corrected.</li> <li>-Beam was extracted to the PS without major issues.</li> <li>-Commission of the NOMINAL cycle started. 7 injections were achieved with half of the required intensity at flat-top (<math>\sim 4.5 \times 10^{10}</math> c).</li> </ul>		
<b>Issues</b>	<ul style="list-style-type: none"> <li>-Frequent trips of EE.QDN20. Solved by the expert</li> <li>-Problem of the cavity CRF41 tripping due to high gap voltage. Temporarily switched to CRF43. Now, back in C41 and problem is being investigated by the expert.</li> </ul>		
<b>Plans</b>	-Continue commissioning of NOMINAL cycle.		
<b>Intervention Request</b>			
Yes / No	<b>Duration</b>		<b>Preferred date/time</b>
<b>Reason</b>			
<b>Impact</b>			

## CLEAR

**Facility Coordinator last week** Pierre Korysko

**Facility Coordinator this week** Wilfrid Farabolini

### Facility Status

**Summary**

Last week was dedicated to one experiment:

- CLEAR **Plasma Lens Experiment** to create strongly diverging beams without scattering (with the University of Oslo).

**Issues**

No major issue.

**Plans**

This week is dedicated to three experiments:

- **Uniform beam irradiations** using a double-scattering foil system (with the University of Oxford).
- **Chemistry studies** with Very High Energy Electrons (**VHEE**) at Ultra High Dose Rate (**UHDR**) to observe the **FLASH** Effect (with CHUV).
- **Dosimetry studies** for Cancer Therapy with VHEE at UHDR.