

Linac4 action list

| | action | person | status | date |
|-------------------------------------|---|------------------------------|---|-----------|
| SM18 high-power test stand | | | | |
| <input type="checkbox"/> | exchange pumps in bunker, replace ion with turbo pumps when module 3 is installed | JM/Jan | in preparation | 14-Nov-13 |
| <input type="checkbox"/> | buy 2nd power meter | Han | on 69742 | |
| <input type="checkbox"/> | need automatic frequency tuning to compensate | Marc/Jose/ Nuaman | code ready, what is missing is implementation of signal delays and then testing, | |
| movable tuners | | | | |
| <input type="checkbox"/> | prepare test of DTL type coupler with inclination | Jose/Yves/JM | horizontal test in preparation | 3-Oct-13 |
| <input checked="" type="checkbox"/> | fabricate dummy pistons and measure port diameters of CCDTL using dummy pistons | Yves/JM | CCDTL ports have a diameter of 84.4 mm, piston will be machined to 81 mm | 21-Nov-13 |
| <input type="checkbox"/> | measure alignment of MEBT pistons | JM/Yves | | |
| <input checked="" type="checkbox"/> | modification of plans until 15. November (e.g. reduced piston diameters) | Yves | done | 21-Nov-13 |
| <input type="checkbox"/> | movable tuner installation on bunchers in week 50 | | | |
| <input type="checkbox"/> | simulation of tuner geometry without rings (for RF joints) and with reduced piston diameter | Shakir | simplified equivalent model established in CST, which reproduces detailed bellow geometry | |
| <input type="checkbox"/> | try prototype on Indian coupler to see if penetration is sufficient for matching in SM18 | Rolf/Jose | | |
| 3 MeV installation in Linac4 | | | | |
| <input type="checkbox"/> | RF tests of buncher amplifiers | Han/Jose | week 49-50 | |
| <input type="checkbox"/> | scaffolding for RF feeder line installation | Han | week 47 | |
| <input type="checkbox"/> | install RF feeder lines for buncher cavities | db | week 48-49 | |
| <input type="checkbox"/> | install RF feeder line for debuncher (routing to be clarified with JP Corso) | db/Han | week 48-49 | |
| <input type="checkbox"/> | RF tests on buncher amplifiers | Han/Jose | after above | |
| <input type="checkbox"/> | slug tuners are not yet cooled | Jose | after first tests, | |
| <input type="checkbox"/> | interlock tests/commissioning | Jose | ongoing | |
| <input type="checkbox"/> | re-design and fabrication of buncher pick-ups | Yves/Frank/ JM | will be ready in some days | 7-Oct-13 |
| waveguide couplers | | | | |
| construction in India | | | | |
| <input checked="" type="checkbox"/> | prepare CERN-India meeting on October, 11th and clarify production strategy | Frank | gave mid-November as limit date to receive a conform Linac4 coupler, | |
| <input checked="" type="checkbox"/> | reminder that a conform prototype is expected mid-November | Frank | construction finished by 27. Nov, then Cu plating | |
| construction at CECOM | | | | |
| <input type="checkbox"/> | packaging of raw material (series) for CECOM | JM/Suitbert | will be delivered after acceptance test of pre-series, delivery will take place probably in October, | |
| <input type="checkbox"/> | | | | |
| <input type="checkbox"/> | multipacting simulation | Nuaman | | |
| jacks | | | | |
| <input checked="" type="checkbox"/> | complete series of 2.5 and 5 t jacks | Yves/Suitbert | received everything (apart from one) | 7-Nov-13 |
| <input type="checkbox"/> | installation of jacks (CCDTL + PIMS1) before February 2014 | Frank/Benoit | install DTL and CCDTL1/2 jacks later (conflict with measurement line), wait with PIMS | |
| CCDTL | | | | |
| assembly in SM18 | | | | |
| <input type="checkbox"/> | quad installation module 6 | JB | re-machined and installed, now to be re-measured, vacuum chamber to be installed, | 21-Nov-13 |
| <input type="checkbox"/> | quad installation module 7 | JM/JB | ready for installation, vacuum chamber to be prepared, | 21-Nov-13 |
| <input type="checkbox"/> | survey module 1 before quad installation to be done | | | |
| <input type="checkbox"/> | conditioning of module 3 | JM/Jose/ Frank/ Nuaman | | |
| <input type="checkbox"/> | collect vacuum tests (EDMS) for all measurements made, need to clarify when vacuum group makes their "reference" measurement before installation. | Frank/Jan | | |
| DTL | | | | |
| construction | | | | |
| <input checked="" type="checkbox"/> | fabrication of Al covers for ports for vacuum tests, | Yves | done | 21-Nov-13 |
| <input type="checkbox"/> | final machining of covers tank2,3 | | will be done after tank1 measurements/remachining, then it will take ~4 months, | |
| <input type="checkbox"/> | delivery T3S2 | | some repair to be done at CERN, repair started, | 21-Nov-13 |
| <input type="checkbox"/> | T3S3 connection to a water channel needs modification (now it does not connect to the actual channel) | | specific milling tool was ordered, delay 6 weeks | 21-Nov-13 |
| <input type="checkbox"/> | manufacturing of nominal intertank segments for tank2 and 3 | Suitbert/Yves | expected mid February | |
| <input checked="" type="checkbox"/> | drift tube installation in T3S4 | Yves | 2 leaks on pick-ups found with the same leak rate, to be investigated, for pre-assembly molikote was used on screws, some dropped on Helicoflex joint and caused the leaks, one should always use silver plated screws instead, completely installed and leak tight | 21-Nov-13 |
| <input checked="" type="checkbox"/> | assembly of T1S1 and T1S2 | Yves/Suitbert | done on rotating support, survey of half tank alignment done, seems to be just within limits, t.b.v. | 29-Sep-13 |
| <input type="checkbox"/> | low-level RF measurements of tank 1 | | working on tilt compensation, frequency slightly too low, | 3-Oct-13 |
| <input type="checkbox"/> | last 24 drift tubes assembly + last weld + qualification | | within next month | 7-Nov-13 |
| <input type="checkbox"/> | T2S2 some problems with concentricity and module length, verify if acceptable | Suitbert | is acceptable, final machining still to be done, module length will be averaged, | 14-Nov-13 |
| <input type="checkbox"/> | T2S1 metrology | | sent from CADINOX, shows some problems | 21-Nov-13 |
| <input type="checkbox"/> | | | | |
| PIMS | | | | |
| <input type="checkbox"/> | go through Patricia's work on tuning curves for tuning islands, complete simulations, calculate curves and tables the 3 different cell types for cavity M | Rolf | good progress, so far we seem to be well prepared, cavity M done, continuing with L | |
| <input type="checkbox"/> | qualification of disc production for series | CERN workshop | ok given for discs of cavity 3 and 4 (coaxiality problem (4 times tolerance) => waiting for metrology of fully assembled cavity, steps on nose cone tip => waiting for high power test results) | |
| <input type="checkbox"/> | metrology of central disc M_8-9 and ring M_9-10 | Rolf | not yet received, preparation for re-machining, should be done next week | 17-Nov-13 |
| <input type="checkbox"/> | assembly and inspection of cavity M | Rolf | | |
| <input type="checkbox"/> | if time permits, optimise tuning of PIMS cavities (Octave routines, network analyser communication, intelligent tuning suggestion) | Rolf | | |
| <input type="checkbox"/> | determine amount of re-machining for all discs cavity M | Rolf | | |
| <input type="checkbox"/> | re-machining of discs cavity M | Rolf | | |
| <input type="checkbox"/> | problem with ring M11-12 prevents green light for series until | Rolf | trapped volume of air can probably be opened to cavity vacuum | |
| <input checked="" type="checkbox"/> | rings for 3 cavities are sent to Jülich | | ready and arrived back in Poland, travellers received | 7-Nov-13 |
| <input type="checkbox"/> | backings need to be machined, then X-ray test of weldings | NCBJ | | 21-Nov-13 |
| <input type="checkbox"/> | 2nd waveguide ring will be done after disc machining | | | 17-Nov-13 |
| <input checked="" type="checkbox"/> | meeting with workshop to prepare reception of first cavity | Rolf | meeting slides, | 21-Nov-13 |
| <input type="checkbox"/> | all pieces for first cavity at CERN | Rolf | | 19-Nov-13 |
| <input type="checkbox"/> | received some auxiliary pieces but not all | | | 21-Nov-13 |
| windows | | | | |
| SPL/HOM | | | | |
| MTF | | | | |
| <input type="checkbox"/> | MTF input DTL | SR/RVT | drift tube data being uploaded, | |
| <input type="checkbox"/> | MTF input CCDTL | SR/FG/RVT | started | |
| <input type="checkbox"/> | MTF input PIMS | FG/SR/RVT | started | |
| <input type="checkbox"/> | MTF input buncher cavities | FG/SR/RVT | | |
| A.O.B. | | | | |
| <input type="checkbox"/> | revision of RF structure transport into tunnel (meeting with Catherina, Rolf, Suitbert, Frank) | | | |
| <input type="checkbox"/> | Han measured too high RF radiation (for interference limits, no issue with personnel safety) close to the RFQ klystron, data needs verification | Han | ? | 7-Oct-13 |

Operations & maintenance

| | action | person | status | date |
|---------------------------|--|--|--|-----------|
| shut-down work | | | | |
| | Modulator | Vince | done | |
| | HV power supply + hazemeyer and regulation are responsibility of power group, HV line and ignitrons and interlock is with us | | | |
| Frank James | | | | |
| <input type="checkbox"/> | prepare a complete spare amplifier (apparently all pieces are available from Linac3 spare amplifier) until beginning of June 2014 | Vince/Han/ Frank | missing is the ramping up of filament system, including testing ~60 kCHF, agreement by Erk that this project will be financed one way or another | |
| <input type="checkbox"/> | RFQ cavity base: try to remove some corrosion from all the fixed parts to avoid that rust gets into the movable parts, verify if there is a water leak (internal/external) responsible for corrosion and apply some spray... | Vince/JM | needs water to fully test, | |
| <input type="checkbox"/> | completion of 4 FJ amps (buncher, debuncher L2), capton needs to be ordered, installed tested (CU plating to be clarified) | Han | | |
| Linac2 maintenance | | | | |
| <input type="checkbox"/> | tuner maintenance | Vince | basically done | 18-Jul-13 |
| <input type="checkbox"/> | 1. June first beam to isolde, so mid-may beam to PSB, | | motors and switches done by us, if there is a problem with moving the tuners (dirt, grease) Richards section is responsible, | |
| <input type="checkbox"/> | interlocks still need to be connected/verified, | | | |
| | from now on the tunnel can no longer be accessed with RF on, | | | 7-Nov-13 |
| | a procedure is under discussion if we can access the tunnel with source off and RF on, | | | 7-Nov-13 |
| <input type="checkbox"/> | 2 months of interlock tests are foreseen before start-up, which coincides with our amplifier tests, | | | |
| <input type="checkbox"/> | we need at least 1 month with continuous access to the RF system, we need 3 weeks with continuous access to prepare for an exchange of a power coupler before March 1st to do the measurements on the coupler which showed the problem (tank 1). Access to the gallery, to the tunnel, to the complete power transport line. + 1 week of tests with beam | Frank/Detlef, Jose, JM, Han, Vince | Monday 2. December 10:00 discussion on RF commissioning of linacs with Detlef, Richard, Christiano, Tuesday 10. December 16:30: planning meeting for hardware/beam commissioning + Jean-Michel | |
| <input type="checkbox"/> | contact Andy B to coordinate FESA commissioning | Jose | | |
| <input type="checkbox"/> | start of shift operation 22. May/call out lists need to be defined | | | |
| Linac3 maintenance | | | | |
| <input type="checkbox"/> | Linac3 maintenance | Vince | restarted with RFQ and tank1 so far | |
| RFQD maintenance | | | | |
| <input type="checkbox"/> | for RFQD, we need one month before start-up, verify date | Frank | 10. Aug: start of AD, 31. Aug: start AD physics | |
| <input type="checkbox"/> | start RFQD maintenance, beginning of July (1 month duration) | Vince/Jose | | |
| REX upgrade | | | | |
| <input type="checkbox"/> | opening of RFQ | Han/Vince | measurements done, delayed because of CV works, could be shifted to beginning of 2014 | |
| <input type="checkbox"/> | amplifier tests | Han | complete test by March 2014, installation by June 2014 | |
| <input type="checkbox"/> | 1st week of December, visit to Bertronix to qualify new amplifier work, | Han | | |
| | no REX Isolde operation next year, | | | |
| | shipping of amplifiers to BERTRONIX? | | | |
| A.O.B. | | | | |
| <input type="checkbox"/> | order of new network analyzer | Han | | |
| <input type="checkbox"/> | commissioning of FESA class in Linac2 | | | |