

Minutes of the 92nd Machine-Time Committee Meeting

Date and time: October 20, 2015; 15:00–15:50

Place: RIBF Bldg., Room 203

Attendees: Sakai^a(Chair), En'yo^{a,†}, Fukunishi^a, Kubo^a, Morimoto^a, Okuno^a, Sakurai^a, Shimoura^b, Ueno^a, Uesaka^a, Yamaguchi^b, Imai^{d,†}, Motobayashi^{a,†}, K. Yoshida^{a,†}, Otsu^{a,†}, Tanaka^{a,†}, Kishimoto^{a,†}, A. Yoshida^{a,†}, Hirayama^a(in lieu of Miyatake), Suzuki^{a,†}, Yoneda^a

Absent: Abe^a, Kamigaito^a, Kase^a, Miyatake^c, Uwamino^a, Wakasugi^a, Haba^{a,†}, Morita^{a,†}

^aRNC / ^bCNS / ^cKEK / ^dRIBF-UEC / [†]Observer

(in random order)

Reports

1. Current Status of Machine Time Operation (Yoneda)

The current status of the machine time operation was reported. After the last MT committee meeting, experiments had been conducted in the low-energy facility until the power outage in October. Accelerator tuning started from October 12 for the SRC-BigRIPS experiments using the ²³⁸U beam. From this week, three experiments will be performed in parallel, i.e., SRC-BigRIPS, AVF-standalone and RILAC-standalone experiments.

2. Report on Accelerator Operation (Fukunishi)

A status report was made concerning the accelerator operation. Previously, the transmission efficiency through IRC was bad for the beam delivery from IRC to the old facility, but it was improved by using the RRC parameters for the RILAC injection mode. The RRC vacuum was also improved by using a seal adhesive, and as a result, the beam loss was decreased from ~20% to ~5%. The gas stripper is now operated with higher pressure (7000Pa, so far 6400Pa), thus reducing helium gas leakage. The maximum beam intensity achieved so far is 3900 enA.

3. Report on New Isotope Search Experiment (Suzuki)

A report was made concerning the new isotope search experiment using ⁷⁸Kr. One of the PAC-approved experiments with ⁷⁸Kr yielded four new isotopes, with a further possibility of new isotope production in a more proton-rich region. The experiment in that region was performed from June 16 through June 19 which did not yield any new isotopes. There are two possible reasons for this: production cross section was too small and the life time of proton emission to observe the isotope was too short. With the upper limit of the production cross section 71.1 ab, we were able to reach a sensitivity lower than 100ab for the first time. In the Ti-Rb region, the production cross sections are in reasonable agreement with the simulation based on EPAX, but are smaller than the calculation in the new isotope regions.

4. Report on Machine Study for Fare-Paid Experiments (A. Yoshida)

A report was made concerning the machine study for the fare-paid experiments conducted on September

30. A fare-paid experiment is scheduled in December, using a ^{40}Ar beam at E5A. Since only Kr beams have been used so far, a range control was tested before ^{40}Ar is used for the first time. It was confirmed in 2.5 hours of test runs that the MT can be performed without any problem..

5. Status of PAC Meetings (Yoneda)

- 16th NP-PAC: (12/3 - 5)

A call for proposals was issued on September 16, with the proposal submission deadline of October 22.

- 12th ML-PAC:

The schedule is still under consideration, which depends on the backlog of experiments using the low-energy facility and status of RAL experiments.

- 4th In-PAC: A PAC meeting will be held until the end of this year.

Topics discussed

1. Approval of Minutes of Previous Meeting (Sakai)

2. Yearly MT plan in FY2015-16 (Sakai)

The outline of the MT schedule plan for FY2015-16 was shown by ULIC, and opinions were exchanged. In case the 8-month operation is realized, the SRC-BigRIPS experiments must be performed in July, with the additional runs in September-October or in January-February also required. It was pointed out that due to high temperature in June and September, the stable accelerator operation is expected to be difficult. It was also pointed out that with the installation of OEDO planned in February 2017, there is a concern that the schedule may be interrupted.

3. Next Meetings

- The next meeting will be held at 3pm on Tuesday, November 17, 2015.
- The meeting after the next will be held at 3pm on Tuesday, December 15, 2015.
- The meeting in March next year will be held at 3pm on Wednesday, March 16, 2016.