

# Minutes of the 85th Machine-Time Committee Meeting

Date and time: February 25, 2015; 10:30–11:35

Place: RIBF Bldg., Room 203

Attendees: Sakai<sup>a</sup>(Chair), Abe<sup>a</sup>, Fukunishi<sup>a</sup>, Kamigaito<sup>a</sup>, Kase<sup>a</sup>, Kubo<sup>a</sup>, Miyatake<sup>c</sup>, Morimoto<sup>a</sup>, Okuno<sup>a</sup>, Sakurai<sup>a</sup>, Shimoura<sup>b</sup>, Ueno<sup>a</sup>, Uesaka<sup>a</sup>, Uwamino<sup>a</sup>, Yamaguchi<sup>b</sup>, Imai<sup>d,†</sup>, Motobayashi<sup>a,†</sup>, K. Yoshida<sup>a,†</sup>, Tanaka<sup>a,†</sup>, A. Yoshida<sup>a,†</sup>, Yoneda<sup>a</sup>,

Absent: En'yo<sup>a,†</sup>, Wakasugi<sup>a</sup>, Haba<sup>a,†</sup>, Morita<sup>a</sup>, Kishimoto<sup>a,†</sup>

<sup>a</sup>RNC / <sup>b</sup>CNS / <sup>c</sup>KEK / <sup>d</sup>RIBF-UEC / <sup>†</sup>Observer  
(in random order)

## Reports

### 1. Current Status of the Machine Time Operation (Yoneda)

The current status of the machine time operation was reported. Following the last machine time committee meeting, the University of Tokyo student experiment, RI production, commissioning of Wacame, radiation biology experiment, and experiment of Y. Kobayashi with AVF standalone, were carried out. The experiments with SRC/BigRIPS will start from late March.

### 2. Members of RIBF Machine Time Committee (Sakai)

A report was made concerning the members of the RIBF machine time committee for the next fiscal year. There were no changes made in the members. Professor Shimoura and Dr. Yamaguchi from CNS, and Professor Miyatake from KEK will be asked again to serve as the RIBF machine time committee members outside of the RIKEN Nishina Center. Dr. Otsu, Team Leader of the Nuclear Transmutation Data Research Group Fast RI Data Team, will be an observer.

### 3. Report on Machine Study (Fukunishi)

A report was made concerning the machine study of Wacame commissioning that was carried out on January 24 and 25. The performance of the newly placed beam line delivering beams from IRC back to E5 in the old part of RIBF was checked. This accelerator operation differs from the normal one. The harmonics of RRC and IRC are 5 and 4, respectively, to achieve acceleration up to 160 MeV/u (normal ones are 9 and 7 to achieve 127 MeV/u). The higher energy allows longer range in the irradiated sample, and longer region of constant LET. After tuning, it was confirmed that the beam line worked as designed. The first use of this beam line for the machine time will take place in October.

### 4. Status of PAC Meetings (Yoneda)

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

The meeting will be held for 3 days. Half of the PAC members will be replaced.

- 11th ML-PAC: (1/8 - 1/9):

7 proposals that will use the RIBF old facility were approved. The breakdown is as follows: 2 experiments of the AVF standalone (8 days), 2 experiments of the RILAC standalone (36 days), and 3

experiments of RRC (6 days). It is under consideration whether the next PAC will be held based on a mail review system. The next PAC will be held in July.

- 4th In-PAC: nothing has been finalized about the next PAC. A proposal of the same content as the one previously approved was reviewed via mail.

## **Topics discussed**

### **1. Approval of Minutes of Previous Meeting (Sakai)**

### **2. Application of Machine Study**

An application of machine study was reviewed. The application was approved, but it will be discussed later again when the machine study will be carried out, as the status of the machine time operation in the second half of this fiscal year is still unclear.

- Acceleration test of  $^4\text{He}$  with RILAC2+RRC for  $^{211}\text{At}$  production (Okuno)

An acceleration test of  $^4\text{He}$  with RILAC2+RRC will be carried out for the purpose of the  $^{211}\text{At}$  production. A test with RILAC+CSM for the same purpose was already approved, with an attempt to find out possibility of acceleration with another accelerator combination. The beam intensity is expected to be 100  $\mu\text{A}$ . Two days in total are requested: one day with harmonics 9, and one day with harmonics 11. It is desired to perform the test in autumn.

### **3. Machine Time Schedule of First Half of FY2015 (Sakai)**

The machine time schedule of the first half of FY2015 was discussed. The SRC/BigRIPS experiments will be performed from late March through the end of June, starting with the ImpACT experiment using  $^{238}\text{U}$ . The radiation biology experiments will be carried out during the period of RIKEN's Open Day and then  $^{238}\text{U}$  will be provided again. During this break period, the experimental setup at F8 will be switched to MINOS, to be ready for the SEASTAR experiment. The polarized deuteron experiment will follow, and during this experiment the experimental setup will be switched again for the following four experiments using  $^{78}\text{Kr}$ . After the commissioning experiment of Rare RI Ring is conducted with  $^{78}\text{Kr}$ , the rest will be tentatively assigned for the new isotope experiment with  $^{70}\text{Zn}$ . The decision is pending concerning this new isotope experiment, and will be made after the budget situation becomes clear in spring. This plan was approved after modifying the schedule of an AVF standalone experiment, which had been requested not to coincide with the final stage of the SRC accelerator tuning.

### **4. Next Meetings**

- The next meeting will be held on Wednesday, March 18, 2015, at 10:30.
- The schedule of the RIBF machine time committee meeting in the next fiscal year is as follows (basically on Tuesday, 15:00 -):  
April 28 (Tuesday) 15:00 - , May 26 (Tuesday) 15:00 - , June 16 (Tuesday) 15:00 - ,  
July 14 (Tuesday) 15:00 - , September 2 (Wednesday) 13:30 - , October 20 (Tuesday) 15:00 - ,

November 17 (Tuesday) 15:00 - , December 15 (Tuesday) 15:00 - , January 19 (Tuesday) 15:00 - ,  
February 23 (Tuesday) 15:00 - , March 15 (Tuesday) 15:00 –