March 30, 2007

Dear Dr. Toshio Kobayashi

The 1st Meeting of Program Advisory Committee for nuclear physics experiments at RI Beam Factory (NP-PAC) was held on February 9-10, 2007, where the committee reviewed proposals and made recommendation for beam-time allocation. As directors of the RIKEN Nishina Center for Accelerator-Based Science and Center for Nuclear Study, University of Tokyo, we have decided to follow the recommendation, which is attached below with general statements on the PAC meeting by the committee.

You will be contacted by us regarding the beam time allocation in due course.

Sincerely Yours,

Yasushige Yano
Director of RIKEN Nishina Center
for Accelerator-Based Science

Takaharu Otsuka
Director of Center for Nuclear Study,
The University of Tokyo

Comments from the NP-PAC

This was the first meeting for the NP-PAC and for the experimental program at RIBF. As a result, the available beam-time was rather limited for all accelerators. This was true for RIBF due to the need to reserve substantial time for machine calibration and testing, and for the other accelerators due to the competition and/or incompatibility to run simultaneously with RIBF.

On the other hand the PAC saw the need to have as many experimental programs at RIBF as possible get started in some exploratory fashion, after 6 years of facility construction. Since the quality of the proposals was quite high overall, this posed a substantial challenge to the Committee and in many cases led to small fractions of approved beamtime in comparison to what was requested. The hope is that with the advent of machine and experiment commissioning, more beam-time will be available in the future to make up for these initial constraints.

Specifically the PAC made the following recommendations concerning your proposal:

RIBF-017

Toshio Kobayashi

"Studies of exotic nuclei using (p.2p) proton knockout reactions and construction of a broad-range magnetic spectrometer"

Approved for 6days of the 12 days requested

The project is dedicated to studying of quasielastic (p,2p) scattering and consists of three parts: 1) Measurement of the momentum distributions of the inner-shell protons with the aim to get charge radii of 1s shell isotopes of He, Li, C (including ^{17,18}C); 2) Measurement of the momentum distribution of the valence proton in ^{17}Ne with the aim to look for the existence of a 2-proton halo; 3) Spectroscopy of the hole states in $^{23-25}$O.

The physics arguments in favor of all three proposals are quite reasonable, and one can expect to obtain new information. All three parts of the project are independent and can be studied in sequence. The proposed C-type magnet will certainly be useful for a range of experiments.