



General

The year 2006 was characterized by a transition of the legal framework of SPring-8 and a series of important reviews that determine the direction in which SPring-8 will proceed. Therefore, it should be noted that this report will inevitably contain some inaccuracies in describing the current status of SPring-8, since the consequent reformation was still in progress at the time of writing this report.

Legal Framework Transition

The Japan Atomic Energy Research Institute (JAERI) relinquished responsibility for the operation and management of SPring-8 in 2005. Since then, RIKEN and the Japan Synchrotron Radiation Research Institute (JASRI) have been operating and managing SPring-8 in a unified manner as the owner and operator/manager of the facility after being uniquely appointed in accordance with the “Law on the Promotion of Public Utilization of the Specific Synchrotron Radiation Facilities,” respectively. However, this law was amended from the viewpoint of securing fairness and transparency, limiting the affairs of JASRI to only selecting user proposals, utilizing the facility and providing support, thus excluding JASRI from operating SPring-8. This amendment was put into effect on July 1, 2006.

Under the amended law, JASRI has been positioned as one of the official candidates for selecting user proposals, facilitating the utilization, and supporting the users at SPring-8, and was appointed as the body in charge of these duties for the remaining period of FY2006 as a transitional measure. An examination will be conducted by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) to appoint the appropriate body/bodies for such duties in 2007 from the registered candidates.

In addition, in the framework of the amended law, it has become RIKEN's responsibility to select an appropriate body for operating the SPring-8 facility by bidding. In the bidding, to be conducted by RIKEN in 2007, JASRI will be one of the bidders, even though JASRI has been responsible for operating the facility since 1997, before the law was amended.

Under the amended law, the Advisory Committee that had deliberated on key issues related to the management, operation, and utilization of SPring-8 was dissolved at the end of March 2007, and a new committee, namely, the Proposal Selection Committee, whose duties are limited to deliberating only those issues related to proposal selection, was created in April 2007.

Reviews Conducted

In 2002, the Government of Japan established the Council for Science and Technology Policy in the Cabinet Office to steer science and technology in Japan. Although the management system for SPring-8 was considered to become more transparent owing to the transition from trilateral to bilateral management due to the JAERI's withdrawal, the council anticipated that complications and opaqueness in allocating the budget from RIKEN to JASRI, and in managing the facility would still remain, the transparency and efficiency of the new bilateral management system.

Hence, the council, advised JASRI to organize an international advisory council and respect their recommendations, upon which JASRI could improve the transparency and efficiency of the SPring-8 management system to ensure scientific and technological productivity at the facility for full-fledged exploitation. In order to immediately and appropriately respond to the advice given by the council, JASRI organized the JASRI International Advisory Council 2006 (JIAC), which held a meeting in Himeji at the beginning of July 2006.

In its report, JIAC stated that the SPring-8 facility should be operated and managed by RIKEN and JASRI in a unified manner as it was under the amended law, acting as an international leading-edge COE with respect to its excellent accomplishments thus far achieved.

Almost immediately after the JIAC meeting, MEXT launched an official committee for the interim assessment, and initiated an intensive review process for evaluating overall SPring-8 activities. There were five meetings held by the end of 2006, and one to be held by the end of March 2007. Following the recommendation submitted by the committee, it is expected that the Minister of MEXT will issue an amended policy as well as a guideline for the promotion of the public utilization of SPring-8 by the middle of 2007.

Selecting a few of the beamlines in the order of their completion times, JASRI has been systematically

conducting a series of reviews on the public beamlines since 2002. In 2006, JASRI reviewed BL13XU (Surface and Interface Structures), BL19B2 (Engineering Science Research), BL20XU (Medical and Imaging II), and BL37XU (Trace Element Analysis), which were the last four beamlines remaining unreviewed. Completing the review of the public beamlines, JASRI will follow the recommendations made by the review committee while maintaining and upgrading the beamlines in future.

In order to expand the number of users mainly focusing on industrial applications, JASRI has been conducting a trial use program since 2001 and has been running the Program for Strategic Use of Advanced Large Scale Facilities by MEXT since 2005. During 2006, there have been 4 proposals accepted for trial use, the experiments of which were carried out at BL19B2 (Engineering Science Research), BL13XU (Surface and Interface Structures), BL46XU (R&D), and BL47XU (HXPES, MCT). In the framework of the Program for Strategic Use of Advanced Large Scale Facilities, the number of the proposals accepted amounted to more than 100 during 2006. A review committee established by JASRI has outlined all the activities and accomplishment leading to the promotion of industrial applications and determined that the program has successfully vitalized this field of SR science and technology, making a significant contribution to the cultivation of new users from the industrial domain.

New Beamline for Industrial Applications

When it became clear that the number of proposals accepted for industrial applications was exceeding the capacity of BL19B2 (Engineering Science Research), JASRI decided to donate 150 million yen to RIKEN in early 2006, for construction of a new public beamline for industrial application (BL14B2 Engineering Science Research II). The construction was initiated in late 2006, and is expected to be finished by the middle of 2007, immediately followed by public use.

New Utilization Systems

With guidance from the Government, RIKEN amended the policy relating to the public utilization of SPRING-8 with respect to the social circumstances in 2005, and instituted a new policy in 2006, which involved (i) user fees, (ii) non-proprietary grant-aid proposal, and (iii) new beamtime fees for proprietary research.

User Fees

In accordance with the new policy that requires the users to share the expenditure costs, all public beamline users, including those users of contract beamlines for public use as well, have been required to pay an expenditure fee for materials such as coolants, buffer gases, and stock room reagents, parts, stationery, and so forth. The fee consists of a basic charge (10,300 yen/shift) and a variable charge determined on the basis of the expenses of the consumables actually used.

Non-Proprietary Grant-Aid Proposal

Also introduced under the new policy is a new program intended for research proposals that have been reviewed and approved for a large research grant. Under the program, the proposals are exempted from the scientific review process under the conditions that the program fee is paid and that the research results are made available to the public; only the safety and technical feasibility of the experiment, and the necessity of the use of SPRING-8 are considered. Under this new program, such users can conduct their experiment by paying the program fee of 131,000 yen/shift as well as the fixed and expenditure fees.

New Beamtime Fees for Proprietary Research

Under the new policy, the beamtime fees for proprietary research, which had been kept unchanged since the introduction of the system in 1999, have been revised. The revised fees are 480,000 yen/shift for public beamlines, 720,000 yen/shift including a 50% premium for public beamlines for time-designated proposals, and 312,000 yen/shift for contract beamlines.

SPRING-8 Website Renewal

The SPRING-8 website has been completely reorganized from the viewpoint of user-friendliness. The new website was developed in such a way that new comers can obtain sufficient information to adequately generate their own proposals. To meet this requisite, the new website contains an advanced database made up of a wide range of information on the user experiments thus far conducted. When visiting the new website, one can obtain such information by selecting relevant words from the database.