

Construction at J-PARC Now About 60% Complete

On August 8, the Japan Atomic Energy Research Institute (JAERI) and the High-Energy Accelerator Research Organization (KEK) invited the press for a look at Japan Proton Accelerator Research Complex (J-PARC, located in Tokai-mura), showing them how far its construction has progressed. With operation slated to begin in April 2008, approximately 60% of the construction is now completed. One year from now the first beam from the linear accelerator is slated.

Construction is progressing more or less on schedule for each component of the facility: the linear accelerator, the 3-GeV and 50-GeV synchrotrons, as well as separate laboratory facilities for materials and life sciences, atomic nuclides, and neutrinos.

The building housing the linear accelerator has already been finished, and the installation of its equipment is now underway. Devices have been installed in the first-floor klystron gallery. In June and July of this year, the drift-tube linear accelerator (DTL) and rapid-frequency quadrupole (RFQ) linear accelerator, among other equipment, were installed in the accelerator tunnel located two floors underground (at a depth of 15m). Both linear accelerators have already undergone extensive experimentation and adjustments in roughly the past two years at KEK in Tsukuba City. Starting this upcoming November, then, the separate DTL (SDTL) – which makes up the midstream and downstream portions of the linear accelerator – will be attached.



Also, the 3-GeV synchrotron building was recently completed, at the end of July 2005. All the 25 polarized magnets and 60 quadrupolar magnets to be used in the facility have been manufactured, and they will be installed sequentially.

Work on the 50-GeV synchrotron is also progressing as planned, including the construction of the tunnel and the facilities for the related building structure. As for the materials and life sciences laboratory, work has practically been completed on the steel

framework of the building. Meanwhile, construction is moving along of the beam switchyard in the atomic nuclide laboratory.

Furthermore, at the neutrino laboratory facilities, where construction began in fiscal 2004 (April 1, 2004, to March 31, 2005), the building of the decay volume is progressing as a midway stage between the first and second stages. Beams will be produced at the facility starting in April 2009. That date represents a year and a half delay behind the commencement of beam experiments at the materials and life sciences laboratory, and a year's delay behind the beginning of similar experiments at the atomic nuclides laboratory.

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