

C. The KEK Neutron Source and Neutron Scattering Research Facility (KENS),
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The pulsed-neutron source facility (KENS) is under construction at the National Laboratory for High-Energy Physics (KEK), Tsukuba, Japan. The facility consists of a pulsed-neutron source produced by spallation in a massive target (either W or U) irradiated by a 500-MeV proton beam from the KEK booster synchrotron and of an experimental area for neutron-scattering research. The KENS project was planned as an extension to the neutron-scattering research program using a pulsed-neutron source (PNS) at the Laboratory of Nuclear Science, Tohoku University; the KENS project is considered as an intermediate step toward the final Japanese Pulsed Neutron Source Project.¹ In 1974, a technical workshop was organized under the auspices of a Grant in Aid for Scientific Researches (GASR) from the Ministry of Education, where the possibility of constructing a pulsed-neutron source by using a surplus proton beam from the 500-MeV booster synchrotron at KEK was discussed. The results were published in a technical report.² The proposal of the KENS project was then presented to the KEK Advisory Council for Scientific Policy and Management in May 1975, where the KENS was finally authorized as a KEK facility. The budget for construction of the facility was approved by the Government in February 1977. The facility is scheduled for completion in March 1980.

The KENS facility is now organized as one section of the KEK Booster Synchrotron Utilization Facility which has been in existence since April 1978. This latter facility includes, besides KENS, two other experimental facilities: a) the meson physics research facility, and b) the utilization of high-energy proton and neutron beams for medical and biological purposes. The layout of the KEK is displayed in Fig. I-C.1 and the details were reported separately.³ Actual construction of the KENS facility is promoted by the construction workshop members organized under the auspices of the GASR.

An interim technical report describing the present status has been published.⁴

References

1. Technical report of the workshop (GASR) on "Repetitive Pulsed Neutron Source Project in Japan," March 1971.
2. Technical report of the workshop (GASR) on the KENS Project, March 1975.
3. H. Sasaki: A report presented at the 2nd ICANS Workshop, Rutherford Laboratory, July 10-15, 1978.
4. Technical report of the workshop (GASR) on "Construction of KENS Facility, July 1978.

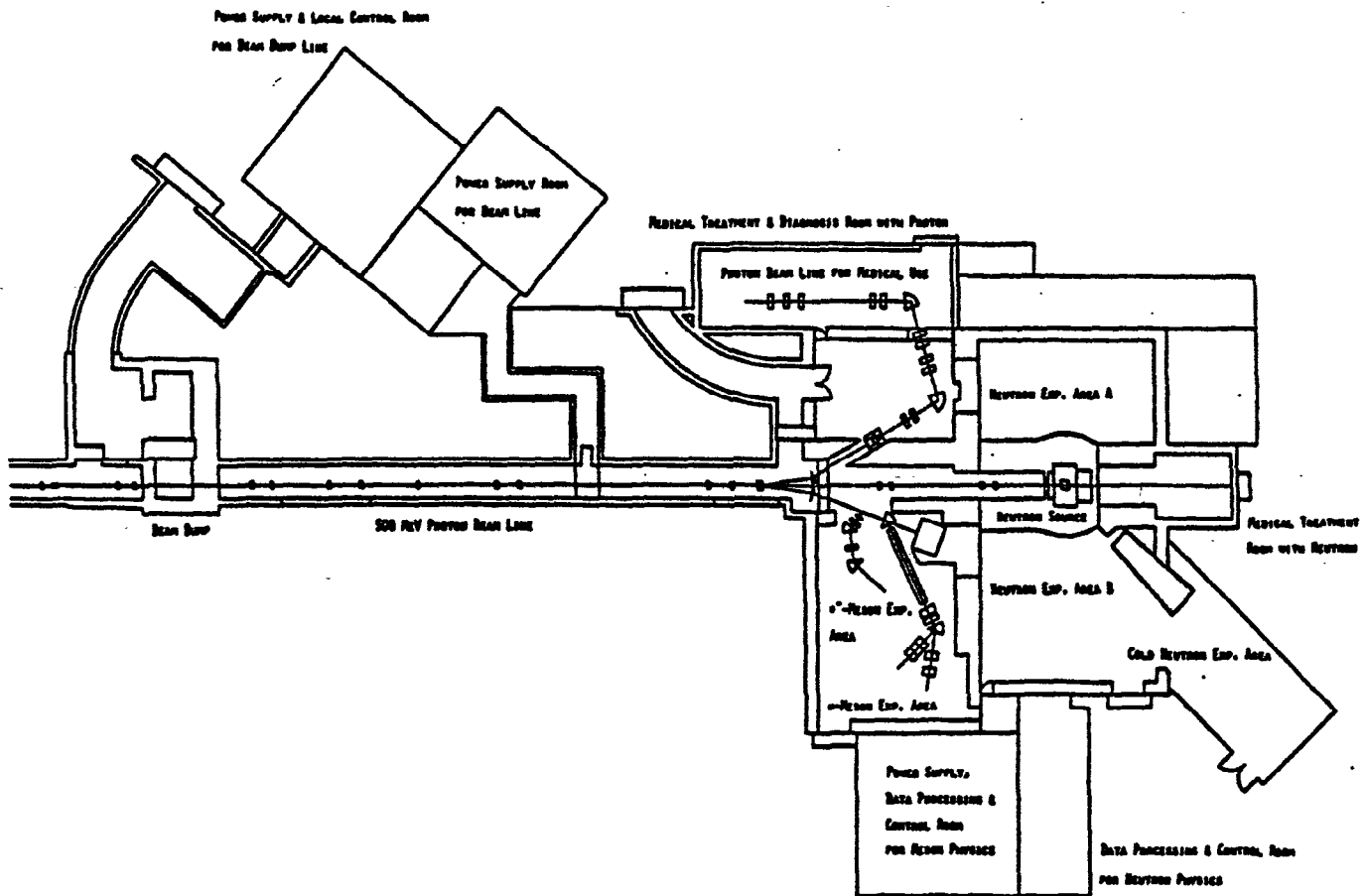


Fig. I-C.1. Layout of the KEK experimental facilities.