INTRODUCTION OF RADIATION MONITOR SYSTEM FOR THE SHANGHAI SYNCHROTRON RADIATION FACILITY

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Abstract

Shanghai Synchrotron Radiation Facility (SSRF) is the first third-generation synchrotron radiation facility in China and it will be completed and put into use in April 2009. Radiation Monitoring System in SSRF is an important part of radiation safety system. This paper describes the Radiation Monitoring System in real time and its performance during beam commissioning. This system consists of sets of neutron and gamma monitors and data acquisition and computer system mounted in central control room. The types and features of the monitors and the functions of the computer system based on EPICS, SAD, PYTHON and MYSQL are given in detail. The performance of the system during the commissioning showed that the system performs as design expected, and can successfully prevent people from being exposed to abnormal radiation level.

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