

Operational Experience with the Spallation Neutron Source High Power Protection Module

The Spallation Neutron Source (SNS) High Power Protection Module provides protection for the High Power RF Klystron and Distribution System and interfaces with the Low-Level Radio-Frequency (LLRF) Field Control Module (FCM). The fault detection logic is implemented in a single FPGA allowing modifications and upgrades to the logic as we gain operational experience with the RF LINAC systems. This paper describes the integration and upgrade issues we have encountered during the initial operations of the SNS systems.