AugerPrime
Scintillator Surface Detector
OPERATIONS READINESS REVIEW
Charges to the Review Committee

Review to be started on:
April 15th 2024

(version: 20240403)

Review Committee Members
Carla Bonifazi (chair)
Fabian Gobbi
Ioana Maris
Giovanni Marsella

Objective:
The Auger Project Management Plan defines the objective of the Operations Readiness Review as:
A subsystem only becomes part of the operation of the Observatory when it has passed an Operations Readiness Review. This review ensures that the subsystem is in effective, stable operation, all documentation has been filed, spares are available and the staff has been trained.

The purpose of the review is to determine if the SSD subsystem is ready to be included in the operation of the observatory for science production. Additionally, the review committee should asses if all the necessary material needed for operation and maintenance are existing and available.

Detailed scope of the Review:

- Scintillator Surface Detector module and associated mechanics (corrugated roof, support and tank attachment);
- PMT and Iseg base, all electrical connections (power, signal and grounding) and cable protections;

The review should assess, but not be limited to, the following issues:

Equipment availability and readiness

- Are components and software fully commissioned, operating reliably, and meeting performance requirements?
- Are all the hardware, power and software interfaces fully functional, compatible and operational?
- Are special tools and testing equipment required for routine maintenance present and available to the Observatory staff?
- Are the most common failure modes identified and understood? Is there a mitigation plan?
- Are spares available on site as required? Have reliable sources for all spare parts, tools, and consumables been identified for future procurements? Is there a long-term plan for component repairs or replacement?

Technical Documentation

- Are drawings, schematics, and any other relevant documents complete and posted to CERN EDMS and/or PMS?
- Are instructions for operating and maintaining software code, as well as the code itself, available and organized?
- Is a complete list of equipment and components including part numbers and vendor contact information available?

Procedures. The following procedures must be complete:

- General operation.
- Hardware and software troubleshooting and maintenance.
- Process for handling major repairs.
- Inclusion of safety considerations in all procedures.

Training.

- Has an appropriate number of observatory personnel been trained to operate and provide routine maintenance?

Operations resources.

- Evaluate the annual requirement of resources (person-power & costs) for routine operation and maintenance for each subsystem, including materials, equipment. Discuss anticipated rates of failures and frequency of repairs and replacements.