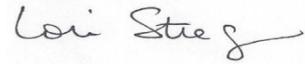


Cell 22 Utilities Evaluation Submitted: L. Stiegler



From the Cell 22 IRP: Requirements for utilities

Electrical Power SBMS electrical power distribution requirements are satisfied. SBMS Electrical Equipment Inspection (EEI) requirements are satisfied.
Utilities Permanent utility systems are installed and tested (i.e., Compressed Air, DI Water, Gaseous Nitrogen, Process Chilled Water) in accordance with design drawings.
Component Mechanical Assembly Components are assembled with adequate structural integrity.

Cell 22 Diagnostic Line Inspection

On March 7, 2017 and March 28, 2017 a review team inspected components that have been installed in the Cell 22 area for diagnostic instrumentation and detector development. The review team consisted of J. Escallier (electrical), M. Cubillo and M. Gaffney (mechanical) and J. Zipper (QA). W. Rambo, B. Kosciuk, P. Siddons and T. Kuczewski accompanied the inspection.

- There is no compressed air or gas for this equipment.
- The water systems are labeled, and adequately secured.
- The diagnostic instrumentation is on a fixed stand, with a pinhole camera.
- The beam pipe is under low vacuum with a vacuum pump.
- There is a water cooled diamond window separating the beam pipe from ring vacuum. The window has been evaluated by SHSD.
- There are beryllium windows on both ends of the beam pipe for the detector development station.
- The groups will alternate usage of the beam pipe.
- The detector group has a breadboard table that has 6 motors and can be adjusted remotely, using delta tau controllers (low voltage).
- The breadboard table is supported on pads and jacks.
- The breadboard table is grounded.
- 110V electrical outlets have been supplied on the downstream wall for any detectors that will be used (none are currently installed).

The review team had one recommendation:

1. The detectors will require 110V power. Any installed power cords from the outlet to the detector table need to be protected from damage (cable cover).