SLAC MEMORANDUM RP-RPD-20180606-MEM-01

DATE: June 6, 2018

TO: C. Kenney

FROM: Ryan Ford Ryan M. Ford

SUBJECT: **NASA Goddard RGD Run Configuration**

The purpose of this memorandum is to provide you with RSO approval for a requested run configuration of the NASA Goddard X-Ray Sources. The maximum power of the sources is the hard x-ray source having a beam of 15 kV and 0.1 mA (1.5 W). The hazard analysis showed a maximum unshielded dose rate of 60 mrem/hour at 10 cm.

You have requested to run the devices within their shielded cabinet in B/84, room 295A cleanroom that is normally used for the 50W X-Ray gun (50 kV, 1 mA max), but without the cabinet interlocks (door interlocks, beacon). The reason is that these devices are at SLAC on a temporary basis, for two days of testing with the device vendor. If the device is purchased by SLAC, the interlocks would be configured at a later date.

The RGDAS has been revised to delete the requirements for the interlock bench test procedure and interlocks test. New requirements were added for a pre-run inspection by the RGD program manager, a requirement to lock the cabinet doors during running, and a daily startup inspection and survey by RPFO. The requirement to use a survey meter when opening the cabinet was retained. The control of the key and survey meter shall be maintained by a dedicated individual during use.

Approval:

CJ Lui for Sayed 6-6-2018

Radiation Safety Officer Date

References:

1. Technical manual. SLAC National Accelerator Laboratory, Compact X-ray Sources for Detector Development Source Specifications. February 2, 2018. P. Welander.
2. Liang, T. RP-18-13, "Radiation Hazard Analysis for the NASA Goddard X-Ray Sources. May, 2018.

CC:

RP: S. Rokni, J. Liu, H. Brogonia, J. Allan, M. Torres, T. Liang