



managed by Brookhaven Science Associates
for the U.S. Department of Energy

Memo

date: Apr. 23, 2009

to: N. Gmür

from: C. Weilandics 

subject: Bldg. 832/PETRA-7cell RF cavity RF Survey # **LT-BR-RF-CAV-2**

At the request of NSLS-II ESH Management, on April 23, 2009, a RF survey of a NSLS-II (PETRA-7) Booster 500 MHz RF cavity was conducted in Bldg. 832. The cavity was surveyed for RF leakage during testing during which measurements were made at input power levels of 10, 25, 50, 75 and 90 watts.

For these measurements, electric (E) field surveys were conducted using a calibrated (Mar. 5, 2009) Narda 8718B Electromagnetic Radiation Survey meter. The E field probe (model B8722D, SN: 02207, cal. Feb., 26, 2009) used is capable of measuring RF over the frequency ranges of 300 kHz to 50 GHz. The meter can be set to read out in a variety of units, however, for the purpose of this survey it was set to read out in percent of standard. During the survey of the equipment, measurements were taken around the RF cavity, specifically at the flange and connection joints. Also surveyed were the accessible portions of the cables and their connections.

Results

For this set of measurements, we found no appreciable (< 1% of the standard) RF from the equipment measured. The standard for exposure to non-ionizing radiation which BNL has referenced is the IEEE C95.1-1999 standard also referenced by ACGIH. The general Threshold Limit Values for RF and microwaves are not expected to change.

IH99SR.09

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