

RF Radiation Compliance Measurements

WRVV Harrisburg, PA

Facility ID# 15324

These measurements were made to comply with Special Condition 2 of Construction Permit BXPB-20190402AAG.

Facilities:

WRVV is authorized by Construction Permit BXPB-20190402AAG for an auxiliary antenna with an ERP of 16.0KW (H & V) and utilizes a four bay ERI model SHPX-4E-HW half wave antenna. The antenna is side mounted on a 15.2 meter self-supported pole structure with its center of radiation located at 12 meters above ground level. Access to the support structure is restricted by a perimeter fence that surrounds the compound with locked gates and is restricted from the general public.

Measurements:

On June 18, 2019 while operating into the antenna at authorized power, measurements were made in all publicly accessible areas at the site. After initial measurements were made, it was found that power needed to be reduced to an ERP of 5.3KW to reduce the exposure limit to below the general population limit and to provide a margin of safety.

Measurements were then made in accordance with guidelines provided in OET Bulletin 65 Edition 97-01 with regard to General Population / Uncontrolled Exposure and Occupational / Controlled Exposure limits. A NARDA 8718B EM Survey meter utilizing an B8742D Shaped E Field Probe was used to make the measurements. The B8742D is a shaped probe providing a reading of the electric field component in percentage of the plane wave equivalent power density corresponding to the 1997 FCC General Population / Uncontrolled Standard. Measurements were made using the "Max Hold" function of the NARDA 8718B meter while slowly walking a survey grid around the site sweeping the meter probe up and down in an oscillatory fashion covering as much volume of space as practical. In areas where the indicated RF exposure levels approached or exceeded 100%, spatially averaged measurements were made utilizing the spatial averaging functionality built into the NARDA 8718B.

General Population / Uncontrolled Exposure:

In none of the publicly accessible areas outside the fence did the RF exposure levels exceed the 1997 FCC General Population / Uncontrolled Exposure limit. The maximum electric field observed was 6' south of the access road approximately 10M from the support structure and is 79% of the General Population limit. All other areas at the site are below this level.

Occupational / Controlled Exposure:

In none of the areas within the fence or building did the RF exposure levels exceed the 1997 FCC General Population limit. The maximum electric field observed was at the base of the support structure and is 24% of the General Population limit which is less than 5% of the Occupational limit.

The licensee along with other users of the site will reduce power or cease operating as necessary to protect workers accessing any of the towers or support structures at the site from RF exposure in excess of FCC guidelines.