

Engineering Exhibit – STA Operation
W275AT Four Corners, NJ
Facility ID No. 138571

This exhibit is to support an STA request for Fill-In Translator W275AT with modified facilities so that it can resume operation. On October 30 2012, the guyed tower that supported the antenna was destroyed by Hurricane Sandy and has been silent since that time. Subsequent to that date, the licensee filed for and was granted a construction permit for new facilities, file number BPFT-20130109AEY. However, the new facilities have not yet been constructed. It is therefore requested to return to the air with modified facilities at the presently licensed site.

Below as Figure 1 is a contour map showing the F(50,50) contours of the primary station WSUS along with the W275AT licensed and STA contours. As can be seen the STA 60dbu contour does not exceed the presently authorized translator 60dBu contour or the Primary station's 60dbu contour.

RF Radiation Compliance

The transmit antenna is located 10 meters above ground on a single story building roof and is a horizontally polarized Scala CL-FM with an ERP of 43W. The proposed facilities were evaluated in terms of potential radio frequency radiation exposure at ground level in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation."

The antenna has been evaluated using "FM Model", as a worst case "Ring Stub" single bay being mounted with its center of radiation 10 meters above ground level, with an effective radiated power of 43 watts in the Horizontal plane.

At 2 meters above the surface, at 4 meters from the closest point of approach, this proposal will contribute worst case, 6.14 microwatts per square centimeter, or 0.614% of the allowable ANSI limit for controlled exposure, and 3.07% of the allowable limit for uncontrolled exposure.

The building roof is restricted from public access. The applicant will reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to access the roof for maintenance or inspection.

Figure 1. Contour Map

