

Engineering Exhibit
WDCG
Facility ID 53597

This application is one of a total of 3 applications seeking a “shared time” auxiliary facility for co-owned stations WDCG, WKSL, and WRVA-FM (3-stations) . This facility will feed into an open port on the licensed ERI model 1183 HD antenna of station WRDU. As only one of the 3-stations will be feeding power into this antenna at a time, intermodulation can only occur between that station and WRDU. Likewise the sum of RF energy to be accounted for is the sum of WRDU and that particular station auxiliary.

The antenna is an ERI 1183-3CP- 2, configured in 3 bays and full wave spaced, mounted 457 meters above ground on the tower identified in Structure Registration Number 1027322.

For the purpose of this exhibit a “worse case” radiator of the type “ring stub” was used in the microcomputer program “FM Model” to calculate RF levels. The proposed facilities were evaluated in terms of potential radio frequency exposure in accordance with OET Bulletin No. 65 “Evaluating Compliance with FCC Specified Guidelines for Human Exposure to Radio Frequency Radiation”.

Mounted with its center of radiation 457 meters above ground level, and operating with a combined effective radiated power of 29.2 Kilowatts (1.7 kW this application plus WRDU at 27.5 kW) in both the horizontal and vertical planes. At 2 meters above ground, at 95 meters from the base of the tower, this will contribute worst case, 5.6 microwatts per square centimeter, or 0.56 percent of the allowable ANSI limit for controlled exposure, and 2.8 percent of the allowable limit for uncontrolled exposure. This figure is less than 5% of the applicable FCC exposure limit at all locations extending out from the base of the tower. Section 1.1307(b)(3) excludes applications when the calculated level is predicted to be less than 5% of the applicable exposure limit. It is therefore believed that this proposal is in compliance with OET Bulletin Number 65 as required by the Federal Communications Commission.

Further, the applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The site itself is restricted from public access. The applicant will cooperate with other users of the tower to 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 climb the tower for maintenance or inspection.

