

Engineering Exhibit
WRDU (FM)
Facility ID 73936
Minor Change Application
August 9, 2006

By this application it is sought to modify the facility of WRDU (FM) to specify a new antenna height, location, power, and one step change in class. This application is also responsive to "Report and Order RM-11197, MB Docket No. 05-121" for change in community from Wilson to Knightdale North Carolina.

The proposed WRDU (FM) antenna is to be non-directional and will be located 325 meters above ground level upon a tower identified by antenna structure registration number (ASRN) 1001740. This tower also supports the antenna of station WCPE Raleigh, NC.

From this location WRDU (FM) is fully spaced as a Class C1 facility in accordance with Section 73.207 to all known facilities, applications and allocations, The proposed facility is at a Height Above Average Terrain (HAAT) of 330 meters, this is 31 meters greater than maximum for Class C1, the web tool "FMpower" was utilized to determine the equivalent power of 80 kW

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 proposed antenna system is a Dielectric DCRM, 6- bay, 1.0 wave spaced antenna, mounted with its center of radiation 325 meters above ground level. This proposal will operate with an effective radiated power of 80 kilowatts in both the horizontal and vertical planes. At 2 meters above ground, at 110 meters from the base of the tower, this proposal will contribute worst case 4.26 microwatts per square centimeter, or 0.426 percent of the allowable ANSI limit for controlled exposure, and 2.13 percent of the allowable limit for uncontrolled exposure. It is 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 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.