

Comprehensive Engineering Exhibit
WTFX-FM Facility ID 37753
Minor Change Application
October 16, 2007

By this application it is sought to modify the facility of WTFX(FM) to specify a new antenna height and power at its existing location.

The proposed WTFX(FM) antenna is to be non-directional and will be located 34 meters above ground level upon a tower 42.9 meters tall, which does not require registration. From this location WTFX(FM) is fully spaced as a Class A facility in accordance with Section 73.207 to all known facilities, applications and allocations with the exception of co-channel station WNOU, Indianapolis. Processing in accordance with section 73.215 to WNOU is requested. Prohibited contour overlap will be prevented by a reduced operating power for WTFX. The proposed facility is at a Height Above Average Terrain (HAAT) 14 meters greater than maximum for Class A, the web tool "FMpower" was utilized to determine the equivalent class A power of 4.6 kW, this proposal is to operate WTFX-FM with 4.1 kW to protect WNOU. Attached is a map demonstrating no prohibited contour overlap.

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 an EPA type 3, 2- bay, 1.0 wave spaced "Roto Tiller" style antenna, mounted with its center of radiation 34 meters above ground level. This proposal will operate with an effective radiated power of 4.1 kilowatts in both the horizontal and vertical planes. Station WFIA is co-located upon the same tower as this proposal, and operates with 3.3 kW using a ½ wave spaced antenna, located 6 meters above WTFX.

For simplicity of analysis it has been assumed that both stations are operating from the antenna located closest to ground level. Thus the following was calculated using the micro-computer program Fm_Model, assuming 7.4 kW from a full wave spaced rototiller antenna 34 meters above ground. A worst case 69.2 microwatts per square centimeter, or 6.9 percent of the allowable ANSI limit for controlled exposure, and 34.5 percent of the allowable limit for uncontrolled exposure was calculated. While it is believed that this proposal is in compliance with OET Bulletin Number 65 as required by the Federal Communications.

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.

73.215 Contours

