

TECHNICAL SUMMARY
SECOND FILING WINDOW
APPLICATION FOR MODIFICATION OF CONSTRUCTION PERMIT
CLASS A STATION WDNI-CD
INDIANAPOLIS, INDIANA
CHANNEL 16 15 KW (DA)

1. The instant application is a second filing window application for WDNI-CD on channel 16 at Indianapolis, Indiana. It is proposed to increase the ERP from 13.9 kW to 15 kW and to change the directional antenna system. There will be no other changes. There will also be no change in the overall structure height (ASRN 1027512).

2. As demonstrated in the attached *TVStudy* analysis exhibit, the proposal complies with the FCC's interference requirements based on a cell size of 1.0 km and a profile resolution of 1.0 points/km.

3. RFR Compliance: The proposed facilities were evaluated in terms of potential radiofrequency radiation (RFR) exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna will be located 137 meters above ground level. The total DTV ERP is 18.75 kW (15 kW horizontal polarization, 3.75 kW vertical polarization). A conservative vertical plane relative field value of 0.2 is presumed for the antenna's downward radiation (for angles towards the base of the tower, see attached antenna data). The calculated power density at a point 2 meters above ground level is 1.4 $\mu\text{W}/\text{cm}^2$ which is 0.43% of the FCC's recommended limit of 323.3 $\mu\text{W}/\text{cm}^2$ for channel 16 for an uncontrolled environment. Therefore, based on the responsibility threshold of 5%, the proposal will comply with the RF emission rules.

Access to the transmitting site is restricted and appropriately marked with RFR warning signs. Furthermore, as this is a multi-user site, a formal RFR protection protocol is in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measure will be taken to assure worker safety with respect to RFR exposure. Such measures include limiting the exposure time, wearing protective clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.