

TECHNICAL SUMMARY
APPLICATION FOR CONSTRUCTION PERMIT
CLASS A STATION W33BY-D
DETROIT, MICHIGAN
CHANNEL 15 2.66 KW (DA)

1. The instant application is the initial 90 day ‘checklist’ application for the reassigned facilities of W33BY-D, Detroit, Michigan (Ch. 15). It is proposed to operate with facilities that are identical to the facilities listed for W33BY-D in the FCC’s *Closing and Reassignment Public Notice* (CRP). Specifically, it is proposed to utilize W33BY-D’s current ATC model ATC-BPH8C2 directional antenna and there will be no change in the main lobe orientation of 325 degrees. Furthermore, it is proposed to operate with the assigned ERP of 2.66 kW and there will be no change in the antenna radiation center height (253.3 m AMSL). There will also be no change in the overall structure height.

2. As the proposed facilities are identical to the facilities listed for W33BY-D in the CRP, there will be no extension of the predicted service area relative to the baseline reassignment facility listed in the CRP. Also, the proposed facility is compliant with the 95% population service requirement. See attached FCC *TVStudy* analysis exhibit.

3. As also demonstrated in the *TVStudy* analysis exhibit, the proposal complies with the FCC’s interference requirements based on the FCC’s *TVStudy* program. A cell size of 2.0 km and a profile resolution of 1.0 points/km were utilized for the *TVStudy* analysis.

4. 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 58.8 meters above ground level. The total DTV ERP is 2.66 kW (horizontal polarization). A conservative vertical plane relative field value of 0.215 is presumed for the antenna’s downward radiation (for angles below 60 degrees downward, see attached antenna data). The calculated power density at a point 2 meters above ground level is 1.3 uW/cm^2 which is 0.4% of the FCC’s recommended limit of 319.3 uW/cm^2 for channel 15 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 will be restricted and appropriately marked with RFR warning signs. Also, as this is a multi-user site, a formal RFR protection protocol will be 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.