Consulting Engineers

TECHNICAL SUMMARY APPLICATION FOR MODIFCATION OF CONSTRUCTION PERMIT LMS FILE NO. 0000026543 CLASS A STATION WOHZ-CD MANSFIELD, OHIO CHANNEL 20 8.0 KW (DA)

1. This instant application proposes to modify the WOHZ-CD construction permit (CP, LMS File No. 0000026543) for operation on channel 20 at Mansfield, Ohio. Specifically, the purpose is to change the directional antenna (DA) from an SWR model SWEDL16WCS/20 horizontally polarized DA to an ERI model ALP16L2-HSW-20 horizontally polarized DA and to decrease the ERP from 9.2 kW to 8.0 kW in order to comply with the current freeze on contour extensions. There will be no other changes including no change in the overall structure height of the existing tower that will be utilized for the proposed operation (ASRN 1013230).

2. Freeze Compliance: Figure 1 shows the protected 49.4 dBu, f(50,90) contours for the WOHZ-CD CP and proposed operations. As indicated, the proposed 49.4 dBu contour is entirely within the CP 49.4 dBu contour. Therefore, the proposal is believed to be in compliance with the FCC's 4/05/2013 Freeze Order Public Notice (DA 13-618).

3. As demonstrated in the attached *TVStudy* analysis exhibit, the proposal complies with the FCC's interference protection requirements based a post-transition allocation environment. A cell size of 2.0 km and a profile resolution of 1 km 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 112 meters above ground level. The total DTV ERP is 8 kW (horizontal polarization). A greater than expected vertical plane relative field value of 0.25 is presumed for the antenna's downward radiation (-60° to -90° elevation, see attached antenna information). The calculated power density at a point 2 meters above ground level is 1.4 uW/cm² which is 0.41% of the FCC's recommended limit of 339.3 uW/cm² for channel 20 for an uncontrolled environment. Thus, as this is less than the 5% threshold value, it is believed that the WOHZ-CD facility is in full compliance with the FCC's requirements with regard to radio frequency radiation exposure.

Access to the transmitting site will be restricted and appropriately markets 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.