TECHNICAL SUMMARY
APPLICATION FOR CONSTRUCTION PERMIT
TV STATION WEPH
TUPELO, MISSISSIPPI
CHANNEL 17 517 KW (MAX-DA) 453 m

1. The instant application is the initial 90 day application for the reassigned facilities of WEPH, Tupelo, Mississippi (Ch. 17). It is proposed to replace the existing side-mounted directional antenna with a new side-mounted directional antenna and operate with a maximum ERP of 517 kW. There will be no change in the antenna radiation center height (556.2 meters AMSL). There will also be no change in the overall structure height of the existing tower (ASRN 1040183).

2. Due to slight differences in the licensed and proposed directional antenna pattersn, there will be some extension of the predicted service area relative to the baseline reassignment facility listed in the FCC's *Closing and Reassignment Public Notice*. However, the extension will not exceed 1% in any direction. The proposed facility is also compliant with the 95% population service requirement. See attached FCC *TVStudy* analysis exhibit. Also, the proposal complies with the city coverage requirements as demonstrated in the Predicted Coverage Contours exhibit.

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

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 379.5 meters above ground level. The total DTV ERP is 517 kW (horizontal polarization only). A conservative vertical plane relative field value of 0.2 is presumed for the antenna's downward radiation in both the horizontal and vertical planes of polarization (for angles below 60 degrees downward, see attached antenna vertical plane relative field pattern). The calculated power density at a point 2 meters above ground level is 4.85 uW/cm^2 which is 1.5% of the FCC's recommended limit of 327.3 uW/cm^2 for channel 17 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 markets with RFR warning signs. Also, 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.