

W30EG-D, Knoxville, TN
Facility ID# 167727
26 May, 2020

Environmental Statement

The proposed construction is not a major environmental action as defined by 47CFR 1.1306 and 1.1307. No new ground construction or lighting changes are involved and no structure heights or widths are being increased.

RF exposure summary:

This tower site is restricted from public access by a fence around the entire property with a motorized steel road gate to block vehicular ingress. The gate and the tower are posted with registration and RF caution signs. The proposed construction is on an existing registered broadcast tower.

The proposed W30EG-D facility on channel 30 antenna center is at 74 meters AGL, the same as the current channel 45 facility. The proposed horizontal ERP of 15.0 kW with 30% vertical totals 19.5 kW. Using the general exposure formula $S = (.256)(1.64)(100)(F2) (ERP)/4\pi R^2$, with a worst case antenna factor of 1.0 yields a power density at ground level of 29.5 $\mu\text{watts}/\text{cm}^2$, far below even 5% of the occupational limit for channel 30 of 1897 $\mu\text{watts}/\text{cm}^2$ and the public exposure limit of 379 $\mu\text{watts}/\text{cm}^2$. Thus the proposed construction would contribute an insignificant amount of RF energy at the level of a person standing on the ground. The existing W45DF signal on channel 45 will be removed in this process so the above is a negligible change over existing levels.

An information sign at the site lists contact information a crew can use to have W30EG-D emissions reduced or terminated to protect tower crews working in the vicinity of the antenna.

These facts clearly demonstrate that this proposal does not present any significant environmental action or hazard as defined in the FCC Rules and Regulations Part 1 and outlined in OET bulletin 65 & 65a.