

NONIONIZING RADIATION COMPLIANCE
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Marquee Broadcasting Georgia, Inc.
Albany, GA

The proposed modified WSST-LD facilities will fully comply with the current FCC standard with regard to human exposure to nonionizing radiation. The proposed WSST-LD antenna will be a horizontally polarized Dielectric DLP-12B nondirectional antenna which will operate with a horizontally polarized effective radiated power of 15.0 kilowatts . This antenna will be mounted with its center of radiation located 93.9 meters above ground on an existing 128 meter tower. Equation (2), found on Page 30 of Supplement A to OET Bulletin 65, details the calculation technique used to determine the power density at the base of a TV broadcast tower. In this case, however, it is necessary to substitute the total proposed average DTV effective radiated power (15.0 kilowatts) for the expression $[0.4ERP_v + ERP_A]$ in this equation to compensate for the fact that DTV power levels are expressed in terms of average power, rather than peak power, as is the case for the visual portion of an analog TV signal. Assuming, as a worst case, 100% downward radiation and substituting these values into this equation yields a predicted maximum power density at two meters above ground level of 59.3 $\mu\text{W}/\text{cm}^2$. Since the maximum permitted power density for uncontrolled exposure on TV Channel 28 is 369.3 $\mu\text{W}/\text{cm}^2$, this amounts to 16.1% of the permitted level for uncontrolled exposure.

Assuming 100% downward radiation, the licensed facilities for WSST-TV are predicted to generate a power density of 41.8% of the limit for uncontrolled exposure at two meters above ground level. Because there are no other nonexcluded sources located in the vicinity and the total of these two stations is only 57.9% of the permitted level for

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uncontrolled exposure, the proposed addition of WSST-LD to this site will fully comply with the FCC standard regarding human exposure to nonionizing radiation.

WSST-LD will also take appropriate steps to insure that workers who must climb this tower will not be exposed to power densities exceeding the permitted levels for controlled exposure. This will include a reduction in power or the cessation of operation, as appropriate, at any time that workers must be on this tower in any area where the total power density exceeds the permitted level for controlled exposure.

Because the modifications proposed in the attached application will fully comply with the FCC standard regarding human exposure to nonionizing radiation and don't involve any tower modifications which would qualify as a major environmental action, it isn't necessary to undertake any further environmental studies or submit an environmental assessment for these proposed facilities.