

Engineering Statement  
**CBS Television Licenses LLC**  
WSBK-TV(Aux) Boston, Massachusetts  
Facility ID 73982  
Ch. 21 163 kW 349.7 m

*CBS Television Licenses LLC (CBS)* has completed construction of its WSBK-TV auxiliary antenna transmission facilities. This statement addresses a slight increase in vertical polarization effective radiated power (ERP) from that shown on the underlying Application for Construction Permit.<sup>1</sup> The antenna is operating with a horizontally-polarized ERP of 163 kW and a vertically polarized ERP of 48.9 kW. Due to this increase, slight changes in RF exposure calculation results are provided below.

The proposed facility uses an existing tower<sup>2</sup> with no change in overall height, marking specifications, or lighting specifications. Consequently, this application is categorically excluded from environmental processing.

The proposed operation was evaluated for human exposure to radiofrequency energy using equation ten (10) from the Commission's OET Bulletin No. 65 using a typical UHF antenna elevation pattern field value of 10 percent or less toward angles 45 degrees or more below the horizon.<sup>3</sup> This study shows that the proposed facility would contribute a power density of 0.6  $\mu\text{W}/\text{cm}^2$  at two meters above ground level near antenna support structure, or 0.2 percent of the FCC's 343.3  $\mu\text{W}/\text{cm}^2$  "uncontrolled/general population" exposure limit for UHF Channel 21 (515 MHz). RF power density is expected to be even lower at ground level locations away from the base of the tower, due to the increasing distance from the transmitting antenna.

According to §1.1307(b)(3), facilities at locations with multiple emitters are categorically excluded from responsibility for taking corrective action in areas where their contribution is less than five percent of the limit. Since the calculated exposure is less than five percent at all ground level areas, the impact of other possible contributors should not be a factor.

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<sup>1</sup> See FCC file number 0000083917.

<sup>2</sup> See Antenna Structure Registration 1004233.

<sup>3</sup> See page 31, FCC OET Bulletin 65 Supplement A, August 1997.

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Tower access will continue to be controlled and appropriate RF exposure warning signs will continue to be posted. A site exposure policy is in effect that includes restriction of access, power reduction, or the complete shutdown of facilities when work must be performed where predicted RF levels would otherwise exceed appropriate guidelines. On-site RF exposure measurements may also be undertaken to establish the bounds of safe working areas. The applicant will coordinate exposure procedures with all pertinent stations.