

FCC 301 application for CP for Aux antenna  
WZMX (FM) fac. Id. 1900  
November 6, 2013

## ENGINEERING STATEMENT

### **SPURIOUS EMISSIONS**

CBS Radio Stations Inc., the licensee of WZMX (FM) seeks to install and operate an auxiliary antenna that will be shared with co-owned stations WTIC-FM and WRCH.<sup>1</sup> The underlying application proposes to share the new auxiliary antenna utilizing a frequency agile transmitter. Therefore, only one of the stations will be able to operate using the proposed auxiliary antenna at a time.

### **ENVIRONMENTAL**

An Environmental Assessment is not required as grant of this application would not be considered a major environmental action.

The transmitting antenna will be mounted on a tower that has been registered with the Commission (ASR 1045791). The antenna, an ERI, model SHPXA-4BC-HW-SP "AXIOM" 4 bay with 1/2 wavelength spaced elements, will be installed with the center of radiation 131.4 meters above ground. The WZMX ERP is proposed to be 700 W (H+V).

The proposed transmitting facilities will comply with the FCC guidelines limiting human exposure to radio frequency energy. The vertical pattern is typical of a standard ERI SHPX rototiller type antenna. A worst case field factor of .2 at an elevation angle of -50° was considered, based on the manufacturer's theoretical specifications. The maximum power density level at any location at ground level, calculated in accordance with OET Bulletin No. 65 (August 1997), is determined to be less than 5% of the most restrictive applicable limit (Un-controlled General Population). If work is done on the tower in an area where over exposure could occur, the Licensee in coordination with the other users will take necessary action to prevent the overexposure of workers on the tower including reducing the transmitting power or ceasing operation completely.

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<sup>1</sup> Applications are also being prepared and will be filed for WTIC-FM and WRCH to utilize the shared auxiliary antenna.