

**Engineering Statement
In Support of a Minor Amendment
to a Pending Application**

**KLSZ-FM, Van Buren, Arkansas
Human Exposure To Radiofrequency Radiation Study**

<u>CALL</u>	<u>Service</u>	<u>Channel</u>	<u>Freq.</u>	<u>Polarization</u>	<u>Antenna Height** (AGL)</u>	<u>ERP (kW)</u>	<u>Relative Field Factor</u>	<u>Vertical Predicted Power Density (mWcm²)</u>	<u>FCC Uncontrolled Limit (Wcm²)</u>	<u>Percent of Uncontrolled Limit</u>
K209CA	FM	209	89.7	H&V	43.0	0.092	1.000	0.000002	0.200	0.00%
KAOW	FM	205	88.9	H&V	64.0	1.387	1.000	0.000014	0.200	0.01%
KLSZ-FM	FM	274	102.7	H&V	88.0	17.000	1.000	0.000070	0.200	0.04%
K14JJ	TV	14	473	H	73.0	1.000	0.300	0.000050	0.315	0.02%
K18EU	TV	18	497	H	73.0	1.000	0.300	0.000050	0.331	0.02%
K34EN	TV	34	593	H	73.0	1.000	0.300	0.000050	0.395	0.01%
K36EH	TV	36	605	H	73.0	1.000	0.300	0.000050	0.403	0.01%
K43EZ	TV	43	647	H	73.0	1.000	0.300	0.000050	0.431	0.01%
KBPI-CA	DT	46	665	H	53.3	32.000	0.300	0.000130	0.443	0.29%
K48FL	TV	48	677	H	73.0	1.000	0.300	0.000050	0.451	0.01%
K52FJ	TV	52	701	H	73.0	1.000	0.300	0.000050	0.467	0.01%
K58FB	TV	58	737	H	73.0	1.000	0.300	0.000050	0.491	0.01%
K66FM	TV	66	785	H	73.0	1.000	0.300	0.000050	0.523	0.01%
K68ET	TV	38	797	H	73.0	1.000	0.300	0.000050	0.531	0.01%

* Proposed.

Total Percentage of ANSI (uncontrolled) value = 0.45%

** The antenna height indicated above is 2 meters less than the actual antenna height so that the predicted power density consider the 2 meter human height allowance.

The tabulation of elevation pattern for the antenna for each facility was used to determine the power density for each. Furthermore, the highest field between the depression angles of 70 and 90 degrees were used. At a depression angle of 70 degrees or less, the inclination of the angle would place the area of concern above 2 meters.

K209CA, a 2 element (fully spaced between elements) EPA dipole antenna was used to compute the power density for 0.092 kilowatts with an antenna height of 43 meters. Exhibit E, Figure 13A is the print out of the FM Model for Windows using the antenna described.

KAOW uses a Shively 6812-3 (3 element, fully spaced between elements) and operates with 1.387 kilowatts at 64 meters above ground level. Exhibit E, Figure 13B is the print out of the FM Model for Windows using the antenna described.

KLSZ-FM will use a Dielectric DCR-C6 (6 element, 0.5 wavelength spaced between elements) and will operate with 17.0 kilowatts at 88 meters above ground level. Exhibit E, Figure 13C is the print out of the elevation pattern to 90 degrees depression.

K14JJ, K18EU, K34EN, K36EH, K43EZ, K48FL, K52FJ, K58FB, K66FM, & K68ET uses a common antenna, Scala K-723141 antenna. Each facility operates with 1.0 kilowatt at 73 meters above ground level. Exhibit E, Figure 13D is the print out of the elevation pattern to 90 degrees depression.

KBPI-CA uses a Bogner B24UA antenna and operates with 32.0 kilowatts at 53.3 meters above ground level. Exhibit E, Figure 13E is the print out of the elevation pattern to 90 degrees depression.

The results of the study is 0.45% of the limit for “uncontrolled” environments when using an EPA dipole antenna for study purposes. The total percentage for “controlled” environments is only 0.09%.