

Kanza Society, Inc.  
Application for New Noncommercial Educational Broadcast Station  
Guymon, OK, CH 217, CLASS A  
FCC Form 340  
October 12, 2007

## EXHIBIT 22: Environmental Protection Act

*Documentation for Form 340, Section VII, Item 18*

### Impact on the Environment

The proposed facility will be built on an existing tower in an area devoted to agricultural and industrial uses. The nearest community is 6 miles distant (Guymon, Oklahoma). The site is not an "Historic Place" as described in Section 1.1307(a)(4). This application is therefore excluded from the preparation of an "Environmental Assessment" pursuant to Section 1.1306.

### R.F. Radiation Compliance

The proposed FM antenna would be the only RF source on this tower that is not categorically excluded from environmental processing by 47 C.F.R Section 1.1307. The following data was used to calculate the total R. F. Emissions based on the formulas expressed in the OET Bulletin, No. 65, August 1997, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields".

Facility	Frequency	ERP	Height AGL	Antenna
Proposed	91.3 Mhz	3 KW	76.0 Meters	Shively 6812-4

Power density for the Proposed FM station was calculated using the Commission's FM Model software and the following power density was determined:

Facility	Power density	% of maximum for controlled area	% of maximum for uncontrolled area
Proposed	2.687 uW/cm <sup>2</sup>	.27%	1.3%
Total exposure:		.27%	1.3%

Chart 22-A (see below) provides the plot of the proposed FM station's RF emissions 2 meters above ground level.

"Worst case" calculations were used and since it is well known that the actual RF power density level is considerably reduced at vertical angles toward the nadir the applicant is confident that there will be no exposure at the transmitter site greater than the maximum.

Consequently, it appears that the proposed FM station will be in full compliance with the Commission's human exposure to radiofrequency electromagnetic field rules and regulations.

## Conclusion

As the above calculation indicates, the planned source of radiation on the tower falls below the limits set forth in ANSI C95.1 (1992) for radiation density at 2 meters above ground level. As such, there is no threat to the public of passive overexposure to dangerous levels of non-ionizing RF radiation.

Kanza Society, Inc. certifies that it will reduce power or cease operation as necessary so as to protect any workers near the antenna from occupational hazards during periods of maintenance.

**Chart 22-A**

