

ENGINEERING STATEMENT
IN SUPPORT OF AN APPLICATION
FOR AUXILIARY OPERATION
KZZT(FM), MOBERLY, MISSOURI
NOVEMBER 2005

This engineering statement has been prepared on behalf of FM-105, Inc., licensee of FM radio station KZZT, Moberly, Missouri, and is in support of its application for an auxiliary operation.

At present KZZT(FM) is licensed to operate on Channel 288C2 (105.5 MHz) with 50 kW (H&V) effective radiated power (ERP) and 150 meters antenna height above average terrain (HAAT) using a non-directional antenna. It is proposed to operate auxiliary antenna with 28.9 kW (H&V) ERP and 82 meters HAAT using a non-directional antenna. The KZZT(FM) auxiliary antenna would be side-mounted on a new tower with Antenna Structure Registration Number 1251042.

The following information provides pertinent data for the proposed auxiliary operation of KZZT(FM).

Name of the Licensee: FM-105, Inc.

Station Location: MO-Moberly

Frequency: 105.5 MHz

Channel: 288

Class: C2

Hours of Operation: Unlimited

Antenna Type: Non-Directional

Antenna Coordinates (NAD-27):	North Latitude:	39 deg 27 min 10 sec
	West Longitude:	92 deg 21 min 58 sec

	Horizontally Polarized Antenna	Vertically Polarized Antenna
Maximum ERP in the Horizontal Plane (kW):	28.9	28.9
Height of radiation center above ground (meters):	74.7	74.7
Height of radiation center above mean sea level (meters):	327.7	327.7
Height of radiation center above average terrain (meters):	82	82
Antenna Structure Registration Number:	1251042	
Overall height of antenna structure above ground (meters):	91.4	
Ground Elevation above mean sea level (meters):	253	

The attached map shows the computed 1.0 mV/m contours for the licensed main and the proposed auxiliary operation of KZZT(FM). The map indicates the computed 1.0 mV/m contour of the proposed auxiliary operation would be wholly inside the 1.0 mV/m contour for the main operation.

According to the applicant, the proposed KZZT(FM) auxiliary site is not located near any known wilderness area, wildlife preserve or Indian religious site. The proposed FM facilities will not affect or jeopardize the continued existence of any threatened or endangered species or their critical habitats.

The proposed FM facilities are not located in a flood plain area.

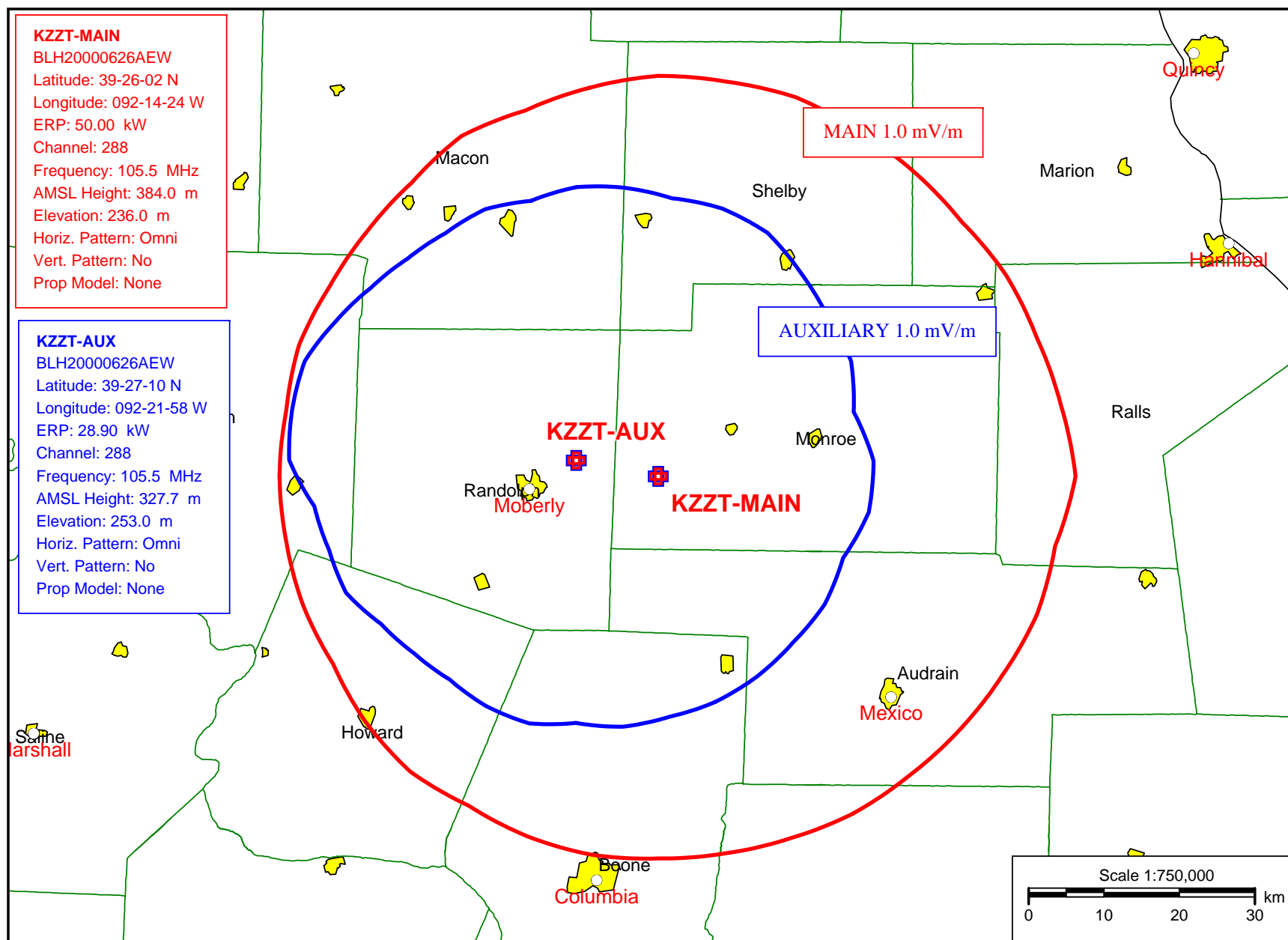
It is proposed to construct a radio tower and a building to house the transmitter and associated equipment at the site. After the construction, the area surrounding the site will be restored, as close as possible, to its original condition. Therefore, the construction of the proposed FM facility does not involve significant changes in the surface features of the site.

It is not proposed to equip the tower with high intensity white lights.

An evaluation has been made to determine compliance with the Commission's specified standards for human exposure to RF fields as set forth in the OET Bulletin No. 65 dated August 1997. For a maximum effective radiated power of 57.8 kW (H+V) and a radiation center of 74.7 meters above ground level, the proposed KZZT(FM) operation would have a maximum of 22.8 microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$) RF field at 2 meters above the base of tower assuming an antenna field factor of 0.25 in the downward direction. The Commission's guidelines for the FM band are 1,000 $\mu\text{W}/\text{cm}^2$ for the occupational/controlled, and 200 $\mu\text{W}/\text{cm}^2$ for the general population/uncontrolled environment.

The above analysis indicates that members of the public and personnel working around the proposed KZZT(FM) auxiliary operation would not be exposed to RF fields exceeding the Commission's guidelines. With respect to work performed on the tower, station KZZT(FM) will establish procedures to ensure that workers are not exposed to RF fields above the Commission's guidelines, by reducing or turning off the power, as appropriate.

For the reasons stated above, it is believed this proposal complies with Section 1.1307(a) and (b) of the Commission's Rules; therefore, under Section 1.1306, it is categorically excluded from environmental processing.



COMPUTED 1.0 mV/m CONTOURS FOR THE LICENSED MAIN AND AUXILIARY OPERATION OF KZZT