

## RADIO FREQUENCY FIELD LEVEL

This section evaluates the radio frequency field (“RFF”) exposure condition created by the operation of the proposed KBZK-DT operation.

For DTV, Channel 13, KBZK-DT will use a Dielectric, Type THA-P2-2H/4HD-1, or equivalent antenna. The antenna manufacturer’s data indicates that the elevation pattern for this antenna has a maximum relative field of approximately 0.1 toward the ground in the vicinity of the tower. The RFF level is calculated using this relative field factor and the procedures prescribed in OET Bulletin No. 65, at 21 kW and a radiation center of 93 meters above ground. The maximum resulting RFF two meters above the base of the tower is computed to be less than 0.85  $\mu\text{W}/\text{cm}^2$ . This is less than 0.1% of the maximum allowed controlled exposure and less than 0.5% of the maximum allowed uncontrolled exposure for the general population.

There are no AM towers within 3.2 kilometers of the proposed site. According to the CDBS data base dated July 30, 2001, there are three FM stations broadcasting from the KBZK-TV tower and two television translators within 100 meters. According to the property owner, K32EP, in fact is not located near this site and is not included in the evaluation.

In 1999, the chief engineer of the property owner evaluated the RFF levels two meters above the base of the tower and found the RFF levels to be 25% of the permissible amount. These measurements were performed with KBZK-TV, KMMS-FM, KSCY-FM, and KYWB-LP operating at full power. In addition, the FCC CDBS data base indicates KXLB-FM operates on this tower with an ERP of 94 kW and 82 meters above the ground. The KXLB-FM operation will introduce about another 7% to the RFF amount resulting in a total of 32% of the permissible amount existing around the base of the tower.

The KUSM DTV Channel 8 operation is proposed to transmit through the same antenna at 21 kW creating RFF level two meters above the base of the tower which is computed to be less than 0.85 uW/cm<sup>2</sup>. This results in less than 0.10% of the stand for controlled exposure and 0.50% for uncontrolled exposure.

It is also proposed to mount another broadband antenna on the tower to transmit NTSC Channel 7 and NTSC Channel 9. The maximum ERP for each of these operations will be 44 kW, resulting in a total ERP of 88 kW. Assuming a relative downward radiation factor of approximately 0.1 towards the ground in the vicinity of the tower the total of the NTSC operations, the RFF in the vicinity of the base of the tower will be less than 1.0% of the maximum allowed for the controlled exposure and less than 2.0% maximum allowed for uncontrolled exposure to the general population. In total, the exposure rate around the base of the tower will not exceed 50% of the maximum allowed for uncontrolled exposure with all facilities within 100 meters of the tower operating at full power.

Authorized personnel and rigging contractors will be alerted to the potential zone of high radiation on the tower, and if necessary, the station will operate with reduced power or terminate the operation of the transmitter as appropriate when it is necessary for authorized personnel or contractors to perform work on the tower. Workers and the general public, therefore, will not be subjected to RFF levels in excess of the current FCC guidelines.

FCC RULE, SECTION 1.1307

The proposed operation based upon the current OET Bulletin No. 65, Edition 97-01, dated August 1997 and Supplement A meets the provisions of the FCC radio frequency field guidelines, and thus, complies with Section 1.1307 of the FCC Rules.

An environmental assessment (EA) is categorically excluded under Section 1.1307 of the FCC Rules and Regulations since the licensee indicates:

- (a)(1) The existing site is not located in an officially designated wilderness area.
- (a)(2) The existing site is not located in an officially designated wildlife preserve.
- (a)(3) The proposed facilities will not affect any listed threatened or endangered species or habitats.
- (a)(3)(ii) The proposed facilities will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.
- (a)(4) The proposed facilities will not affect any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
- (a)(5) The existing site is not located near any known Indian religious sites.
- (a)(6) The existing site is not located in a flood plain.
- (a)(7) The installation of the new panel antenna on the modified tower will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) It is not proposed to change the current lighting on the tower.
  
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines. Authorized personnel will be alerted to areas of the

antennas where potential radiation is in excess of the FCC guidelines. A security fence with a locked gate deters unauthorized access to the tower site.