

## **Human Exposure to Radiofrequency Electromagnetic Field**

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### **Section 106 Compliance (Environmental)**

Southwest FM Broadcasting Co., Inc. is the licensee of K269EE Channel 269D (Facility ID# 61511) licensed to Prescott, AZ. This proposed modification of K269EE construction permit BPFT-20140515AAZ changes the transmit antenna brand and model. K269EE will continue to operate from the same existing tower site at 34-32-27 N ~ 112-25-40 W (NAD 27). The tower is less than 200 feet (61 meters) above ground level and is not required to be registered with Antenna Registration Structure system. The transmitting antenna is a side mounted Bext Model TFC1K, two bay full wave antenna with a center of radiation of 18 meters AGL. K269EE will operate with 250 watts ERP with a center of radiation at 1,935 meters AMSL and 197 meters HAAT. The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of § 1.1306 of the FCC Rules. Because K269EE is locating to an existing tower, it is exempt from a Section 106 review by the SHPO/THPO.

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. The Bext TFC1K antenna is not listed in the Commission's FM Model for Windows Program. Therefore the Phelps-Dodge "Ring Stub" or Dipole (EPA) was selected as a worst case antenna type. The maximum calculated signal density near the tower at two meters above ground level attributable to the proposed facility was calculated to be 38.85  $\mu\text{W}/\text{cm}$  at four meters, which is 19.43 percent of the general population/uncontrolled maximum permitted exposure limit. The applicant will see that signs are posted in the vicinity of the tower warning of potential radio frequency hazards at the site. The applicant will cooperate with other users of the tower to reduce power of the facility or discontinue operation, as necessary, to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.