

APPLICATION FOR CONSTRUCTION PERMIT  
TO INSTALL AUXILIARY ANTENNA  
FOR MESA RADIO, INC.  
LICENSEE OF KDKB, CH 227C, MESA, AZ.

AUGUST 2010

BY: BEEM CO.  
ARCADIA, CA  
(626) 446-3468

## ENGINEERING STATEMENT OF JOEL T. SAXBERG

This application for construction permit to install new auxiliary FM antenna for KDKB, CH 227C, Mesa, Arizona, was prepared for Mesa Radio, Inc., by Joel T. Saxberg of Arcadia, California.

Mesa proposes to install a new ERI SHPX-1AE on a separate tower from its main antenna location on South Mountain. The new location will be at the 110' level on the KTVK television tower. The new FM antenna will be used for emergency purposes and as a backup when work is required on the main transmission system or tower.

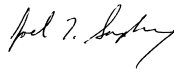
RADIOFREQUENCY ELECTROMAGNETIC FIELDS – Using the FCC OET FM Model computer program for power density calculations around the base of the KTVK tower, FM Model shows a maximum power density of  $195 \text{ mW/cm}^2$  at two meters above a flat plane at a distance of 35 meters from the antenna support structure. This value is 97.5% of the maximum permissible exposure limit for the General Public. It is 19.5% of the MPE limit for Occupational or Controlled areas. This, being an auxiliary antenna, will not be used except when the main antenna is inoperable or repairs are taking place on its tower. When necessary for workers to go aloft, KDKB will reduce power, terminate transmissions and/or switch to another antenna to protect those workers from RF levels in excess of FCC guideline limits.

## ENGINEERING CERTIFICATION

**JOEL T. SAXBERG** deposes and says:

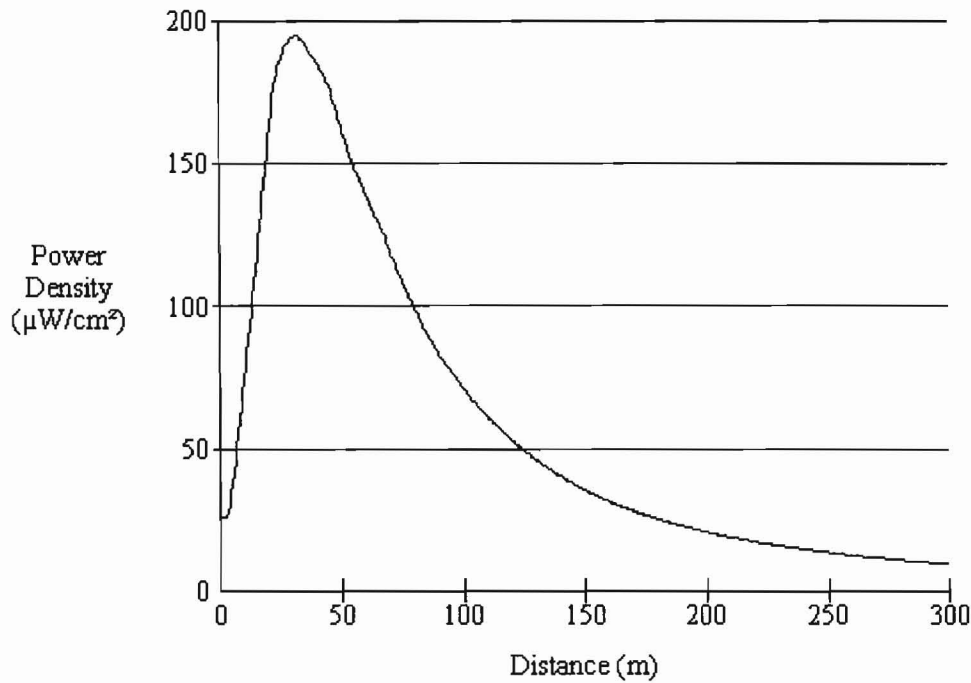
1. That he is President of Broadcast Engineering and Equipment Maintenance Company, "**BEEM CO.**", radio engineering consultants. **BEEM CO.** maintains offices at: 2322 S. Second Avenue, Arcadia, CA 91006. Telephone (626) 446-3468
2. That he was graduated from California State University at Los Angeles, February 1966, with a Bachelor of Science degree in Electronic Engineering. He received a MS degree in Electronic Engineering Technology in August 1996.
3. That he has submitted many applications to the Federal Communications Commission for broadcast and auxiliary broadcast construction permits and licenses.
4. That his experience in broadcast engineering is a matter of record and he has spent over forty years working in the field of radio engineering.
5. That the attached report was prepared by him or under his direction and supervision. That he believes the facts stated therein to be both true and accurate. Statements that are based on information supplied by others are also believed to be true and accurate.
6. That he has performed field work on AM and FM broadcast transmitting systems throughout this country and continues to provide technical consulting services on a daily basis to broadcasters.
7. That he declares under penalty of perjury the foregoing is true and correct.

Executed on Aug 17, 2010



Joel T. Saxberg

## Power Density vs Distance



### Office of Engineering and Technology

Distance (m):  Antenna Type:

Horizontal ERP (W):  Number of Elements:

Vertical ERP (W):  Element Spacing:

Antenna Height (m):