

# BROADCAST WORKS!

*Building Great Radio Stations*

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## Engineering Statement KMTB RF Field Strength Measurements

July 31, 2006

**Engineer's qualifications:** The qualifications of Broadcast Works engineer Stephen Halatyn is a matter of record with the FCC. All measurements were performed according to the test equipment manufacturer's instructions in accordance with Good Engineering Practice.

**Instrument used for measurements:** Narda model 8718 S/N 7033 calibrated October 19, 2005 equipped with an A8742D probe using a correction factor of 1.13 @ 100 MHz.

**Scope of measurements:** To comply with Special Operating Condition number three of the KMTB Construction Permit BPH-20051027ACU. On July 31, 2006 radio frequency electromagnetic (RF) field strength measurements were made throughout the KMTB-FM transmitter site area to determine if there are any areas that exceed the FCC guidelines for human exposure to RF fields. All radio stations located at this site were operating at full forward transmitting power for the duration of these measurements. Measurements were made within the fenced area at the base of the tower, throughout the fenced compound area and to a distance on the property of about 650 feet from the tower including the guy anchor points.

### Measurement results and action taken:

- A small area at the base of the tower exceeded the recommended Occupational Exposure levels. It is not unusual for the type antenna used by KMTB to produce this kind of downward radiation. This area is completely enclosed with a fence *within* the compound perimeter fence. This tower base fencing will be marked with the proper warning signage in accordance with OET Bulletin No. 65 on all four sides. The tower itself will also be marked.
- All measured locations within the site compound fenced area were well below the recommend Occupational *and* General Public Exposure levels.
- Measurements on the property outside the fenced compound area including the guy anchor locations were well below the recommend Occupational *and* General Public Exposure levels. We did note an aberration near power lines at the south side end of the property several hundred feet from the tower base, but this is caused by the electromagnetic field of the power lines, not the radio station RF according to the test equipment technical support group. A series of test proved this conclusion.
- Proper signage will be installed at all required locations at the site.