

RADIOFREQUENCY FIELD MEASUREMENTS FOR  
KAWS CH-206 89.1 MHz  
MARSING, ID

Prepared by:  
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This report is the results of an RF survey taken at the transmitter site of KAWS, Marsing ID. The report is being submitted to comply with part 3 of the "Special operating conditions or restrictions" of the construction permit, permit file number: BMPED-19931207MD, which requires RF field measurements to insure compliance with FCC guidelines (OET Bulletin No. 65, edition 97-01, August 1997).

KAWS is a C1 station operating on channel 206 (89.1 MHz) with an ERP of 8.75 KW. The antenna consists of a 4 bay, vertically polarized array with a center of radiation at 12 meters, and is omni-directional. The transmitter site is located on War Eagle Mountain, near Silver City, ID. Two other full power FM stations operate approximately 200 meters to the west and were in operation at the time of this survey. They are KARJ and KIDH.

Equipment used for the survey consisted of the following:  
Narda model 8718 RF field strength meter, SN# 3020, last calibrated on 8-29-07.  
Narda model 8742 E field probe, SN # 3081, last calibrated on 8-29-07  
The RF field strength meter and E field probe were first calibrated using the procedure outlined in the manual. The meter was set to read and store instantaneous peak values using the FCC standard for "uncontrolled environments".

The survey was conducted along 8 radials beginning from the base of the tower and extending out approximately 100 meters or to the limit the terrain would allow. The probe was oriented to the vertical field of the antenna and held upward approximately 7-8 feet off the ground and swept horizontally walking the radials.

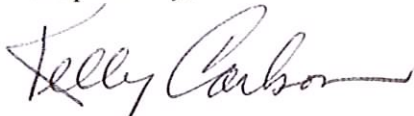
Radial	Peak Value
0 deg.	72% of uncontrolled environment
45 deg.	48% of uncontrolled environment
90 deg.	22% of uncontrolled environment
135 deg.	26% of uncontrolled environment
180 deg.	29% of uncontrolled environment
225 deg.	38% of uncontrolled environment
270 deg.	41% of uncontrolled environment
315 deg.	65% of uncontrolled environment

The variations in level along the 8 radials is primarily due to terrain. The tower sits approximately 15 feet below the peak of the mountain, which is located to the Northwest. The readings to the east, southeast, and south are lower because the elevation rapidly drops off. The due North radial was the highest because of the elevation. This level was measured at a distance of about 100 meters, further than that you are on the reverse slope and the field strength falls off rapidly due to terrain shielding.

In summary, the field strength measurements around the tower of the KAWS transmitter indicate that the highest field strength readings of 72% of maximum for an uncontrolled environment are within the  $200 \mu\text{W}/\text{cm}^2$  uncontrolled (public) exposure limit. As a precaution two yellow "RF Caution signs" have been posted at the site. One on the building facing the access road and one on the tower.

I hereby certify that I have been a broadcast technician for over 35 years. I hold an FCC general class radiotelephone license. I have been involved and supervised the construction of 11 full power fm stations, 2 full power tv stations, 4 low power tv stations and numerous fm translators. I presently hold the title of director of engineering for CSN International and Calvary Chapel of Twin Falls and am responsible for the technical operations of 20 full power fm stations, over 400 fm translator stations, 4 low power tv stations, and a satellite uplink facility. I further certify that the above report is true and correct to the best of my ability.

Respectfully,

A handwritten signature in black ink that reads "Kelly Carlson". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kelly Carlson  
Director of Engineering  
CSN International & Calvary Chapel of Twin Falls