

## Exhibit 18

### TV Channel 6 Study

The proposed site is 164.88 km from a new TV channel 6 application in Des Moines, NM. This is well within the guidelines of 180 km for channel 215 shown in Table A, §73.525 of the Commission's rules. This exhibit demonstrates that the proposed station will not cause interference in an area containing more than the 3,000 persons as specified in §73.525(c). This is possible because the proposed site is on a high channel, and lies well outside the 47 dBu contour of the affected TV station.

The affected population in the area of interference was determined as follows:

1) A chart was prepared tabulating the data from §73.599 Figure 1 for channel 215. It shows each protected contour of the TV station, the associated undesired/desired ratio, and the resultant interfering contour (= TV6 protected contour + U/D ratio) for the proposed FM station to create "just perceptible" interference.

The directional TV6 "bonus" provided by the rules is utilized in this case, as the lines drawn out from the FMN station show that the area in question lies entirely in the area where the 6 dB bonus is employed.

2) Since the proposed FM antenna is circularly polarized, a power correction is made for the polarization.

The correct ERP for all further calculations in this section is 11.5825 kW ( $= H + V/40 = 11.3 + 11.3/40$ ).

3) A map was prepared showing the predicted TV6 protected contour in the area of interest and the associated predicted FM interfering contour over the same area. The only contours needed in this case are the 47 dBu protected TV contour and the corresponding 80.0 dBu interfering FM contour. Contours are calculated according to the procedures specified in §73.684 for TV protected contours and §73.313 for FM station interference contours.

4) The closed curve created representing the area inside the 47 dBu protected contour and also inside the 80.0 dBu interfering contour designates the "area of just perceptible interference". In this case, there is no overlap, and the area does not exist, and there is thus no affected population.

**Since it has been demonstrated that the population in the "area of interference" is less than the statutory limit of 3,000, the Commission may properly grant the proposed construction permit.**

# Exhibit 18

## TV6 Interpolation

Channel 215 - 90.9 MHz

Report Radius 180 km.

TV Contour	Undesired/Desired Ratio	Total	Directional Total
47	27.0	74.0	80.0

