

*
*
*

2355 Ranch Drive*Westminster, CO 80234
303-465-5742 * FAX 303-465-4067
e-mail: stcl@comcast.net

B. W. St. Clair, Inc.

ENGINEERING STATEMENT IN SUPPORT OF AN
APPLICATION TO MODIFY BPCDT-20000110AAD
KLWY-DT, FI 40250, CHANNEL 27, CHEYENNE, WY

Introduction

This application requests a change from channel 28 back to channel 27 as specified in Appendix B of the Eighth Report and Order in the Advanced TV Systems Proceeding. With the proposed parameters, the interference contours to both analog and digital full service and Class A stations are within the interference contours of the construction permit and the current analog license.

The presently installed Bogner BUI-28G, analog antenna is being retained for DTV service. The bent peanut pattern designation (Pattern G) is carried over in this application.

Environmental Assessment

The station will operate using KLWY's tower, antenna, and equipment building. There is no construction and consequently no associated environmental impact.

There are two major contributors to non-ionizing radiation at ground level in the vicinity of this station.¹ The KLWY-DT digital station which is the subject of this application contributes 0.08%, worst case, of the allowable limit for uncontrolled exposure at an angle of 78° below horizontal. This measurement is taken at a height of 2 meters above ground level. In accordance with OET Bulletin 65 standards, KLWY's non-ionizing radiation contribution is below 5% of the uncontrolled exposure limit and is in compliance with Federal Communications Commission rules.

The applicant recognizes its responsibility to reduce the transmitter power to a safe limit when any installation, maintenance or inspection work is done on site.

Required Coverage of the Principal Community

The 48 dBμ F50/90 contour extends well beyond the principal community of Cheyenne, WY. This is demonstrated in the attached contour plot, Exhibit A.

¹ The non-ionizing radiation has been calculated in accordance with OET Bulletin 65. The distance was taken from the radiation center to a head height of 2 meters above ground.

Appendix B Service Contour

The FCC rules allow the predicted contour to exceed the Appendix B contour by up to 5 miles. The largest excursion from the Appendix B contour is only 4.24 miles to the west northwest of the transmitter site. This is within the 5 mile limit. See Exhibit B attached.

Covered Population

The proposed change results in only an insignificant change in covered population. The population associated with this application is 436,916 compared to 436,844 for the FCC's Appendix B population. The population for this application is 72 higher than for the Appendix B parameters. The population difference is less than 0.016% higher.

Allocation Considerations

The co-channel and adjacent channel interference has been analyzed with Longley-Rice methodology in accordance with OET Bulletin 69. The outgoing interference analysis shows that there is no impact to any full service digital station or any Class A station, analog or digital.

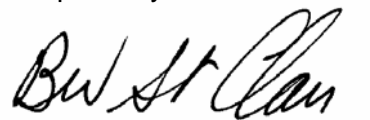
Protected Installations

The nearest FCC monitoring station is at Grand island, NE. The spacing between the KLWY-DT site and the FCC's Grand Island monitoring site is 543 km and protection based on this distance is automatic. The only radio astronomy facility that needs consideration is "Table Mountain" in Boulder, CO. The nearest edge of this facility is 104 km, substantially exceeding the culling distance for notification of 80 km.

Consultants Declaration

This "Engineering Statement" is based on information supplied by the antenna manufacturer, and the applicant. Interference determinations were made using the Techware supplied version of the FCC's OET Bulletin 69 interference analysis program. The contour plot was prepared using the V-Soft Probe III software. The results and statements presented herein are true and correct to the best of my knowledge and belief.

Respectfully submitted



B. W. St. Clair
Engineering Consultant

April 29, 2008