



B. W. St. Clair

2355 Ranch Drive, Westminster, CO 80234
Phone: 303-465-5742 ~ Fax: 303-465-4067
E-Mail: stcl@comcast.net

**Engineering Statement In Support
Of the Request of DNV Spectrum Holdings, LLC,
Permittee of KHMP-LD, Ch 18, Las Vegas, NV
BPDTL-20140108ADP, FI 129211**

Description of Request

This application requests temporary authority to operate KHMP-LD using the ATSC 3.0, OFDM, candidate transmission standard. The requested time period of January 02-09 overlaps the Consumer Technology Association trade show, January 06 – 09, 2016, and the purpose is to demonstrate this transmission standard to the attendees of the trade show. The tests and demonstrations will be based on the Physical Layer Candidate Standard teachings of the Advanced Television Systems Committee's (ATSC) "Next Generation Broadcast Television System," commonly known as ATSC 3.0, documentation of which can be found on the ATSC website at: <http://atsc.org/standards/candidate-standards/>. The applicable documents are A/321 and A/322. The transmission equipment will be supplied by Gates Air and Zenith Electronics, and the technical support and monitoring for compliance will be provided by these two organizations.

Precedents

This test and demonstration is similar to a previous authorization granted to WKOW-TV, Madison, WI, file number 20140729ACG. A minor difference is that this demonstration will use an LPTV station in contrast to a full service station. However, in contrast to the previous demonstration it will be during business hours and available to a very significant number of industry decision makers who will be in Las Vegas for the trade show.

Interference Considerations

LPTV station KHMP-LD holds a CP specifying an ERP of 15.0 kW. This “STA” request specifies an ERP of 6.13 kW, 3.89 dB less. The transmitter will be equipped with an output filter that meets the requirements of the full service mask as specified in 74.794(a)(2)(iii).

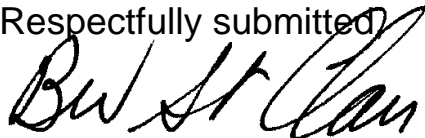
Operation with the proposed “STA” parameters has been analyzed with the Techware OET Bulletin 69 interference analysis program but with the ERP purposely set at 15.0 kW.¹ No interference above or even close to the allowable limit was found and the 3.89 dB excess power provides a safety margin to allow for the different modulation technique.

Conclusion

This demonstration will contribute to the industry’s knowledge of the features of the ATSC 3.0 standard and will not result in any loss of service to the public. Accordingly the grant of this STA request is in the public interest.

Engineer’s Certification

This “Engineering Statement” has been prepared based on data from the FCC’s files, from the equipment suppliers and using an industry accepted interference analysis computer program. The statements herein are true and correct to the best of my knowledge and belief.

Respectfully submitted,


B. W. St. Clair
Engineering Consultant
December 5, 2015

¹ Terrain sampling points spaced 0.5 km and population squares of 0.5 km were used as was done in obtaining the CP.