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B. W. St. Clair

February 11, 2011

Paulette W. Woody, NRQZ Administrator
Interference Office
National Radio Astronomy Observatory
PO Box 2
Green Bank, WV 24944-0002

Via e-mail

Greetings:

We have prepared the engineering for an application to convert LPTV station W40AS from its present analog operation to digital operation. The location of the filing is unchanged and is within the rectangle outlined by coordinates 37°30' to 39°15' North and 78°30' to 80°30' West. For your convenience, a copy is attached and, taken together with this letter, should satisfy the notification requirements of 47CFR73.1030(a)(1).

In connection with this proposal, we understand that the licensee, Valley TV Cooperative, Inc. of Moorefield, WV, has previously worked with your office in regard to other LPTV channel filings it has made at this same transmitter location to specify an effective radiated power and antenna rotation which provide the necessary protection to your facility. To that end, the within application makes the technical changes to this facility as described below.

The attached application documents provide the information you will need to process this information. Supplementary information for your convenience includes the following:

TV Channel 40 = 6 MHz bandwidth, from 626-632 MHz containing a digital TV signal with 19.4 MB/s data carrying broadcast television programming information. The antenna array is a SCALA 4DR-16S, rotated to 314° True. The array has a beamtilt of 11°, which limits the field on the horizon to 0.218. Factory data on the antenna array is attached.

The proposal's total effective radiated power is 45 watts into the 11° tilted maximum lobe resulting in 2.14 watts on the horizon. Antenna is rotated to show a field reduction at a bearing of 233.3° True from the transmitter site. Antenna height and location remain unchanged. Post rotation field at 233.3° True is 0.112; thus $(0.112^2)(2.14) = 0.0268$ watts along that axis. Accordingly, the required power limit along that axis of 0.028 watts is not exceeded by the proposal.

Please contact me at your convenience with any questions you might have. Also please copy me at my office, Wind River Group, Inc., 117 East 11th Street, Loveland, CO 80537 with your reply. Thanks very much for your assistance.

Sincerely,



Jim McDonald
(800) 669-3993