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MBC GRAND CORPORATION

APPLICANT FOR A

MINOR MODIFICATION OF LICENSE BXLH-20120402ABQ FOR

KMOZ-FM, CHANNEL 222

Grand Junction, Colorado

FCC FAC ID 39464

MINOR MODIFICATION TO A LICENSE TO INCREASE POWER

FCC FORM 301 EXHIBIT 35, RFR STATEMENT

May 03, 2014

MBC GRAND BROADCASTING COMPANY, INCORPORATED

APPLICATION FOR A MINOR MODIFICATION OF LICENBSE FOR AUXILIARY FACILITY OF KMOZ-FM TO INCREASE POWER

Grand Junction, Colorado

FCC FAC ID 39464

FCC FORM 301 - ENGINEERING EXHIBIT 35

ENVIRONMENTAL STATEMENT

The instant application is excluded under 1.1306. The proposed power increase application for licensed and constructed auxiliary facility for KMOZ-FM, Channel 222 is one of several FM and television broadcast antennas at the station location required to be considered by 47 CFR 1.1307(b).

MBC Grand Broadcasting already operates KMGJ, KMOZ-FM and KKVT from this site. Using the guidelines in Appendix B of FCC OET 65, the multi user transmitter site is in a very remote and rugged area and meets the OET-65 requirements of "a remote area not likely to be visited by the general public"[1]. Therefore the requirements for compliance with the uncontrolled/general public limits may be accomplished by posting RFR warning signs at the perimeter of each of the small areas where measured exposure levels exceeded the guidelines.

The KMOZ-FM auxiliary antenna is mounted on the same tower[2] with the KMOZ-FM main antenna. As part of the installation process for the currently licensed KMOZ-FM auxiliary in March 2012, the applicant conducted new RFR measurements based on existing background and then adding in the then new facility to determine the actual impact on the RF environment, if

[1] The various site users jointly have an agreement to conduct periodic RFR measurements to insure compliance. These facts were noted in MBC Grand's previous application for KBFE (now KMOZ-FM), in which outlined the remoteness of the site and the measurement requirements. The FCC granted the KBFE Construction Permit and covering License with only a Condition to cooperate to reduce power as necessary for access to the tower. The 1998 RFR Report (See Footnote 3 below) included with the KBFE modification application showed existing stations required to be studied under 1.1307(b) resulted in the combined existing transmitters causing no exposure levels on the ground or in the transmitter building exceeding the allowable 1.0 mW/cm^2 for workers/controlled environment. A small area near the tower and at two of the three guy anchors did measure slightly over the limits for uncontrolled/general public exposure.

[2] This tower has been registered with the commission.

any. Based on those measurements that were supplied to the Commission with the application for the covering License for the auxiliary (BXLH-20120402ABQ, the slightly increased power will not cause excessive radiation levels exceeding those permitted by 47 CFR 1.1310.

Based on previous RFR measurements submitted with the latest KMOZ-FM auxiliary facility application for a covering License, BXLH-20120402ABR and a copy included with this application, the total contribution to the RFR background with the KMOZ-FM main station ON and the KMOZ-FM auxiliary ON, the highest measured RF field was found to not be increased from that observed with the main station OFF and the auxiliary ON. Since the power will be doubled and the antenna system is not changing, based on OET 65, Appendix A, the expected RF levels under the same conditions should be no more that 1.414 times the 5.3% or 7.5% of the allowable occupational standard. This amount is considerably lower than the background level with the KMGJ main operating and even that conforms to the limits for occupational exposure as reported in the RF Survey Engineer's Report.

For completeness, I have evaluated the RFR energy from the antenna system of proposed modified KMOZ-FM Auxiliary transmitter as follows:

Using the guidelines in Appendix B of OET 65, the KMOZ-FM Auxiliary transmitter site is in a very remote and rugged area and meets the requirements of "a remote area not likely to be visited by the general public". Therefore the requirements for compliance with the uncontrolled/general public limits may be accomplished by posting RFR warning signs at the perimeter of each of the small areas where measured exposure levels exceeded the guidelines. The commission has previously acknowledged this fact by granting the KBFE applications for both a Construction Permit and covering License.

With this application, KMOZ-FM Auxiliary on Channel 222 is proposing an ERP of 2.2 kilowatts H-Pol and 1.66 kilowatts V-Pol (3.86 kW total ERP). The proposed KMOZ-FM Auxiliary transmitting antenna is a combination of stacked array of a Scala YA-7 H-Pol only oriented to 145 degrees True combined with a Scala CA-5-FM/CP/RPC single bay "yagi" style CP directional antenna mounted 1 wavelength above the YA-5 and oriented to 100 degrees True. The antenna combination results in a medium gain unit with a power gain of 5X side mounted with the C/R at 22 meters up the tower (lowest element is at least 18.5 meters above head height). Utilizing Equation 10, Page 22, and taking into account the Scala published elevation patterns for the CA-5 and the Scala YA-7 published elevation patterns and including the circularly polarized energy, the maximum expected downward radiation (greater than –30 degrees) from the two bay antenna on the tower is approximately 0.5x field or 0.97 kW. Therefore the calculated required occupational/controlled physical separation is approximately 5.3 meters. Again utilizing Equation 10, Page 22, the required minimum spacing for the general public/uncontrolled environment is 11.8 meters. Since the lowest part of the antenna is 20.5 meters above ground, the height of the structure limits the possible excessive radiation values from KMOZ-FM Auxiliary to at least 8.7 meters above head height at the ground. At 2 meters above ground, the calculated RFR level from the KMOZ-FM Auxiliary antenna is 52 uW/cm^2 or 26% of the OET allowable level for the general public/uncontrolled environment.

Therefore the modification of KMOZ-FM Auxiliary on Channel 222 with a total ERP of 3.86 kilowatts and with the lowest antenna element at least 8.7 meters above head height at ground level, total levels of the KMOZ-FM Auxiliary RFR energy at all points will not increase significantly from that presently recorded in the most recent RFR Report. The addition of the KMOZ-FM Auxiliary is predicted to result in no more 26% additional RFR energy in area(s) receiving levels in excess of that allowed for the general public/uncontrolled environment extending around the tower base out to approximately 8 meters.

The site therefore, with proper posting of RFR signs, will remain in compliance with 1.1307(b) with the proposed amendment of the KMOZ-FM Auxiliary.

In addition, as a precaution to employees, a suitable signs are posted at the base of the tower supporting the KMOZ-FM Auxiliary facility alerting maintenance personnel to the presence of radiofrequency energy so that appropriate action can be taken when access on the tower above approximately 6 meters above ground is required during periods when the instant auxiliary facility is operating.

Also, even though the applicant owns the tower, not all broadcast transmitters, that are co-located on the site, are owned by the applicant. The applicant further states that during periods of maintenance where workers on the tower could be exposed to excessive levels of RFR energy, any transmitting system that could pose a hazard will be either turned off or reduced in power to insure that workers are not subject to excessive values of RFR energy and that periodic RFR measurements will be conducted to insure both worker safely and that the actual perimeter of high RFR energy areas will be posted with suitable warning signs.

With these procedures in place, we believe the proposed modification of the existing KMOZ-FM Auxiliary will be in compliance with the RFR energy protection requirements of 47 CFR 1.1307(b).

BLANKETING INTERFERENCE

The area surrounding the proposed site is an uninhabited mountaintop; therefore, no blanketing interference is anticipated. However, the applicant will investigate and cure any complaints reported within the blanketing area. There are no AM facilities within 3.2 KM.

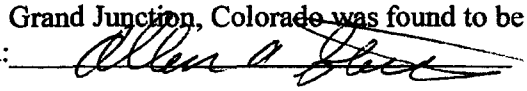
RF RADIATION SURVEY
FOR KMOZ AUXILIARY FACILITY
ON THE BLACK RIDGE ELECTRONIC SITE
NEAR GRAND JUNCTION, COLORADO

RF radiation surveys were conducted by Allen A. Stewart to determine the effect of Auxiliary facilities for KMOZ in regards to MPE limits as per FCC Bulletin OET 65.

The instrument used for the RF survey was a Holaday Model HI2200, Serial #00D61196, with a factory matched and calibrated Model C300, FCC Conformal Electronic Field Probe.

With regards to the KMOZ Auxiliary facility on Black Ridge near Grand Junction:

- The electronic site is at a remote location behind a fence with appropriate signage and is considered to be a Controlled site, therefore Controlled or Occupational limits were used to determine RF exposure per OET 65.
- KMOZ is located on a complex electronic site with many signals radiating concurrently from multiple locations. As a result, a radius of possible impact was determined and studied in the vicinity of the the KMOZ Auxiliary antenna.
- A background study was conducted on the site where the Auxiliary facility is located. Maximum background levels were measured as high as 11.2% of the Occupational standard.
- Tests were then conducted while the KMOZ Auxiliary station was radiating and the main station was not radiating. Test results indicated no measurable change at any point on the ground on the site. Therefore the Auxiliary facility for KMOZ on the Black Ridge Site near Grand Junction, Colorado was found to be in compliance with FCC OET Bulletin 65.

Signed: 

Certification: I, Allen A. Stewart, hereby certify that:

- I am Director of RF Engineering for Colorado Public Radio, and was contracted by MBC Grand to perform the measurements contained in this report.
- I have performed many tasks in the field of Radio and Television Engineering since 1971.
- I hold an FCC General Radiotelephone license PG-16-15717.
- I am familiar with the FCC rules and procedures pertaining to MPE measurements.
- I prepared this report and declare it to be true and accurate to the best of my knowledge.