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Request for Special Temporary Authorization (STA) during KRBK DTS Network Construction

NOTE: The associated STA application is intended to request an Engineering STA but has been filed in the FCC CDBS Electronic Filing System (EFS) as a Legal STA because the EFS would not permit the filing of an Engineering STA for Distributed Transmission System (DTS) records. Answers to engineering questions can be provided at the address and phone number given above or through e-mail to merrill@mwgrp.com.

NOTE: Expedited processing is requested for the associated STA application, as construction of the KRBK DTS network already is under way, and it is expected that the first additional transmitter will be ready for operation within a week or so of filing of the STA application.

When the FCC adopted rules for the use of DTV Distributed Transmission System (DTS) technologies,¹ the Commission specified limitations on the configurations that were to be permitted for the facilities to be built and operated. Those limitations now are included in the FCC rules.² The Commission has not addressed how stations may transition their configurations from existing, licensed, single-transmitter facilities to new DTS operations. The current application therefore seeks permission, through STA, for Station KRBK to operate at variance to certain requirements of the DTS rules, during the period when it completes its DTS network construction, so that it may continue to provide its existing service while bringing the benefits of its new DTS service to the public as quickly as possible. It should be noted that KRBK recently was selected to provide Fox television network service to the Springfield, MO, DMA; thus, with each incremental improvement in the KRBK service provided by added elements of its new DTS network, more of the viewing public in the Springfield market will have availability of over-the-air reception of its Fox network service restored.

The specific rule from which KRBK seeks relief is §73.626(f)(1), the requirement that the combined coverage from all of the DTS transmitters covers all of the applicant's authorized service area. In addition, KRBK seeks permission to operate with a combination of transmitters and antenna patterns mid-way between its currently licensed facility and that authorized in its DTS construction permit during the construction period, with increased power at its current site. This request results from the fact that the transmitter in the center of the KRBK DTS network (at the Polk site) requires construction of a new tower, which is projected to take longer than construction of the other transmitters, all of which will use existing towers. KRBK is giving highest priority to maintenance of service to its existing audience and service area, and that fact drives the current request.

As depicted in the accompanying contour map (Figure 1), the current coverage from the KRBK licensed facility at Eldridge (shown in pink) will be provided in the new KRBK DTS network by two transmitters – those at Eldridge and at Polk. The new antenna pattern at Eldridge (the easternmost contour shown in purple) will not cover the entirety of the current service area. Consequently, to maintain and improve the existing service while building out the rest of the KRBK DTS network, it is proposed to continue using the existing KRBK antenna pattern and elevation at the Eldridge site, in combination with various of the other sites as they become available for use. At the same time, it is proposed to increase the power at the Eldridge site to 20 kW (double its current power) upon installation of the new transmitter that will go there, resulting in the light blue contour from that site until the final configuration is implemented. The light blue contour from the Eldridge transmitter will be maintained until the Polk site comes on line, at which point the final Eldridge antenna pattern and elevation will be activated.

¹ Report and Order in the Matter of Digital Television Distributed Transmission System Technologies, MB Docket 05-312, FCC 08-256, Adopted November 3, 2008, Released November 7, 2008.

² Section 73.626 DTV distributed transmission systems.

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During the period of operation in the configuration described, until such time as the Polk tower and transmitter are completed, there may be a small area in the middle of the network over which no contour from one of the transmitters extends. The area with no coverage during that period will be outside the station's current coverage contour; thus no viewers currently receiving service from KRBK will lose that service. Indeed, service will be improved even in the uncovered area through the increase in transmitter power at the Eldridge site. Service to the principal community (Osage Beach, MO) will be maintained at all times from the Eldridge transmitter and indeed will be improved, even during interim operation, through the increase in power of the Eldridge transmitter.

The period of operation in the configuration described will be short. All equipment for all of the transmitters is on order and much already has been delivered. Construction of the tower at the Polk site is due to commence within a few weeks of the filing of this STA application. Delivery of all remaining equipment for all sites is scheduled, and it will be installed in sequence, with each site built in succession. Because of the necessity of tower construction, barring unexpected problems at one or more of the other sites, the Polk facility will be installed last. Thus, it is likely that the Eldridge transmitter will be operated in its interim configuration in combination with increasing numbers of the other peripheral transmitters until the final step is taken, at which point the Polk transmitter will be activated and the Eldridge transmitter will be switched to its new antenna pattern and elevation, completing transition of the KRBK operation to the DTS network.

Figure 1 — KRBK DTS Network Contours with Overlaid Current Antenna Pattern

