

TECHNICAL SUMMARY  
APPLICATION FOR CONSTRUCTION PERMIT  
TV STATION KBSV  
CERES, CALIFORNIA  
CHANNEL 15 0.5 KW (DA) 41 m

1. This instant application proposes to modify the KBSV license (FCC File No. BLEDT-20090213AAZ) for operation on channel 15 at Ceres, California. Specifically, the purpose is to change transmitter site and operate on channel 15 with a directional antenna maximum ERP 0.5 kW and an HAAT of 41 meters. There will be no change in the overall structure height of the existing tower that will be utilized for the proposed operation (ASRN 1258978).<sup>1</sup>

2. Freeze Compliance: Figure 1 shows the predicted 41 dBu contours for the license and proposed KBSV operations. As indicated, the proposed 41 dBu contour is entirely within the 41 dBu contour for the license. Therefore, the proposal is believed to be in compliance with the FCC's 4/05/2013 Freeze Order Public Notice (DA 13-618).

3. City Coverage Compliance: Figure 1 also demonstrates that the proposed operation is in compliance with the FCC's city coverage requirements as the 48 dBu, f(50,90) contour encompasses 100% of Ceres.

4. As demonstrated in the *TVStudy* analysis exhibit, the proposal complies with the FCC's interference protection requirements based on a cell size of 2 km and profile resolution of 1 point/km. The *TVStudy* analysis indicates distance failures with respect to the San Francisco Land Mobile assignment on channel 16 which is addressed below.

5. Land Mobile Protection: The currently licensed KBSV operation was authorized based on a waiver of the land mobile protection rules of Section 73.623(e) with respect to the San Francisco channel 16 land mobile assignment. The waiver was requested in a construction permit (CP) modification application, FCC File No. BMPEDT-20081002ABR. A copy of the resulting CP in BMPEDT-20081002ABR is attached. Condition 1 of the CP concerns protection of the San Francisco channel 16 land mobile assignment and requires KBSV to eliminate any interference caused to land mobile services operating on channel 16

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<sup>1</sup> The proposed facilities are the current STA facilities for KBSV (LMS File No. 0000067987)

within 128 kilometers of the coordinates specified San Francisco in Section 73.623(e). The applicant respectfully requests continued waiver of the land mobile protection rules of Section 73.623(e) with respect to the San Francisco land mobile assignment on channel 16. In support of the waiver, the applicant will continue to comply with Condition 1 of the CP based on the herein proposed operation. Furthermore, it is noted that the proposed KBSV site is located 129.6 m from the San Francisco land mobile coordinates whereas the licensed KBSV site is located only 96.1 km from the San Francisco land mobile coordinates. In addition, the KBSV land mobile waiver in the CP application included a map (attached hereto) demonstrating the shadowing of the San Francisco Bay area from the KBSV STA antenna at the KBSV studios which is the same location being specified herein.

6. RFR Compliance: The proposed facilities were evaluated in terms of potential radiofrequency radiation (RFR) exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna will be located 40 meters above ground level. The total DTV ERP is 0.5 kW (horizontal polarization). A worst-case vertical plane relative field value of 1.0 is presumed for the antenna's downward radiation (for angles below 60 degrees downward). The calculated power density at a point 2 meters above ground level is  $11.6 \text{ uW/cm}^2$  which is 3.6% of the FCC's recommended limit of  $319.3 \text{ uW/cm}^2$  for channel 15 for an uncontrolled environment. Therefore, based on the responsibility threshold of 5%, the proposal will comply with the RF emission rules.

Access to the transmitting site will be restricted and appropriately marked with RFR warning signs. Furthermore, as this is a multi-user site, a formal RFR protection protocol is in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measure will be taken to assure worker safety with respect to RFR exposure. Such measures include limiting the exposure time, wearing protective clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.