

Engineering Statement
INCREASED IBOC POWER STUDY
prepared for
Bonneville International Corporation
KOSI Denver, Colorado
Facility ID 67844
100 kW Ch 266C0 341m

This study has been prepared on behalf of *Bonneville International Corporation*, licensee of FM broadcast station KOSI for the purpose of determining the allowable digital operating power under the guidelines adopted by the Federal Communications Commission on January 27, 2010¹. The facility under study is that specified in BLH-20180420AAZ using the technical parameters retrieved from the FCC's CDBS system. KOSI is not considered a super-powered FM station and therefore may be evaluated using the guidelines established in paragraph 15 of the *Order*.

As shown on the attached exhibit, the following F(50,10) signal strength contours were calculated for KOSI, as the proponent facility: 51.1 dB μ , 50.6 dB μ , 50.2 dB μ , and 49.5 dB μ . The 60 dB μ F(50,50) Protected contour has been calculated to all nearby first adjacent channel licensed, authorized and proposed facilities. The distance to each contour was calculated for 72 radials using a 3-arc second terrain database and an implementation of the FCC's TVFMFS computer program. To enable unequal digital sideband powers, the upper and lower first adjacent channel stations are shown as red and blue contours respectively.

Using this methodology and as demonstrated on the attached map, the Maximum Permissible FM Digital ERP for KOSI is **-10 dBc**.

¹ See the Order on *Digital Audio Broadcasting Systems and Their Impact on the Terrestrial Radio Broadcast Service*, MM Docket No. 99-325, DA 10-208, Released January 29, 2010, "Order".

**INCREASED IBOC
OPERATING POWER STUDY**

prepared November 2018 for

**Bonneville International Corporation
KOSI(FM) Denver, CO
Facility ID 67844
Ch. 266C0 100 kW (Max) 341 m**

**Cavell, Mertz & Associates, Inc.
Manassas, Virginia**

**KOSI(FM) Proposed Increased
IBOC Interfering Contours F(50,10)**

**KNEC(FM) License
Ch 265C3
Lower 1st Adjacent**

**KFEZ(FM) License
Ch 267C1
Upper 1st Adjacent**

**Colored contour that does not overlap a
nearby facility's protected contour
determines Maximum Permissible FM
Digital ERP greater than -14 dBc.**

- Black = -13 dBc
- Brown = -12 dBc
- Orange = -11 dBc
- Green = -10 dBc

Protected 60 dBu contours

- Red = Upper First Adjacent
- Blue = Lower First Adjacent

