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B. W. St. Clair, Inc.

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**Engineering Statement**  
in support of a  
**“Replacement Digital Translator” Application**  
Associated With KEZI-DT Channel 9, Eugene, OR  
**KEZI, Inc.**

**BACKGROUND**

The applicant, KEZI, Inc. requests a Replacement Digital Translator (RDT) on channel 23 to fill-in coverage areas to the south and southwest of the Eugene, OR area where mountains block the DTV signal. KEZI, Inc. is planning to locate the RDT on a developed communications site to the east southeast of Elkton, OR. This will supply DTV signals to the Elkton, OR area which was served by an analog TV translator that was originally owned by a local TV translator group.

**RULES COMPLIANCE**

Attached is a plot showing the FCC 56dBu Grade B contour overlayed on a map of south western Oregon. The contour was generated by KEZI-TV's channel 9 analog transmission system. Overlayed on the map is KEZI's digital channel 9's 36 dBu or greater signal level. This signal coverage is calculated and shown in pink using the "Longley-Rice Terrain Dependent Algorithm" in accordance with OET Bulletin 69. The proposed "replacement digital translator" is shown with a red color for the FCC 51 dbu protected contour as adjusted for dipole factor or 49.66 dBu. Note that the protected contour of the channel 23 replacement digital transmitter is completely enclosed within the KEZI-TV's former 56 dBu Grade B analog contour. The fill-in coverage is desired within the 41.dBu of the channel 23 translator.

Outgoing interference was tested using the "Longley-Rice Terrain Dependent Algorithm" in accordance with OET Bulletin 69. The computer program settings were set for 1 km squares and 1 km distance increments. The determination of no interference was made based on no full-service or Class A station receiving more interference than 0.5% and no LPTV station or translator receiving more than 2.0%.

**ENGINEER'S STATEMENT**

This application is based on parameters supplied by the engineering staff of KEZI, the FCC CDBS database and the digitized 3 second terrain database. The statements herein are true and correct to the best of my knowledge and belief.

Respectfully submitted,



Gordon H. Allison, Jr.  
Engineering Consultant  
23 April 2012