

Non-Interference Compliance

Regarding Facility id 149588

Channel 204

Description of Exhibit 12 Contents

This exhibit demonstrates that the proposed facility complies with contour overlap and interference protection provisions in all of the applicable rule sections and that this application for a construction permit is in full compliance with 47 C.F.R. § 74.1204.

Let it be noted that should any actual real world interference occur, the applicant acknowledges that it will promptly suspend operation of this translator in accordance with 47 C.F.R. § 74.1203.

Page 2 of this exhibit is an explanation of the method used to demonstrate compliance with contour overlap and interference provisions based on 47 C.F.R. § 74.1204(d), which states:

[A]n application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable.

Page 3 of this exhibit contains the tabulated data from the interference analysis, which shows all stations whose protected contours come within 50 km of the 34 dBμ F(50,10) contour of the proposed translator. These tabulated values were calculated using data from the FCC's CDBS files and 30 arc second terrain data. The column labeled "Adj" shows the number of channels difference between the entry and the proposed translator. The column labeled "Dist" shows the distance in km. The column labeled "Overlap" shows the area of contour overlap in square kilometers.

Page 4 of this exhibit is a portion of a USGS 1:24,000 scale 7.5 minute quadrangle at full scale with the calculated area of interference overlaid. The sheet includes the quadrangle name and measurement scale at the bottom-left corner (note: "Mt" refers to meters). The area of interference was calculated using the free space equation and 120 radials.

Compliance with 47 C.F.R. § 74.1204(d)

All authorized second and third adjacent stations with which the proposed translator has contour overlap are tabulated below. Column four show the station's signal level at the proposed translator's tower site, and column five gives the minimum value within the entire standard interfering contour of the proposed translator (100 dBμ for most classes, 94 for class B, 97 for class B1). The minimum second or third adjacent F(50,50) contour within the proposed translator's standard interfering contour was used to calculate the proposed translator's actual "worst-case" interfering contour.

Application_id	File Number	Callsign	Contour at Tower	Min. Contour
96694	BLED19870108KA	KESD	70.2	70
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				70

FCC 02-244 at Section II.A.5 states that "when demonstrating that 'no actual interference will occur due to . . . other factors,' pursuant to Section 74.1204(d), an applicant may use the undesired-to-desired signal ratio method." The undesired-to-desired ratio for second and third adjacent stations required by § 74.1204(a) is 40 dB. Since the minimum protected contour strength within the proposed translator's standard interference contour is **70 dBμ**, this makes the proposed translator's worst-case interfering contour **110 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **147.1 m** from the transmit antenna.

The interfering contour of the proposed translator was calculated for 120 radials and plotted on the pertinent portion of a USGS quadrangle (page 4 of this exhibit). As demonstrated on the quadrangle, there are no populated structures or highways within the area of interference. There is a road within the area of interference, but it is identified in the legend as a "light-duty road". (Note: FCC 02-244 at Section II.A.6 states that USGS quadrangles "have been recognized as acceptable to demonstrate lack of population") Hence, in accordance with 47 C.F.R. § 74.1204(d) and the clarification provided by the FCC in the decision *Re: Living Way Ministries* (FCC 02-244), a lack of population has been demonstrated within the area of interference and this application is therefore in full compliance with 47 C.F.R. § 74.1204.

Antenna Manufacturer:	NIC
Antenna Model:	BKG77
CORAGL:	56 m
Maximum ERP:	0.044 kW
Interfering Contour:	110 dBμ
Max Int. Contour Distance:	147.1 m

Adjacent Channel Study **For Station K261DC, Facility_id: 149588**

Co-channel through third adjacent:

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
96694	58359	BLED	19870108KA	KESD	S. DAKOTA BRD OF DIRECT FOR ED TELE.	C1	BROOKINGS	SD	LIC	50	725	202	2	35.5	0.2626
502500	93041	BLED	20000609AAR	KJBB	FREEDOM BAPTIST CHURCH	A	WATERTOWN	SD	LIC	0.2	551	206	2	64.2	0
205023	42958	BLED	19941220KA	KRSW	MINNESOTA PUBLIC RADIO	C1	WORTHINGTON	MN	LIC	100	689	207	3	86.9	0
240075	42909	BLED	19970130KA	KRSD	MINNESOTA PUBLIC RADIO	A	SIOUX FALLS	SD	LIC	2	497	201	3	93.7	0
97196	3239	BLED	19870129KB	KAUR	AUGUSTANA COLLEGE ASSOCIATION	A	SIOUX FALLS	SD	LIC	0.68	497	206	2	93.7	0
240254	42981	BLED	19970131KC	KNCM	MINNESOTA PUBLIC RADIO	C2	APPLETON	MN	LIC	34	479	203	1	108.1	0

F SOUTH DAKOTA
OLOGICAL SURVEY
ENT OF HIGHWAYS
6872 IV NE
BROOKINGS NE)

BROOKINGS QUADRANGLE
SOUTH DAKOTA-BROOKINGS CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

