

Non-Interference Compliance

Regarding Facility id 141988

Channel 274

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.

Page 5 of this exhibit is a high resolution aerial photo of the vicinity surrounding the proposed translator's tower site provided by the U.S. Geological Survey's National Aerial Photography Program. It has been included to provide clarification of the nature of the buildings in the vicinity.

Note: The USGS Quadrangle and the aerial photo show the presence of a radio communication building and a tower access road within the zone of predicted interference. Since the building is not habited and the road is a minor road, 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.

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
1091999	BLH20051026ACF	KRVX	75.2	75.2
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				75.2

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 **75.2 dBμ**, this makes the proposed translator's worst-case interfering contour **115.2 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **174.5 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 (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.

Note: The USGS Quadrangle and the aerial photo show the presence of a radio communication building and a tower access road within the zone of predicted interference. Since the building is not habited and the road is a minor road, 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:	ERI
Antenna Model:	100-1
CORAGL:	61 m
Maximum ERP:	0.205 kW
Interfering Contour:	115.2 dBμ
Max Int. Contour Distance:	174.5 m

Adjacent Channel Study **For Station K274BH, Facility_id: 141988**

Co-channel through third adjacent:

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
1091999	164198	BLH	20051026ACF	KRVX	JAMES RIVER BROADCASTING COMPANY, INC.	C1	WIMBLEDON	ND	LIC	99	587	276	2	29.1	1.2233
109247	61016	BLFT	19880204TD	K272CW	SOUTH CENTRAL COMM. OF KULM, INC.	D	KULM, ETC.	ND	LIC	0.078	679	272	2	110.2	0
60582	15271	BLH	19830829AB	KDVL	DAKOTA ROSE BROADCASTING, INC.	C1	DEVILS LAKE	ND	LIC	100	596	273	1	139.1	0
34866	21399	BLH	19811005AH	KZCR	RESULT RADIO, INC	C1	FERGUS FALLS	MN	LIC	100	579	277	3	141.7	0
167931	42922	BLH	19911216KA	KNTN	MINNESOTA PUBLIC RADIO	C1	THIEF RIVER FALLS	MN	LIC	100	439	274	0	152.1	0
66048	36355	BLH	19840201AE	KBWS-FM	PHEASANT COUNTRY BROADCASTING, INC	C1	SISSETON	SD	LIC	100	698	275	1	152.4	0
201032	56800	BLH	19940715KB	KRCQ	DETROIT LAKES BROADCASTING COMPANY,	C2	DETROIT LAKES	MN	LIC	50	583	272	2	164.3	0

Intermediate Frequencies (53 and 54 channels difference):

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Clr
44334	49213	BLED	19820621AB	KDSU	NORTH DAKOTA STATE UNIVERSITY	C	FARGO	ND	LIC	100	593	220	54	56.1	27.1



