

## **Non-Interference Compliance**

Regarding Facility id 149132

Channel 273

### **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.

**Note: The quadrangle indicates the presence of county roads in the area of interference. It is apparent that these are not major roads, e.g. interstate highways, as described in the Living Way decision and therefore "lack of population" is demonstrated.**

### 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
1099429	BPH20051122AAK	KMMO-FM	64.6	64.6
615922	BLH20010920AAG	KCKC	70.5	70.2
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				<b>64.6</b>

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 **64.6 dBμ**, this makes the proposed translator's worst-case interfering contour **104.6 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **398.3 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 quadrangle indicates the presence of county roads in the area of interference. It is apparent that these are not major roads, e.g. interstate highways, as described in the Living Way decision and therefore "lack of population" is demonstrated.**

Antenna Manufacturer:	ERI
Antenna Model:	100-1
CORAGL:	94 m
Maximum ERP:	0.093 kW
Interfering Contour:	104.6 dBμ
Max Int. Contour Distance:	398.3 m

**Adjacent Channel Study**  
**For Station K273BE, Facility\_id: 149132**

**Co-channel through third adjacent:**

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
615926	11279	BXLH	20011207AAB	KCKC	INFINITY RADIO LICENSE INC.	C0	KANSAS CITY	MO	LIC	52	475	271	2	50.8	0.555
615922	11279	BLH	20010920AAG	KCKC	INFINITY RADIO LICENSE INC.	C0	KANSAS CITY	MO	LIC	100	600.5	271	2	50.8	0.555
1099429	43226	BPH	20051122AAK	KMMO-FM	MISSOURI VALLEY BROADCASTING, INC.	C1	MARSHALL	MO	CP	76	522	275	2	58.7	0.555
641944	149106	BNPFT	20030317FWW	NEW	EDGEWATER BROADCASTING, INC.	D	CAMERON	MO	APP	0.14	401	273	0	47.8	0
641957	149119	BNPFT	20030317FXX	NEW	EDGEWATER BROADCASTING, INC.	D	KANSAS CITY	MO	APP	0.075	396.6	273	0	49.3	0
192931	43226	BLH	19931213KB	KMMO-FM	MISSOURI VALLEY BROADCASTING, INC.	C1	MARSHALL	MO	LIC	100	337	275	2	64.8	0
1079878	11279	BXLH	20050815ACA	KCKC	INFINITY RADIO INC.	C0	KANSAS CITY	MO	LIC	36	410	271	2	66.5	0
1165697	143354	BLFT	20061221ACI	K274BR	HORIZON CHRISTIAN FELLOWSHIP	D	BONNER SPRINGS	KS	LIC	0.077	374	274	1	75.2	0
1118074	149137	BMPFT	20060308AJB	K273BF	EDUCATIONAL MEDIA FOUNDATION	D	ST. JOSEPH	MO	CP MOD	0.17	368	273	0	91.9	0
1189401	149101	BLFT	20070604AAG	K270BF	HORIZON CHRISTIAN FELLOWSHIP	D	BROOKFIELD	MO	LIC	0.25	286	270	3	94.3	0

