

## **Non-Interference Compliance**

Regarding Facility id 152459

Channel 227

### **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.

<b>Application_id</b>	<b>File Number</b>	<b>Callsign</b>	<b>Contour at Tower</b>	<b>Min. Contour</b>
285594	BLH19990526KB	KLSC	79.2	79.2
Minimum F(50,50) Contour of Adjacent Station within Proposed Translator's Standard Interfering Contour				<b>79.2</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 **79.2 dBμ**, this makes the proposed translator's worst-case interfering contour **119.2 dBμ**. By the free-space equation, this contour is calculated to extend a maximum of **121.6 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.**

<b>Antenna Manufacturer:</b>	<b>ERI</b>
<b>Antenna Model:</b>	<b>100-1</b>
<b>CORAGL:</b>	<b>49 m</b>
<b>Maximum ERP:</b>	<b>0.25 kW</b>
<b>Interfering Contour:</b>	<b>119.2 dBμ</b>
<b>Max Int. Contour Distance:</b>	<b>121.6 m</b>

# **Adjacent Channel Study** **For Station K227BK, Facility\_id: 152459**

## **Co-channel through third adjacent:**

Application_id	Facility_id	Prefix	ARN	Call	Licensee	Class	City	State	Status	ERP	RCAMSL	Channel	Adj	Dist	Overlap
285594	4154	BLH	19990526KB	KLSC	ZIMMER RADIO OF MID-MISSOURI, INC.	C2	MALDEN	MO	LIC	50	229	225	2	19.2	1.4918
63071	60197	BLH	19831115AA	KBKG	SHIELDS-ADKINS BROADCASTING, INC.	A	CORNING	AR	LIC	3	129	228	1	60.7	0
1091652	60197	BPH	20051014AAA	KBKG	SHIELDS-ADKINS BROADCASTING, INC.	C3	CORNING	AR	CP	12	203.2	228	1	76	0
285709	78626	BLH	19990528KB	KGKS	ZIMMER RADIO OF MID-MISSOURI, INC.	C3	SCOTT CITY	MO	LIC	16.5	262	230	3	84.5	0
607047	24666	BLH	20020722AAZ	KAMJ	PHOENIX BROADCASTING GROUP, INC	A	GOSNELL	AR	LIC	1	224	230	3	84.9	0
156848	15022	BLH	19910131KC	KBDZ	D/B/A DONZE COMMUNICATIONS, INC.	A	PERRYVILLE	MO	LIC	1.6	385	226	1	110.4	0
200412	57886	BLH	19940623KA	WKBQ	COVINGTON BROADCASTING, INC.	A	COVINGTON	TN	LIC	6	193	228	1	123	0
276163	6877	BMLH	19981027KA	WKYQ	BRISTOL BROADCASTING COMPANY, INC.	C1	PADUCAH	KY	LIC	100	388	227	0	129.6	0
1120382	24609	BLH	20060322ADI	WWGM	GRACE BROADCASTING SERVICES, INC.	C3	ALAMO	TN	LIC	14	241	226	1	132.9	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
1042599	164227	BNPH	20050103AIX	KGLU	PATRICIA E. VAN ZANDT	A	GIDEON	MO	CP	6	182	280	53	19.9	9.9
232838	26174	BLH	19960926KC	KMHM	HAROLD L. LAWDER	A	LUTESVILLE	MO	LIC	2.5	335	281	54	80.3	70.3
1045894	59407	BLH	20040723AQU	KPOC-FM	COMBINED MEDIA GROUP, INC.	A	POCAHONTAS	AR	LIC	6	142	281	54	96.3	86.3

