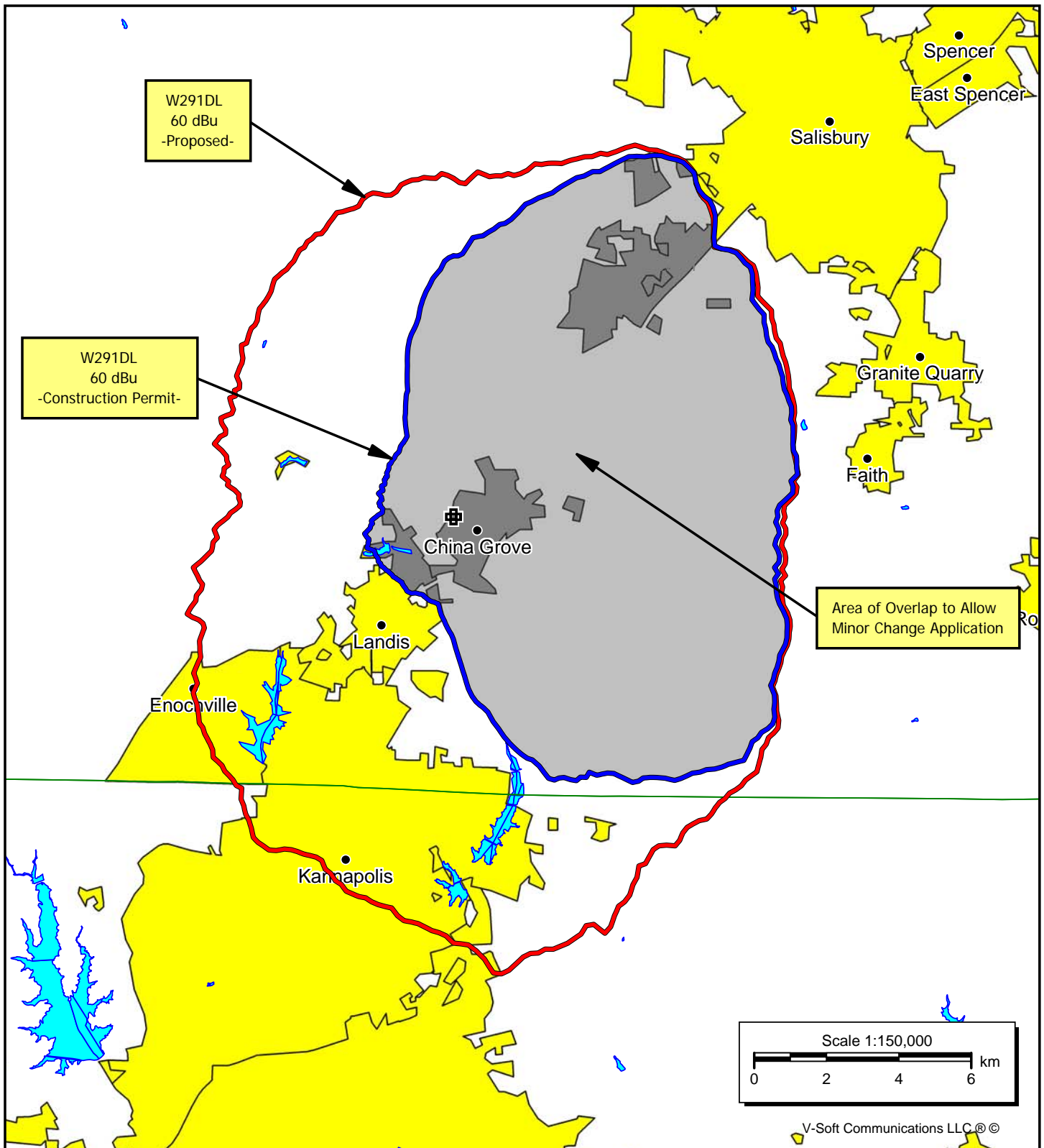


Minor Change Application
Translator W291DL
Seeks Channel 229D – 93.7 MHz
0.250 kW ERP (DA) – 299.3 m COR AMSL
China Grove, North Carolina
July 2020

This minor change application seeks to change the output channel of Translator W291DL (CP) from Channel 291 to non-adjacent Channel 229 pursuant to §74.1233(a)(1). During equipment tests, it was discovered that W291DL (CP) receives strong interference from co-channel station WOLS (FM) at Waxhaw, NC. The applicant originally filed an applied for Channel 290 in the FM translator window for AM revitalization, but amended to Channel 291 in a settlement with a mutually exclusive application. Before amending to Channel 291, representatives of the applicant listened to the channel in and around China Grove, NC and determined the signals of the co-channel stations would not be difficult for the translator to overcome. When W291DL (CP) began testing its equipment, it was apparent the translator was overpowered by the signal of WOLS (FM). Attached to this exhibit are an allocation study of the licensed facility and an explanation from Ted Fuller, the applicant's local engineer describing the interference received by Translator W291DL (CP).

Attached are the following:

1. Minor Change Demonstration Map
2. Allocation Study on Channel 291
3. Local Engineer's Explanation of Interference Received by W291DL (CP)



Minor Change Demonstration
Translator W291DL
Seeks Channel 229D - 93.7 MHz
0.250 kW ERP (DA) - 299.3 m COR AMSL
China Grove, North Carolina

Bromo Communications, Inc.

July 2020

Allocation Study of CP Facility

Translator W291DL

Seeks Channel 229D – 93.7 MHz
0.250 kW ERP (DA) – 299.3 COR AMSL
China Grove, North Carolina
July 2020

REFERENCE		CH# 291D - 106.1 MHz, Pwr= 0.25 kW DA, HAAT= 0.0 M, COR= 299 M								DISPLAY DATES		
35 34 21.5 N.		Average Protected F(50-50)= 7.1 km								DATA 07-08-20		
80 35 21.2 W.		Standard Directional								SEARCH 07-08-20		
CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DI ST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*	
293C1 Salisbury	WEND	LIC	NC	301.6 121.6	4.18 BLH19990302KD	35 35 32.50 80 37 43.20	84.000 319	9.9 552	71.9 Capstar Tx, LLC	-7.9*	-67.7*	
291C2 Waxhaw	WOLS	LIC N	NC	193.7 13.6	78.80 BLH20081014ADN	34 53 01.50 80 47 36.30	21.000 188	122.5 358	47.5 Ghb Of Waxhaw, Inc.	-49.9*	17.5	
291D China Grove	W291DL	CP D	NC	0.0 0.0	0.00 BNPFT20180316AAN	35 34 21.50 80 35 21.20	0.250	299	---Reference--- South Rowan Broadcasting C			
290D Mooresville	W290DK	LIC D	NC	276.4 96.3	22.97 BLFT20180716AAG	35 35 43.50 80 50 30.30	0.250	19.4 360	12.7 Iredell Broadcasting, Inc	1.5	7.0	
291C3 Jefferson	WMMY	LIC N	NC	313.5 132.9	123.27 BLH20000104ABR	36 19 53.40 81 35 16.30	10.500 155	115.2 1226	47.2 High Country Adventures, L	3.7	67.7	
291D Lexington	W291DD	LIC D	NC	27.8 208.0	65.11 BLFT20181219AAQ	36 05 25.10 80 15 05.10	0.250	48.3 360	14.3 Davidson County Broadcasti	5.2	11.8	
291C1 Knightdale	WTKK	LIC	NC	85.9 267.1	186.66 BLH20090601APS	35 40 28.60 78 31 39.00	27.500 489	162.0 567	71.4 Capstar Tx, LLC	15.1	83.7	
289C1 Clemons	WVBZ	LIC N	NC	12.4 192.6	91.59 BLH20110902AAJ	36 22 36.90 80 22 07.80	30.000 472	8.6 794	74.1 Clear Channel Broadcasting	72.1	16.7	
289D Pineville	W289BO	LIC	NC	212.2 32.0	49.01 BLFT20180718AAN	35 11 56.90 80 52 35.20	0.250	1.1 332	13.3 Truth Broadcasting Corpora	43.6	35.3	
291D Greensboro	W291DM	CP D	NC	52.4 232.9	93.99 BMPFT20180723ABE	36 05 09.00 79 45 37.90	0.250	46.0 399	13.9 Rcr Of Randolph County, Lt	37.3	44.6	
238C1 High Point	WHPE-FM	LIC	NC	52.4 232.8	63.62 BMLED20140602AZZ	35 55 11.50 80 01 46.10	100.000 159	41.8 399	27.4 Bible Broadcasting Network	21.5R	42.1M	
290D Hickory	W290CW	LIC	NC	285.2 104.8	64.33 BLFT20160915AAJ	35 43 20.50 81 16 37.30	0.250	19.9 391	12.8 Newton-Conover Communi cati	42.1	48.2	
290L1 Troy	WURE-LP	LIC	NC	110.2 290.6	67.07 BLL20161222AAV	35 21 43.50 79 53 42.10	0.037 49	224	48.5 Uwharrie Mountain Radio	47.3		

Terrain database is FCC 30 meter, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference Zone= East Zone, Co to 3rd
adjacent.

All separation margins (if shown) include rounding. Call signs with exclamation marks need not be protected.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
***affixed to 'IN' or 'OUT' values = site inside restricted contour.

< = Station meets FCC minimum distance spacing for its class.

Reference station has protected zone issue: AM tower

DISCRIPTION OF INTERFERENCE PROBLEM TO FM TRANSLATOR W291DL 106.1, CHINA GROVE, NC

JULY 8, 2020

When the frequency of 106.1 was first selected for this translator, the channel appeared to be clear of major interference. Listening surveys were done both in China Grove and in Salisbury and the interference from multiple 106.1 stations seemed acceptable. After several months had passed, it was noticed that a strong signal from WOLS 106.1, in Waxhaw, was covering both towns, and indeed all of Rowan County. WOLS is licensed for 21,000 watts. It may be that WOLS was running on reduced power at the time of the listening survey, or running on reduced power from their backup site. The backup site is licensed for 4500 watts.

The W291DL construction permit specifies horizontal polarization only, and the antenna is highly directional. Due to concerns about interference, signal strength tests were run and it has been concluded that the WOLS interference will severely hamper coverage of W291DL, even in areas close to the transmitter site. It is believed that the horizontal polarization-only W291DL antenna will not be able to compete with a circularly-polarized WOLS. Because of protection issues with 105.9, the antenna system cannot be changed to create a more favorable result for W291DL.

A listening survey of 93.7 for the same area has produced much better results.

Ted Fuller

Broadcast technician

704 633 1009