

EXHIBIT 12 – COMPREHENSIVE TECHNICAL EXHIBIT

Applicant seeks to modify facility K286CH to change from a non-directional to a directional antenna system, change the Center-of-Radiation above mean sea level (CORAMSL), reduce the effective radiated power (ERP), and specify this unit as a “fill-in” translator for primary station KIKX (FM), Ketchum, ID.

LACK OF CONTOUR OVERLAP

The following study (**Figure 1**) reveals the lack of any contour overlap with 1st, 2nd, 3rd adjacent and I.F. related facilities, excepting KIKX, which is the primary station.

As a “fill-in” translator for KIKX, operating on a 2nd adjacent channel, operation of K286CH is permitted under 74.1203(d) of the commission’s rules. Intervening mountainous terrain and distance between K286CH and the principal community (Ketchum, ID) (see **Figure 2**) prevents any interference to the primary station’s signal in the City of License.

(NOTE: All contour calculations reflect the use of the NED 03 SEC terrain database)

K286CH MINOR MODIFICATION												
Iliad Media Twin Falls, Llc												
CH# 286D - 105.1 MHz, Pwr= 0.19 kW DA, HAAT= 64.6 M, COR= 1233 M												
Average Protected F(50-50)= 9.8 km												
Standard Directional												
DISPLAY DATES												
DATA 06-14-19												
SEARCH 06-18-19												
REFERENCE	CH#	CALL	TYPE	ANT	AZI.	DIST	LAT.	Pwr(kw)	INT(km)	PRO(km)	*IN*	*OUT*
42 33 45.0 N.	286D	K286CH!	LIC	C	0.0	0.00	42 33 45.0	0.250				
114 32 34.0 W.		Twin Falls		ID	0.0	BLFT20141113AFS	114 32 34.0		1229	Iliad Media Twin Falls, L1		
	286C	KJOT	LIC	CX	317.0	182.97	43 45 18.0	53.000	196.7	93.0	-29.9*	37.5
		Boise		ID	135.9	BMLH20050511ABI	116 05 52.0	789	2188	Lotus Boise Corp.		
	284C	KIKX	LIC	C	21.5	85.73	43 16 45.0	100.000	13.4	90.9	58.4	-6.2*
		Ketchum		ID	201.8	BMLH20061114ABQ	114 09 14.0	481	2000	Iliad Media Twin Falls, L1		
		PRIMARY STATION										
	286C	KUDD	LIC	C	136.6	287.43	40 39 35.0	22.000	204.2	95.5	74.1	169.8
		American Fork		UT	318.2	BLH201511130CJH	112 12 05.0	1243	2831	Broadway Media Ls, Llc		
	233C1	KSKI-FM	LIC	CX	5.6	120.68	43 38 37.0	2.500	133.9	57.1	21.5R	99.2M
		Sun Valley		ID	185.7	BLH20130930BUY	114 23 50.0	583	2658	Rp Broadcasting Ls, Llc		

Terrain database is NED 03 SEC, 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= west 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.

FIGURE 1

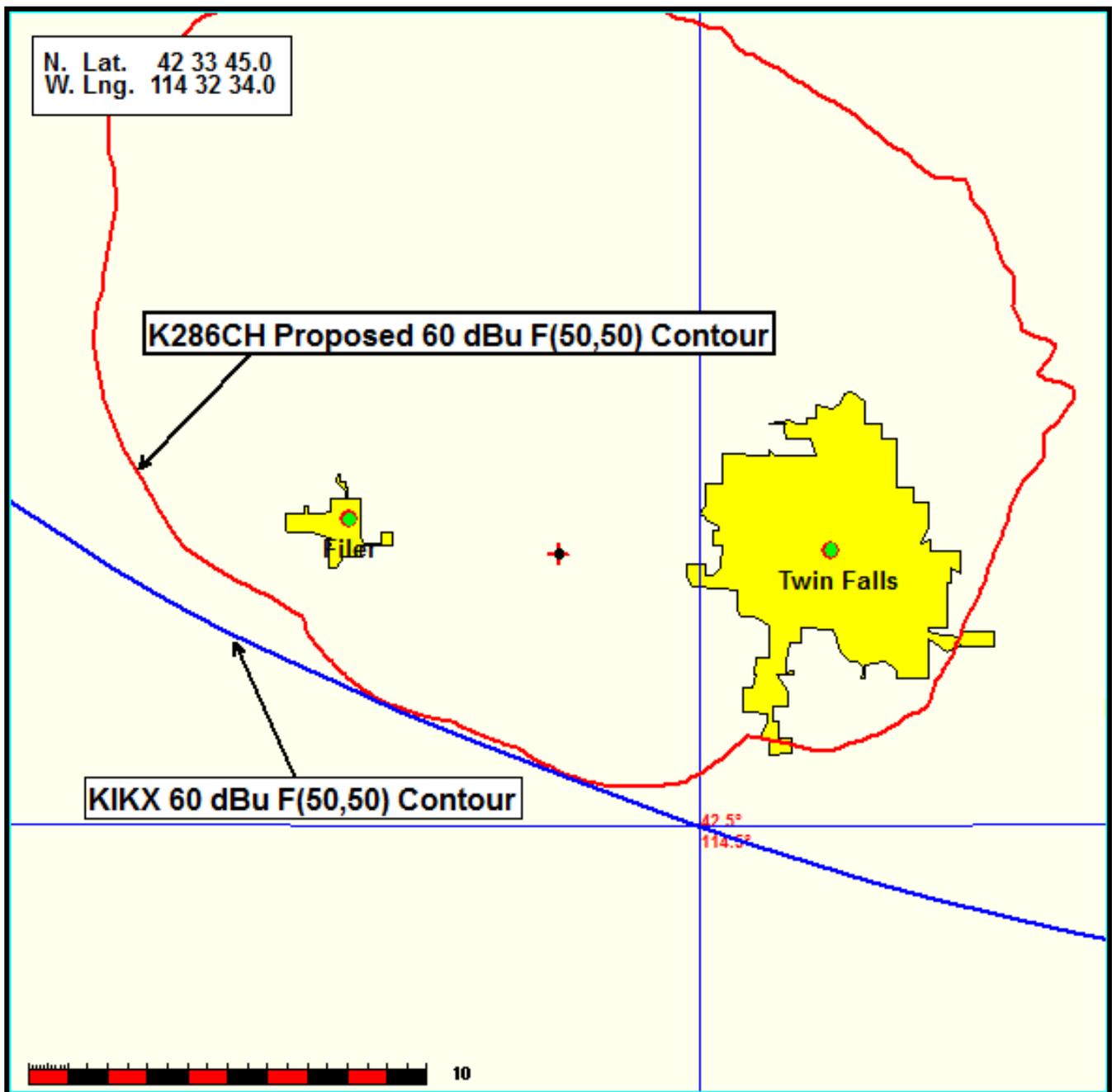


FIGURE 4

ENVIRONMENTAL COMPLIANCE

The proposed facility will be located at an established communications site on an existing support structure (ASR # 1021395). There will be no new construction.

The proposed facility complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments as set forth under §1.1307(b)(3) of the Commission's rules and the guidelines for RF radiation protection guidelines as set forth in OET Bulletin No. 65 (Edition 97-01), and the accompanying Supplement A, (Edition 97-01). The site is intended to house multiple transmitters, therefore the potential for human exposure to non-ionizing radiofrequency radiation has been evaluated with regard to the §1.1307(b)(3) "five percent (5%) contribution rule" utilizing the Commission's own FM Model web-based software application. The use and implementation of this FCC sanctioned software is a matter of record before the Commission.

With regard to the "five percent (5%) contribution rule", §1.1307(b)(3), five percent (5%) of the maximum permissible 200 $\mu\text{W}/\text{cm}^2$ uncontrolled limit yields a threshold value of 10 $\mu\text{W}/\text{cm}^2$. Five percent (5%) of the maximum permissible 1000 $\mu\text{W}/\text{cm}^2$ controlled limit yields a threshold value of 50 $\mu\text{W}/\text{cm}^2$. Therefore, single contributions of $\leq 10 \mu\text{W}/\text{cm}^2$ remain within the tolerances as allowed by §1.1307(b)(3) and its governing OET Bulletin No. 65 (Edition 97-01) for the more restrictive of these two protections.

The proposed Channel 286 – Twin Falls, ID analog FM Translator (Facility ID: 151707) will operate on CH286 (105.1 MHz) with 0.190 kW ERP circular polarization (H&V). The proposed operation will broadcast from an antenna COR mounted 99 meters above ground level (AGL). For purposes of this RF Compliance Study, a worst case one bay EPA Type 1 element as defined by the Commission's own FM Model - Appendix B (issued March 31, 2016) has been assumed. Application of these parameters using the FCC's FMModel software yields a worst case total of 0.8120 $\mu\text{W}/\text{cm}^2$ at 26 meters from the base of the tower (See **Figure 5** below). This is well below the 5% contribution threshold.

To ensure complete protection, the maximum FM contribution has been assumed without regard to any restricted access fencing distance. In addition, the facility is, or will be, properly marked with signs. Furthermore, coordination with other users of the site will be secured to reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines

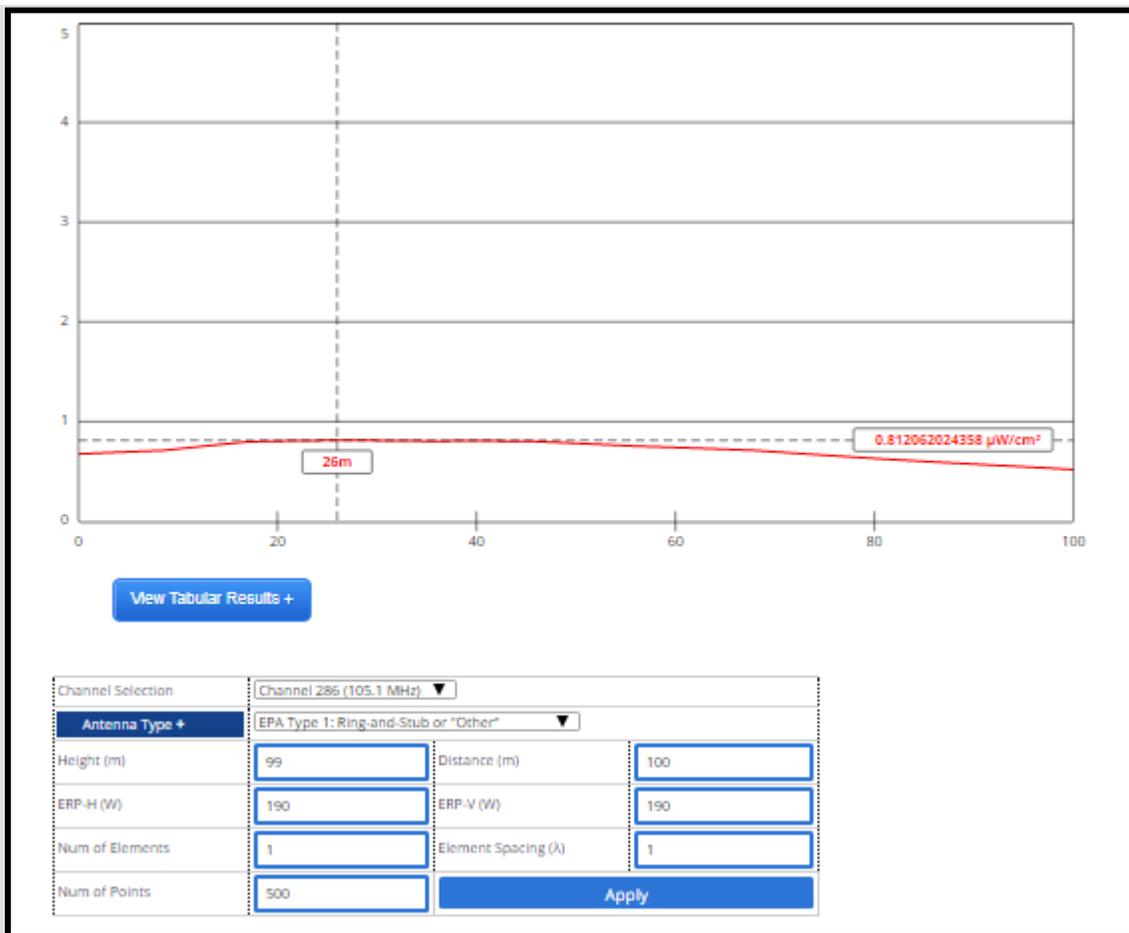


FIGURE 5