

Broadcast Engineering Services of Bonny Doon, Inc.

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**Engineering Statement
Minor Change
To
KANO Hilo, Hawaii
BLED-20080501ACI**

The licensee proposes to modify KANO by changing the operating frequency from Channel 216 (91.1 MHz) to Channel 206 (89.1 MHz). The city of license, antenna location, effective radiated power, height above sea level, height above average terrain, and height above ground of the existing and proposed antenna system would be unchanged. There would be no change to the existing coverage area.

A comprehensive frequency search reveals no overlaps to any existing or proposed full power facilities in the state of Hawaii will be caused by this proposed frequency change.

The existing and proposed transmitting antenna is a circularly polarized, full-wave spaced Shively 6810-4. The worst case calculated RFR level is 96.7 mW/cm² at 17.4 meters from the support structure, which is well below the occupied standard, and the same as currently exists at the site. There are no other broadcast facilities at this tower

Because the calculated RFR level is below the public standard of 200 mW/cm², and well below the occupied standard of 1000 mW/cm², the existing and proposed operation appears to be compliant with FCC and ANSI limits. The site is located behind locked gates, access is limited to service personnel, and the tower and the overall site have RFR caution and warning signage posted throughout.

The applicant will, in coordination with other users of the site, 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.

Respectfully submitted,



Donald E. Mussell Jr. NCE-CBT
Consulting Engineer
March 22, 2014

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KANO Frequency Modification
Hawaii Public Radio, Inc.

REFERENCE
19 35 31.4 N.
155 07 36.0 W.

CH# 206C2 - 89.1 MHz, Pwr= 30 kW, HAAT= 0.0 M, COR= 536 M
Average Protected F(50-50)= 23.64 km
Omni-directional

DISPLAY DATES
DATA 03-21-14
SEARCH 03-21-14

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
207D Hilo	K207CD	LIC _C_ HI		34.2 214.2	18.79 BLFT20060313ADJ	19 43 56.0 155 01 32.0	0.250 -35	10.1 38	7.1 Educational Media Foundati	-57.8*	-85.8
206D Kailua Kona	K206EJ	LIC _V_ HI		279.9 99.6	84.52 BLFT20120131AIO	19 43 15.0 155 55 16.0	0.010 867	43.1 1659	3.2 Calvary Chapel Of Twin Fal	35.3	-29.7

Terrain database is FCC NGDC 30 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= - Zone 2, Co to 3rd adjacent.
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 protected contour.

KANO Frequency Modification
Hawaii Public Radio, Inc.

Coverage Study - FCC NGDC 30 Sec
03-21-2014

KANO CH206 C2, 30.0 kW, 0.0M HAAT, 536.0M COR AMSL
Service Contour = 60 dBu. Population = 79,145



