

MINOR AMENDMENT TO APPLICATION FOR CONSTRUCTION PERMIT
ENGINEERING NARRATIVE AND RF RADIATION ENVIRONMENTAL ANALYSIS
CH 12 3 kW DIRECTIONAL BNPDL-20090825AAU
MOUNT WILSON FM BROADCASTERS, INC. FACILITY ID 181664
BELLINGHAM, WASHINGTON
NOVEMBER 2021

Mount Wilson FM Broadcasters, Inc. ("MWFMB") has an application pending for operation on CH 12 at Bellingham, Washington. That application is now a singleton application. This application proposes a minor change to the pending application, BNPDTL-20090825AAU. The proposed facility is believed to qualify as a minor change as there is no change in the channel of operation or site location.

The ERP is increased from 1.0 kW to 3.0 kW and the polarization remains elliptical. FCC TVStudy software was utilized to determine the interference levels associated with the proposed CH 12 facility and they are pasted in below. The proposed antenna system consists of a two bay Alive Telecom model ATC-BCE42CWS-V3-12. The antenna is elliptically polarized with 1.0 degree of beam tilt. Utilizing formula 10 of OET Bulletin No. 65, Edition 97-01, a value F of 0.5 has been used to calculate the power density 2 meters above ground. The antenna RC is 30 M AGL. The maximum power density is 41.5 uw/cm squared calculated for an ERP of 3,000 watts H. polarization and 900 watts V. polarization. This value is 20.8% of the Public Exposure MPE per section 1.1310. Based on this analysis, it is believed that the proposed facility follows OET-65 Guidelines.

The applicant will reduce power or cease transmission as required to meet FCC OET-65 Guidelines.

The proposed antenna support is existing along with the transmitter building, access road and power at FCC registered tower #1251758.

Below is a copy of the TVStudy interference analysis for CH 12 based on the facilities described above. As can be seen at the conclusion of the report there is no impermissible ISIX interference.

TVStudy Report: Proposed facility

Study created: 2021.11.27 13:30:46

Study build station data: LMS TV 2021-11-20

Proposal: NEW D12 LD APP BELLINGHAM, WA
File number: BNPVVL20090825AAU
Facility ID: 181664
Station data: User record
Record ID: 1050
Country: U.S.

Build options:

Protect pre-transition records not on baseline channel

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
Yes	KSTW	D11	DT	LIC	TACOMA, WA	BLCDT20091117AAX	124.8 km
Yes	KPTV	D12	DT	LIC	PORTLAND, OR	BLANK0000107781	351.2
No	K12BF-D	D12	LD	LIC	ARDENVOIR, WA	BLDTV20120619AAZ	210.8
No	K12RD-D	D12	LD	LIC	COULEE CITY, WA	BLDTV20140903AFZ	280.6
Yes	K12LV-D	D12	LD	LIC	DRYDEN, WA	BLDTV20120619AAI	210.5
No	KWVG-LD	D12	LD	LIC	MALAGA, ECT, WA	BLDTV20110222AAE	237.5
No	K12CW-D	D12	LD	LIC	MALOTT WAKEFIELD, WA	BLDTV20110824ACU	234.3
No	K12BE-D	D12	LD	LIC	ORONDO, ECT, WA	BLDTV20120619AAW	226.6
No	K12AV-D	D12	LD	LIC	PATEROS, MANSFIELD, WA	BLDTV20120618ABW	223.7
No	K12CV-D	D12	LD	LIC	RIVERSIDE, WA	BLDTV20110824ACX	245.4
Yes	KUSE-LD	D12	LD	LIC	SEATTLE, WA	BLANK0000117993	145.8
No	K12CX-D	D12	LD	LIC	TONASKET, WA	BLDTV20120131ADO	253.4
No	K12BA-D	D12	LD	LIC	WINTHROP-TWISP, WA	BLDTV20120123AFV	204.7
Yes	KCPQ	D13	DT	LIC	TACOMA, WA	BLANK0000126148	125.9
Yes	KCPQ	D13	DT	APP	TACOMA, WA	BLANK0000133653	124.8

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D12
Mask: Full Service
Latitude: 48 40 49.40 N (NAD83)
Longitude: 122 50 26.40 W
Height AMSL: 722.0 m
HAAT: 0.0 m
Peak ERP: 3.00 kW
Antenna: ATC CWS PATTERN 0.0 deg
Elev Pattn: ATC TWO BAY
Elec Tilt: 1.00

48.0 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	3.00 kW	721.0 m	83.1 km
45.0	2.74	722.0	82.4
90.0	2.82	672.1	81.1
135.0	1.25	638.9	73.3
180.0	1.03	686.1	73.0
225.0	1.22	636.7	73.0
270.0	2.82	699.0	82.0
315.0	2.74	716.0	82.2

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 686 m

**Proposal 21.00 dBu contour crosses Canadian border, coordination required

Distance to Canadian border: 15.6 km

Distance to Mexican border: 1843.9 km

Conditions at FCC monitoring station: Ferndale WA

Bearing: 34.2 degrees Distance: 37.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

Bearing: 117.7 degrees Distance: 1681.2 km

Study cell size: 0.50 km

Profile point spacing: 0.10 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

----- Below is IX received by proposal BNPDVL20090825AAU -----

Proposal receives 4.31% interference from scenario 1
Proposal receives 4.31% interference from scenario 2

No IX check failures found.

The foregoing was prepared on behalf of Mount Wilson FM Broadcasters, Inc. by Clarence M. Beverage of Communications Technologies, Inc., Medford, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. The statements herein are true and correct of his own knowledge, except such statements made on information and belief, and as to these statements he believes them to be true and correct.



Clarence M. Beverage
for Communications Technologies, Inc.
Medford, New Jersey
November 27, 2021