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## COVINGTON & BURLING

1201 PENNSYLVANIA AVENUE NW WASHINGTON, DC  
WASHINGTON, DC 20004-2401 NEW YORK  
TEL 202.662.6000 LONDON  
FAX 202.662.6291 BRUSSELS  
WWW.COV.COM SAN FRANCISCO

WILLIAM H. FITZ  
TEL 202.662.5120  
FAX 202.778.5120  
WFITZ@COV.COM

August 23, 2001

**RECEIVED**

AUG 23 2001

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

**BY HAND**

Ms. Magalie Roman Salas  
Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
12<sup>th</sup> St. Lobby, Counter TW-A325  
Washington, DC 20554

Attn: Hossein Hashemzadeh, Chief LPTV Branch  
Video Services Division, Mass Media Bureau

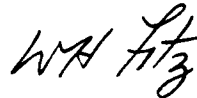
**K45CT, Hilo, HI  
Facility ID 34446  
File No. BMJPTT-20000824AEG  
Amendment to Permit Removal from Auction No. 81**

Dear Ms. Salas:

Submitted herewith on behalf of Raycom National, Inc., applicant for major modification to the facilities of KFVE's TV Translator K45CT at Hilo, Hawaii, are an original and four copies of an amendment to the application. The amendment is being filed to permit removal of the application from Auction 81.

Questions concerning this application may be directed to the undersigned.

Respectfully, yours,



William H. Fitz  
Attorney for Raycom National, Inc.

Enclosures

# Section III - Engineering

## TECHNICAL SPECIFICATIONS

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

K45CT, Hilo, HI

### TECH BOX

BMJPTT-20000824AEG

1. Channel: 45

2. Frequency Offset

☐ No offset

☐ Zero offset

☐ Plus offset

☒ Minus offset

3. Translator Input Channel No. (microwave)

4. Primary station proposed to be rebroadcast:

Call Sign	City	State	Channel
KFVE	Honolulu	HI	5

5. Antenna Location Coordinates: (NAD 27)

19° 43' 51" ☒ N ☐ S Latitude  
155° 04' 11" ☐ E ☒ W Longitude

6. Antenna Structure Registration Number: \_\_\_\_\_

☐ Not applicable

☒ FAA Notification Filed with FAA

7. Antenna Location Site Elevation Above Mean Sea Level: 2 meters

8. Overall Tower Height Above Ground Level: 43 meters

9. Height of Radiation Center Above Ground Level: 38 meters

10. Maximum Effective Radiated Power (ERP) Towards Radio Horizon: 150 kW

11. Maximum ERP in any Horizontal and Vertical Angle: 150 kW

Waiver using OET-69 procedures with respect to Hilo (channel 44) applications. Furthermore, station K45CT agrees to accept any interference received from the proposed (channel 44) Hilo applications.

12. Transmitting Antenna: ☐ Non directional ☒ Directional "Off-the-shelf" ☐ Directional composite

Manufacturer AND	Model ALP16M2-HSW-45
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Directional Antenna Relative Field Values:

Rotation: 240° ☐ No rotation ☐ N/A (Nondirectional)

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0	1.000	60	0.990	120	0.680	180	0.241	240	0.680	300	0.990
10	0.985	70	0.997	130	0.605	190	0.253	250	0.758	310	0.959
20	0.951	80	0.975	140	0.510	200	0.302	260	0.845	320	0.929
30	0.925	90	0.922	150	0.397	210	0.397	270	0.922	330	0.925
40	0.929	100	0.845	160	0.302	220	0.510	280	0.975	340	0.951
50	0.959	110	0.758	170	0.253	230	0.605	290	0.997	350	0.985
Additional Azimuths											

**NOTE:** In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

**CERTIFICATION**

13. **Interference.** The proposed facility complies with all of the following applicable rule sections. Check all those that apply.

☐ Yes ☐ No

See Explanation  
in Exhibit No.

**TV broadcast analog system protection.**

- a. ☐ 47 C.F.R. Section 74.705.

**Digital TV station protection.**

- b. ☐ 47 C.F.R. Section 74.706.

**Low Power TV and TV translator station protection.**

- c. ☐ 47 C.F.R. Section 74.707.

14. **Environmental Protection Act.** The proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (*i.e.*, the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine RF compliance. An **Exhibit is required.**

☐ Yes ☐ No

See Explanation  
in Exhibit No.

Exhibit No.

By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.

**PREPARER'S CERTIFICATION ON PAGE 6 MUST BE COMPLETED AND SIGNED.**

TECHNICAL EXHIBIT  
MINOR AMENDMENT TO THE APPLICATION  
FOR CONSTRUCTION PERMIT  
LPTV STATION K45CT (FACILITY ID 34446)  
HILO, HAWAII  
CH 45(-) 150 KW (MAX-DA)

Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of an amendment to the pending application for construction permit (BMJPTT-20000824AEG) for low power television station K45CT at Hilo, Hawaii.

Pursuant to the FCC's Public Notice announcing LPTV Auction No. 81 (released May 25, 2001, DA 01-1289), the pending application for channel 45 at Hilo is listed as being mutually exclusive (MX) with numerous other applications (MX Group M88). However, the pending channel 45 application at Hilo is "directly" MX with only the following two (2) pending applications: channel 44, Hilo, HI (BNPTTL-20000828AVJ) and channel 44, Hilo, HI (BNPTTL-20000828AFF). Therefore, the purpose of this instant amendment is to provide an engineering solution that resolves the mutual exclusivity between the two channel 44 Hilo applications.

Specifically, based on consideration of terrain shielding and the provisions of the OET-69 Bulletin as permitted by FCC rules [Section 74.707(e)], it is believed that the pending channel 45 application at Hilo complies with the FCC's interference criteria. Calculations have been made using the procedures outlined in the FCC's OET-69 Bulletin and a 2 square kilometer grid.<sup>1</sup> The output of the OET-69 interference analysis computer program is attached as Figure 1. In addition, the results of these analyses are tabulated below:

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<sup>1</sup>The du Treil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 2 km was employed. An Alpha based processor computer system was employed. The results have been found to be in very close agreement with the results of the FCC implementation of OET Bulletin No. 69.

Study Station	Baseline	Net Population Change/Interference
NEW, CH 44, Hilo, HI (BNPTTL-20000828AVJ)	44,987	0 (0.0%)
NEW, CH 44, Hilo, HI (BNPTTL-20000828AFF)	44,987	0 (0.0%)

As indicated above and on Figure 1, the pending Hilo channel 45 application complies with the FCC's 0.5% "rounding allowance" for such calculations (see paragraph 78 of MM Docket No. 00-10). Therefore, it is believed that the MX situation with respect to the channel 44 Hilo applications is resolved.



Jonathan N. Edwards

du Treil, Lundin & Rackley, Inc.  
201 Fletcher Avenue  
Sarasota, Florida 34237

August 22, 2001

**INTERFERENCE CAUSED BY K45CT**

CELL SIZE : 2.0 km

Using offset in determining thresholds

Per 6th Report &amp; Order and FCC OET-69 Bulletin

\*\*\*\*\*

NEW 19-43-51 155-04-11 44(Z) 100.0 kw 37 m AMSL 50.0 % 74.5 dBu

HILO HI

APP BNPTTL20000828AVJ

Using DEFAULT vertical antenna pattern

Area Pop

within Noise Limited Contour 631.8035 44987

not affected by terrain losses 631.8035 44987

\*\*\*\*\*

K45CT 19-43-51 155-04-11 45(-) 150.0 kw-DA 40 m AMSL 10.0 % 74.6

HILO HI

APP BMJPTT20000824AEG

1.00 0.99 0.95 0.93 0.93 0.96 0.99 1.00 0.98 0.92 0.85 0.76

0.68 0.61 0.51 0.40 0.30 0.25 0.24 0.25 0.30 0.40 0.51 0.61

0.68 0.76 0.85 0.92 0.98 1.00 0.99 0.96 0.93 0.93 0.95 0.99

Ref Az: 240.0

Using DEFAULT vertical antenna pattern

D/U Baseline: -15.00

	Area	Pop
Interference	0	0

\*\*\*\*\*

NEW 19-43-51 155-04-11 44(Z) 100.0 kw 37 m AMSL 50.0 % 74.5 dBu

HILO HI

APP BNPTTL20000828AFF

Using DEFAULT vertical antenna pattern

Area Pop

within Noise Limited Contour 631.8035 44987

not affected by terrain losses 631.8035 44987

\*\*\*\*\*

K45CT 19-43-51 155-04-11 45(-) 150.0 kw-DA 40 m AMSL 10.0 % 74.6

HILO HI

APP BMJPTT20000824AEG

1.00 0.99 0.95 0.93 0.93 0.96 0.99 1.00 0.98 0.92 0.85 0.76

0.68 0.61 0.51 0.40 0.30 0.25 0.24 0.25 0.30 0.40 0.51 0.61

0.68 0.76 0.85 0.92 0.98 1.00 0.99 0.96 0.93 0.93 0.95 0.99

Ref Az: 240.0

Using DEFAULT vertical antenna pattern

D/U Baseline: -15.00

	Area	Pop
Interference	0	0