

# ENGINEERING EXHIBIT

## Application for Digital Television Translator Construction Permit

prepared for

### Hawaii Public Television Foundation

K63BB Naalehu, Etc., Hawaii

Facility ID 26439

Ch. 31 (Digital) 0.2 kW

### Table of Contents

FCC Form 346, Section III (Digital)

#### Exhibit 11

Statement A	Nature of the Proposal - Allocation Considerations
Figure 1	Coverage Contour Comparison
Table 1	Interference Analysis Results Summary

#### Exhibit 12

Statement B	Environmental Considerations
-------------	------------------------------

*This material supplies a "hard copy" of the engineering portions of this application as entered March 29, 2006 for filing electronically. Since the FCC's electronic filing system may be accessed by anyone with the applicant's name and password, and electronic data may otherwise be altered in an unauthorized fashion, we cannot be responsible for changes made subsequent to our entry of this data and related attachments.*

<b>SECTION III - ENGINEERING DATA (Digital)</b>												
<b>TECHNICAL SPECIFICATIONS</b>												
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.												
<b>TECH BOX</b>												
1.	Channel Number: 31											
2.	Translator Input Channel No. : 41											
3.	Primary station proposed to be rebroadcast:											
	Call Sign	City	State	Channel								
	KMEB(TV)	WAILUKU	HI	10								
4.	Antenna Location Coordinates: (NAD 27)											
	Latitude:											
	Degrees 19 Minutes 02 Seconds 48 <input checked="" type="radio"/> North <input type="radio"/> South											
	Longitude:											
	Degrees 155 Minutes 34 Seconds 59 <input checked="" type="radio"/> West <input type="radio"/> East											
5.	Antenna Structure Registration Number:											
	<input checked="" type="checkbox"/> Not Applicable [Exhibit 10] <input type="checkbox"/> Notification filed with FAA											
6.	Antenna Location Site Elevation Above Mean Sea Level: 190.3 meters											
7.	Overall Tower Height Above Ground Level: 6.1 meters											
8.	Height of Radiation Center Above Ground Level: 4.9 meters											
9.	Maximum Effective Radiated Power (ERP): 0.2 kW											
10.	Transmitter Output Power: 0.06 kW											
11.	a. Transmitting Antenna:											
	Before selecting Directional "Off-the-Shelf", refer to "Search for Antenna Information" under <a href="http://svartifoss2.fcc.gov/prod/cdbspubacc/prod/cdbsp_a.htm">CDBS Public Access</a> (http://svartifoss2.fcc.gov/prod/cdbspubacc/prod/cdbsp_a.htm). Make sure that the Standard Pattern is marked Yes and that the relative field values shown match your values. Enter the Manufacturer (Make) and Model exactly as displayed in the Antenna Search.											
	<input type="radio"/> Nondirectional <input checked="" type="radio"/> Directional "Off-the-shelf" <input type="radio"/> Directional composite											
	Manufacturer SCA Model 4DR-4-3HC											
	b. Electrical Beam Tilt: degrees <input checked="" type="checkbox"/> Not Applicable											
	c. Directional Antenna Relative Field Values: <input checked="" type="checkbox"/> N/A (Nondirectional or Directional "Off-the-shelf")											
	Rotation (Degrees): 315 <input type="checkbox"/> No Rotation											
	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
	0		10		20		30		40		50	
	60		70		80		90		100		110	
	120		130		140		150		160		170	
	180		190		200		210		220		230	
	240		250		260		270		280		290	
	300		310		320		330		340		350	
	Additional Azimuths											

Relative Field Polar Plot



**SECTION III PREPARER'S CERTIFICATION**

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name ROBERT J. CLINTON		Relationship to Applicant (e.g., Consulting Engineer) CONSULTANT	
Signature		Date 3/29/2006	
Mailing Address CAVELL, MERTZ & DAVIS, INC. 7839 ASHTON AVENUE			
City MANASSAS		State or Country (if foreign address) VA	Zip Code 20109 - 2883
Telephone Number (include area code) 7033929090		E-Mail Address (if available) BCLINTON@CMDCONSULTING.COM	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

**Exhibits**

**Exhibit 11**

**Description:** EXHIBIT 11 - STATEMENT A

EXHIBIT 11 - STATEMENT A - ALLOCATION CONSIDERATIONS

**Attachment 11**

Description
EXHIBIT 11 - STATEMENT A

**Exhibit 12**

**Description:** EXHIBIT 12 - STATEMENT B

EXHIBIT 12 - STATEMENT B - ENVIRONMENTAL CONSIDERATIONS

**Attachment 12**

Description
EXHIBIT 12 - STATEMENT B

Exhibit 12 - Statement B  
**ENVIRONMENTAL CONSIDERATIONS**  
prepared for  
**Hawaii Public Television Foundation**  
K63BB Naalehu, Etc., Hawaii  
Facility ID 26439  
Ch. 31 (Digital) 0.2 kW

**Introduction**

The instant proposal is not believed to have a significant environmental impact as defined under Section 1.1306 of the Commission's Rules. Consequently, preparation of an Environmental Assessment is not required.

*Hawaii Public Television Foundation* (“*Hawaii PTV*”) proposes to convert television translator station K63BB, Channel 63, Naalehu, Etc., HI, Facility ID 26439 (BLTT-19810803JG) to digital operation on a new channel. A replacement transmitting antenna will be side-mounted on the existing antenna support structure employed by K63BB. No change in structure overall height is necessary to carry out this proposal.

The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of §1.1306 of the FCC Rules. No change in structure height is proposed, thus no change in current structure marking and lighting requirements is anticipated. Therefore, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.

**Human Exposure to Radiofrequency Electromagnetic Field**

The K63BB antenna will continue to be located on the existing structure associated with its current license. The transmitting location is approximately 2 km south of Naalehu on the main island of Hawaii. There are numerous other transmitting facilities at this site area situated on various antenna supporting structures.

*Hawaii PTV* will participate in a radiofrequency (“RF”) electromagnetic field exposure safety program, along with other FCC licensees that utilize the antenna farm. Following construction of the proposed facility, *Hawaii PTV* will conduct RF exposure measurements (and/or detailed

Exhibit 12 - Statement B  
**ENVIRONMENTAL CONSIDERATIONS**  
(page 2 of 2)

calculations) to evaluate the level of RF exposure resulting from the K63BB facility. As necessary, based on these results and considering all emitters, appropriate exposure abatement procedures will be established and followed, in order to comply with the Commission's exposure limits. Such abatement procedures may involve the restriction of access to certain areas and/or facility modifications to reduce RF levels.

Considering the post-construction measurement and an appropriate abatement program, the general public and workers will not be exposed to RF levels in excess of the Commission's guidelines. RF exposure warning signs will continue to be posted.

**Safety of Tower Workers and the General Public**

With respect to worker safety, authorized personnel will be trained and/or supervised as necessary for access to any "controlled" areas. A site exposure policy will be employed protecting maintenance workers from excessive exposure when work must be performed on the tower in areas where high RF levels may be present. Such protective measures may include, but will not be limited to, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when work or inspections must be performed in areas where the exposure guidelines will be exceeded. RF exposure measurements may also be undertaken to establish the bounds of safe working areas. *Hawaii PTV* will coordinate exposure procedures with all pertinent stations.

**Conclusion**

Based on the preceding, it is believed that the instant proposal may be categorically excluded from environmental processing under Section 1.1306 of the Rules, hence preparation of an Environmental Assessment is not required.