

ENGINEERING EXHIBIT

Temporary Freeze Lift Filing Window

Application for Construction Permit

LeSEA Broadcasting of St. Croix, Inc.

WCVI-TV Christiansted, VI

Facility ID. 83304

Ch. 23 23.7 kW (H) 130 m

The transmission facility of LeSEA Broadcasting of St. Croix, Inc. (WCVI-TV, Facility ID 83304) suffered major damage during the passage of Hurricane Maria on 20 September 2017. LeSEA proposes to rebuild and expand the facility as permitted in the Temporary Freeze Lift Filing Window.

The proposed Channel 23 operation will employ a new side-mount antenna, replacing the existing antenna which was destroyed. The Antenna Structure Registration is 1001716. There will be no change in overall structure height. The antenna height above average terrain was corrected to agree with the *TVStudy* calculation.

The antenna is a horizontally polarized directional PSI model PSILPD16NC-23. LeSEA proposes to operate WCVI-TV with an effective radiated power of 23.7 kW (H) at 130 m above average terrain.

As shown in the *TVStudy* analysis exhibit, the proposal complies with interference protection requirements based on a cell size of 2.0 km and profile point spacing of 1.0 km.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the FCC's OET Bulletin Number 65. Based on equation 10 and considering 10 percent antenna relative field in downward elevations, the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 60 $\mu\text{W}/\text{cm}^2$, which is 17.2 percent of the general population/uncontrolled maximum permitted exposure limit. The antenna support tower is surrounded by an approximately 7.6m x 7.6m secured fence, of 2.4m height.

Prepared by

Larry Vehorn

Director of Engineering

LeSEA Broadcasting