

TECHNICAL EXHIBIT  
CONCERNING HUMAN EXPOSURE TO RF ELECTROMAGNETIC ENERGY  
PREPARED FOR  
STATION WUJA-DT  
CAGUAS, PUERTO RICO  
CH 48 50 KW (MAX-DA) 312 M

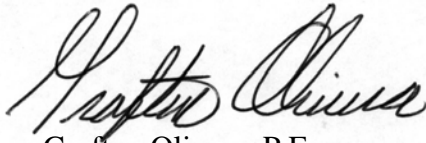
Technical Statement

The proposed facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna is located 31 meters above ground level. The maximum DTV ERP is 50 kW (horizontal polarization). A detailed analysis at every one degree of depression angle (below the horizon), based on the antenna vertical pattern (included in Exhibit 43) shows that the maximum RF exposure would occur at a depression angle of  $74^\circ$ , for vertical plane relative field value of 0.21, where the calculated power density at a point 2 meters above ground level is  $80.9 \text{ uW/cm}^2$ . This is 17.9 % of the FCC's recommended limit of  $451.3 \text{ uW/cm}^2$  for channel 48 for an “uncontrolled” environment. This is well below the MPE for general population / uncontrolled environments. Since there will be no other broadcast users at this site, the proposed facility meets the FCC’s requirements for human exposure to RF energy.

Access to the transmitting site will be restricted and appropriately marked with RFR warning signs. Furthermore, in the event that workers or other authorized personnel enter the restricted area or climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing “accepted” RFR protective clothing or completely turning off the station.

Finally, it is noted that this technical exhibit only addresses the potential for radio frequency electromagnetic field exposure. All other aspects of the

environmental processing analysis will be or already has been provided to the FCC by the tower owner as part of the tower registration process.

A handwritten signature in black ink, appearing to read "Grafton Olivera", is centered on the page. The signature is fluid and cursive.

Grafton Olivera, P.E.

du Treil, Lundin & Rackley, Inc.

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March 14, 2008



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March 14, 2008

Via email ([prcz@naic.edu](mailto:prcz@naic.edu))

Dr. Bob Kerr, Director  
Reinaldo Velez, Spectrum Manager  
National Astronomy and Ionosphere Center  
Arecibo Observatory  
HC3 Box 53995  
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Gentlemen:

On behalf of our client, Television Station WUJA-DT, applicant for post transition digital television station on Channel 48, Caguas, Puerto Rico, in accordance with Section 73.1030 of the FCC Rules, we are hereby notifying you of the proposed facility. The particulars of the proposal are as follows:

Proposed Facility

Geographical coordinates of antenna location (NAD83): 18-16-40.8 / 66-06-31.6  
Antenna height: 31 m AGL; 532 m AMSL  
Antenna directivity: 16.45 dBi (maximum; see attached antenna pattern)  
Antenna orientation: 44° true  
Proposed channel: 48 (674-680 MHz)  
Type of emission: 6M00D7W  
Effective isotropic radiated power: 82.0 kW (maximum)

Please note that the proposed facility is for a digital television station on Channel 48 that will begin operation after the DTV transition date of February 17, 2009. There is currently an analog television station occupying Channel 48 (WVOZ-TV) which will discontinue operating before that date.

Should you find any adverse effect from this proposal, please communicate via email (<mailto:Grafton@dlr.com>), fax (941-329-6031) or regular mail, so appropriate action can be taken.

Very truly yours,

Grafton Olivera, P.E.