Arthur Doak

From: Reilly, Christine A. [christine.reilly@pillsburylaw.com]
Sent: Wednesday, February 03, 2010 10:40 AM
To: Arthur Doak
Cc: Reilly, Christine A.
Subject: UM: KCOU : BLED-20100129ADO
Attachments: KCOU-REV1.png; KCOU_Circular_CP_RF_Study-9.pdf

Good Morning Art,

As a follow up to our conversation yesterday, I have included below the engineers e-mail response to your inquiry. Also attached are the amended exhibits. Please let me know if the additional/new information is sufficient.

My best,
Christine
202-663-8245

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-----Original Message-----

From: Vang, Christian [mailto:Christian.Vang@unt.edu]

Sent: Tuesday, February 02, 2010 6:51 PM

To: Reilly, Christine A.

Subject: Re: UMO : KCOU CP Fulfillment - DRAFT FCC Form 302-FM - FCC Inquiry

Christine,

As per our phone conversation, I have checked the antenna heights as per the CP and the original study drawings for discrepancies.

The center of radiation is 7 meters above the roof. The 10 meters originally referenced is the total height of the Rohn tower section on which the antenna is mounted.

Attached a new exhibit and graph indicating the power density at 7 meters. This changes the theoretical maximum power density quite a bit, but it is still within the limit for general/uncontrolled populations. The maximum is reached at approximately 3.4 meters from the antenna, an area inaccessible to the general population and difficult to reach without special accommodations. Also, the actual power densities I measured at the sight during my visit to KCOU in December 2009 were considerably lower.

Please let me know of any other questions.

Best,

Christian

Christian Vang -- Chief Engineer

RTVF/KNTU-FM - University of North Texas

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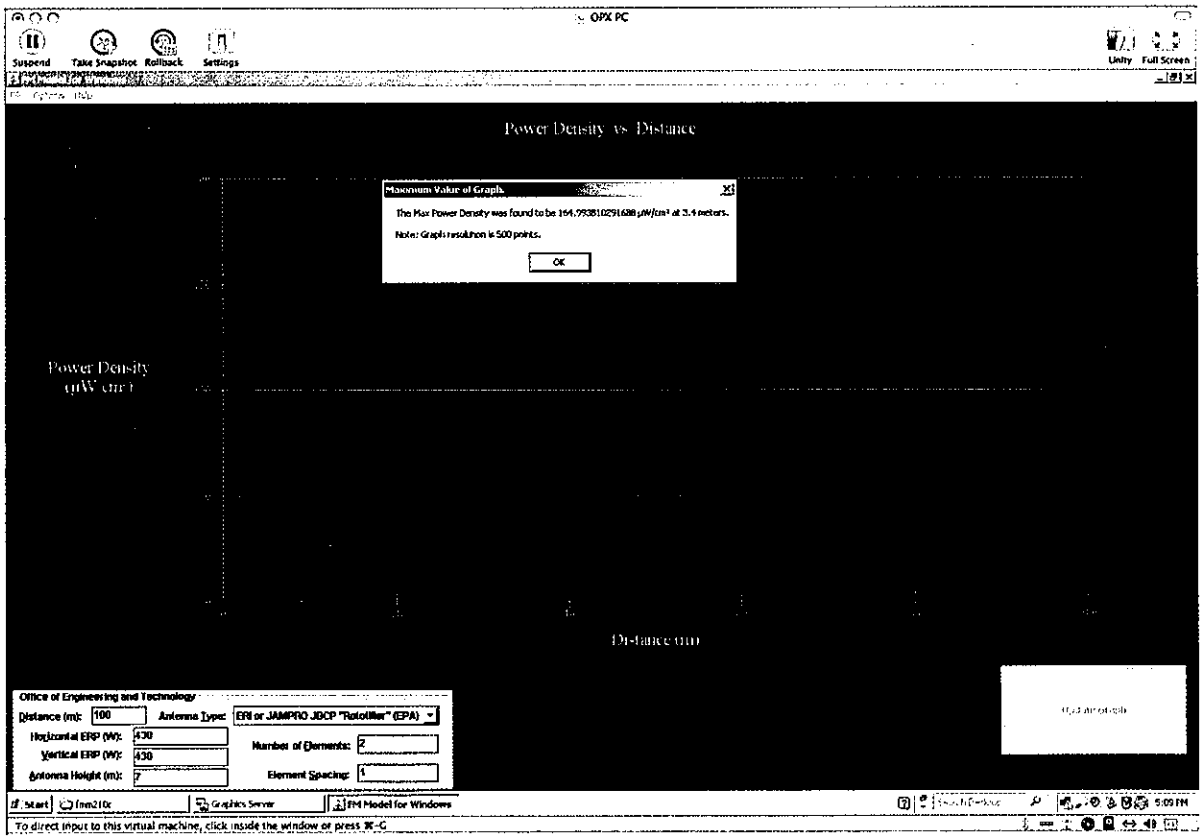
It is required that compliance with the Federal Communication Comission's controlled/occupational RF exposure limit and the uncontrolled/general population RF exposure limit be demonstrated for completion of construction permit BPED-20091028AAA issued to station KCOU-FM, Columbia Missouri. Limits have been defined in OET Bulletin No. 65, Edition 97-01, August 1997 along with related supplemental information provided by the Commission. Specific interest and attention has been given to the RF level on the roof of the building where the KCOU transmitting antenna is mounted as has been requested by the Commission.

According to the FCC FM Model for Windows software, available from the FCC website, KCOU complies with the FCC's exposure limits for both controlled and uncontrolled populations. The theoretical maximum of 164.994 microwatts per centimeter squared is within the Maximum Permissible Exposure limit for general populations and controlled populations as set forth by OET Bulletin No. 65.

A captured image of the graph is included below.

Graph Range: 100 meters
Horizontal ERP (W): 430
Vertical ERP (W): 430
Antenna Height (m) 7 (Radiation Center above Roof)
Antenna Type: ERI or JAMPRO JBCP "Rototiller" (EPA)
Number of Elements: 2
Element Spacing: 1



RF Field strength measurements were performed on the roof and throughout the building on which the antenna structure is mounted as was required by the special conditions in construction permit BPED-20091028AAA. A calibrated Potomac Instruments FIM-71 (serial #: 1015) was used to perform the test. The area of the roof was divided into sections. Each section was measured for 6 minutes. Similarly, each area within the general population areas was divided and measured for 30 minutes as is outlined in the test procedures contained in OET Bulletin No. 65.

The peak level measured at any reasonably accessible location on the roof (a location accessible only to the controlled population, i.e. Maintenance Personnel) was 12.1 microwatts per centimeter squared. This measurement was taken approximately 19 meters from the radiating element. The measured level is well below the maximum limit for both general and controlled populations, and also below the theorized maximum measurement of 164.994 microwatts per centimeter squared.

The peak level measured at any location within the building (areas accessible to the general population) was equal to or lower than .14 microwatts per centimeter squared. Again, well below the maximum exposure limits for both general and controlled populations and well below the theorized level of 164.994 microwatts per centimeter squared.

To further protect the general public as well as workers with access to restricted areas, The following actions have been taken to comply with the special conditions as set forth by the construction permit:

1. The transmitter will be deactivated and "locked-out" when workers are present on the roof.

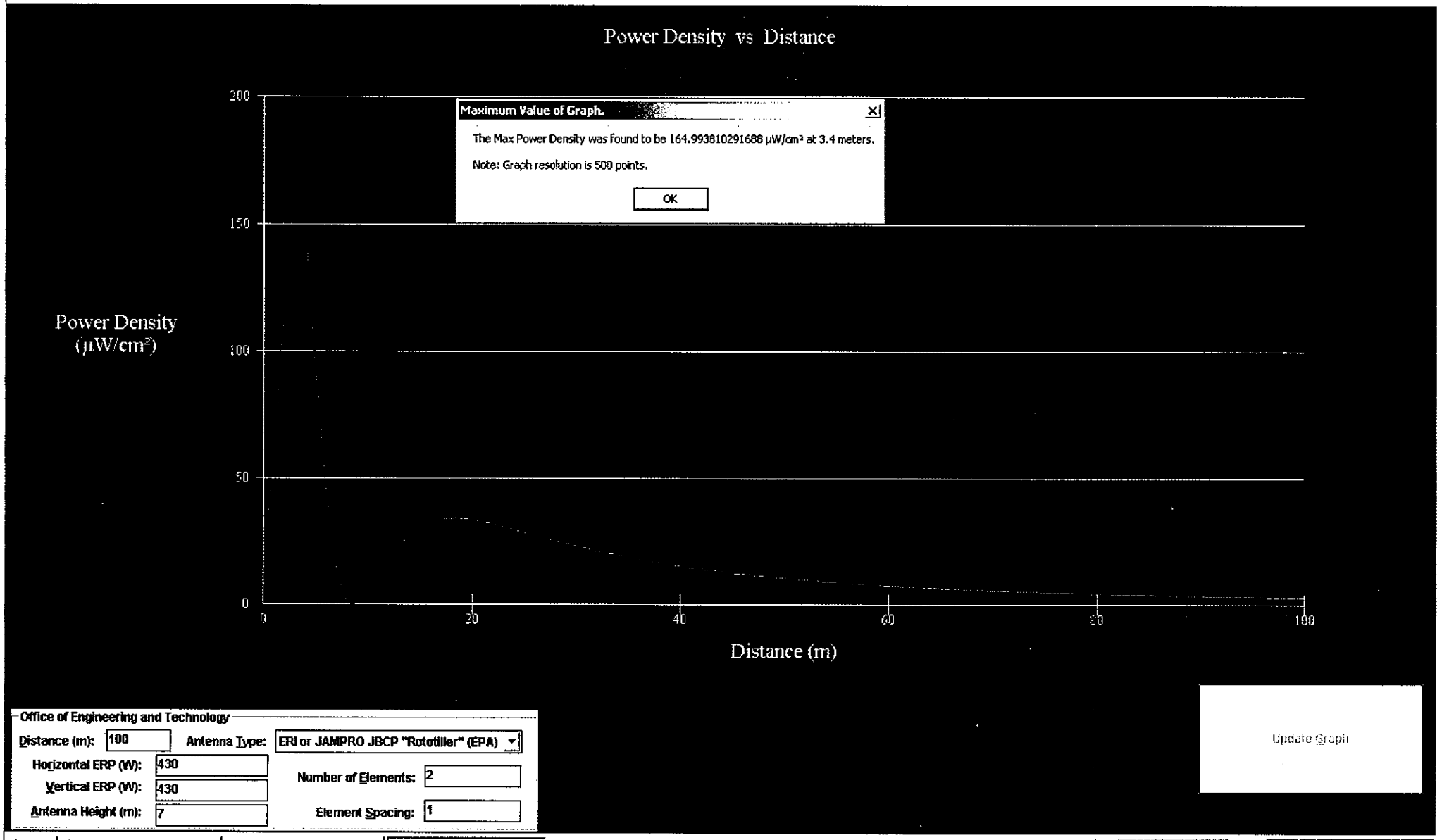
2. The only door allowing roof access has been keyed with a special master key. Access to this key has been restricted to key maintenance personnel and the KCOU staff advisor, an employee of the university.

3. Signs warning of potential RF danger have been posted at doors leading to the roof access point, the door to the roof, and the door leading to the transmitter room.

OPX PC

Suspend Take Snapshot Rollback Settings Unity Full Screen

File Options Help



Office of Engineering and Technology

Distance (m): 100 Antenna Type: ERI or JAMPRO JBCP "Rototiller" (EPA)

Horizontal ERP (W): 430 Number of Elements: 2

Vertical ERP (W): 430

Antenna Height (m): 7 Element Spacing: 1

Update Graph

Start fmm210c Graphics Server FM Model for Windows Search Desktop 5:09 PM

To direct input to this virtual machine, click inside the window or press ⌘-G