Engineering Statement

APPLICATION FOR CONSTRUCTION PERMIT

prepared for

Chicago Public Media

WBEZ(FM) Chicago, IL

Facility ID 66649 Ch. 218B (Auxiliary Antenna) 7.5 kW 377m

Chicago Public Media is the licensee of FM radio station WBEZ(FM), Facility ID 66649, Chicago, IL (see BLED-20101206AAE). WBEZ is licensed to operate at 5.7kW ERP (effective radiated power) using a non-directional antenna at a HAAT (height above average terrain) of 425 meters at the John Hancock Center in Chicago, IL (BLED- 20101206AAE). Chicago Public Media proposes herein to construct an auxiliary antenna facility for WBEZ(FM) for use when the main antenna is unavailable for operation or during maintenance periods.

Nature of the Proposal

The proposed auxiliary antenna will employ a ERI model SHP-1AE antenna. The proposed antenna system will be a single-bay, omnidirectional, circularly-polarized antenna, with a center of radiation located at a height of 377 meters above ground level. The proposed antenna will be side mounted on the West Tower Antenna Structure Registration Number 1009013 of the John Hancock Center in Chicago, IL. As shown in Figure 1, the 60 dBμ contour of the proposed auxiliary antenna facility would not extend beyond that authorized in the WBEZ(FM) license.

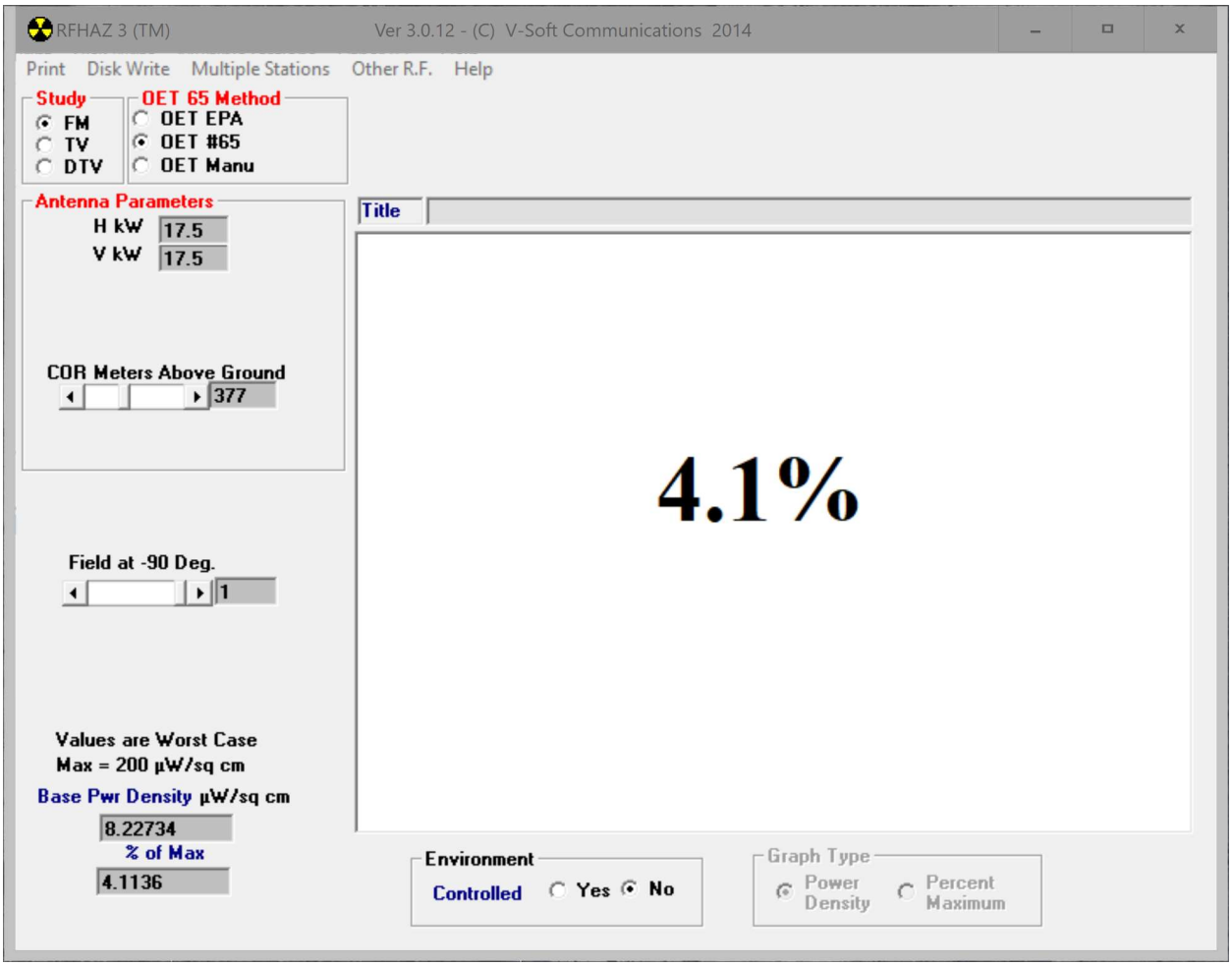
Environmental Considerations

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. Chicago Public Media herein proposes to construct the auxiliary antenna for WBEZ(FM) at an existing authorized tower site. The auxiliary antenna will be located on an existing tower, Antenna Structure Registration Number 1009013. 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. Since no change in overall structure height is proposed, no change in current structure marking and lighting requirements is required.

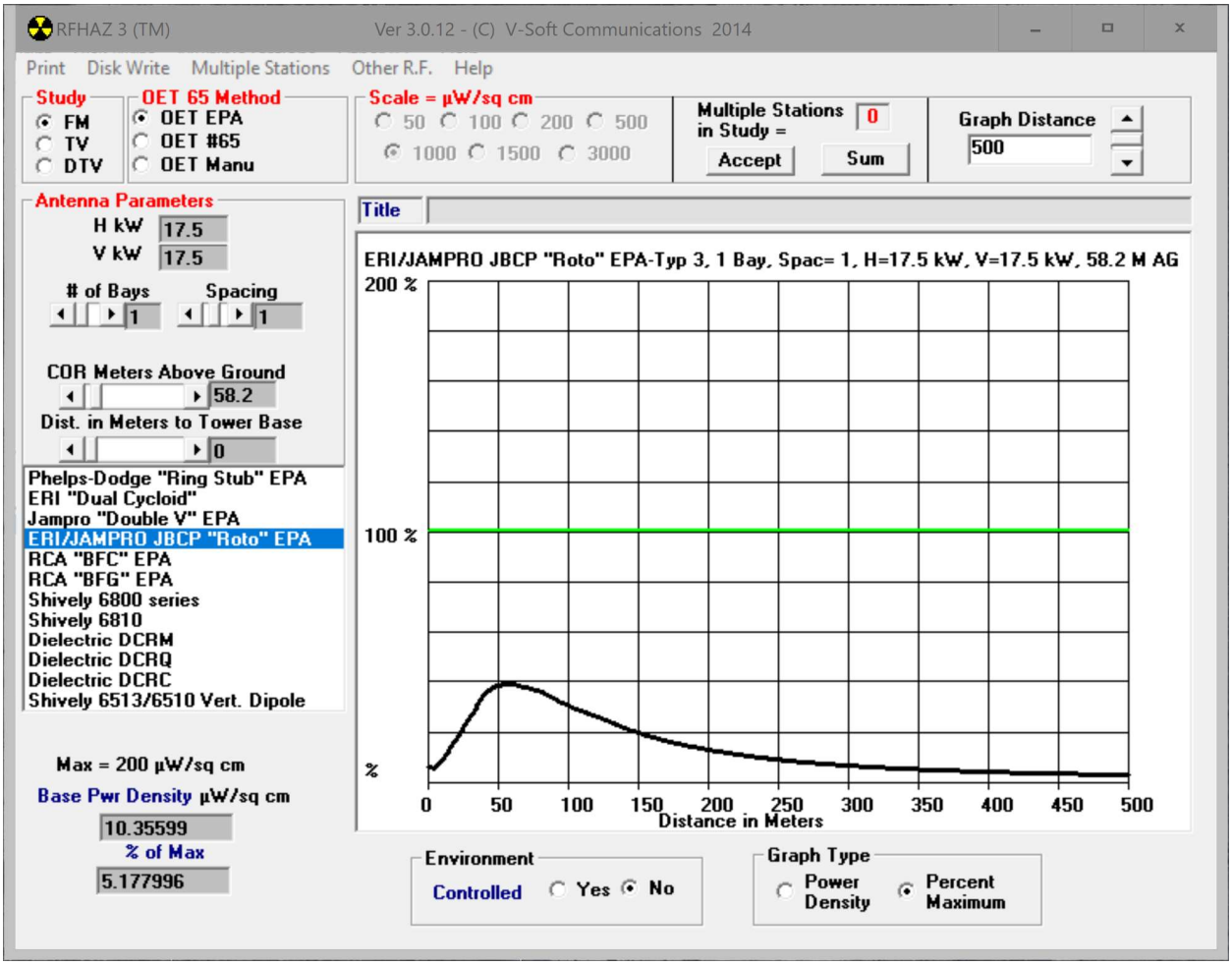
Human Exposure to Radiofrequency Radiation

The proposed operation was evaluated for human exposure to radiofrequency energy using the procedures outlined in the Commission's OET Bulletin No. 65 ("OET 65"). OET 65 describes a means of determining whether a proposed facility exceeds the radiofrequency exposure guidelines adopted in §1.1310. Under present Commission policy, a facility may be presumed to comply with the limits specified in §1.1310 if it satisfies the exposure criteria set forth in OET 65. Based upon that methodology, and as demonstrated in the following, the proposed transmitting system will comply with the cited adopted guidelines. The proposed WBEZ(FM) auxiliary antenna will have a center of radiation

377 meters above ground level with an ERP of 17.5 kilowatts, circularly polarized. The proposed operation was evaluated for human exposure to radiofrequency energy using the procedures outlined in the Commission's OET Bulletin No. 65 (“OET 65”). OET 65 describes a means of determining whether a proposed facility meets the radiofrequency exposure guidelines adopted in §1.1310. Under present Commission policy, a facility may be presumed to comply with the limits specified in §1.1310 if it satisfies the exposure criteria set forth in OET 65. As demonstrated below at worse case in an uncontrolled environment at ground level the WBEZ(FM) auxiliary antenna installation will contribute 8.22734 µW/cm2 or 4.1 percent of the general population/uncontrolled limit at the base of the building.



Also based upon that methodology, and as demonstrated in the following exhibit below, the proposed transmitting system will comply with the cited adopted guidelines. A ERI model SHP-1AE antenna single-bay, circularly-polarized omnidirectional antenna will be used for the proposed WBEZ auxiliary licensed ERI single-bay on the tower. For the purposes of this analysis, it should be noted that this antenna structure is a building-mounted tower, and the antenna will be mounted 58.2 meters above the building roof. The general population/uncontrolled maximum permitted exposure (“MPE”) limit specified in §1.1310 for Channel 218 (91.5 MHz) is 200 µW/cm2. Using the FCC’s FM Model program and an EPA Type 4 antenna it was determined that the proposed facility would contribute a worst-case RF power density of 10.35599 µW/cm2 at two meters above the roof level near the antenna support structure, or 5.18 percent of the general population/uncontrolled limit at the base of the tower.



Safety of Tower Workers and the General Public

As demonstrated herein, excessive levels of RF energy attributable to the proposal will not be caused at publicly accessible areas at the level near the antenna supporting structure. Consequently, members of the general public will not be exposed to RF levels in excess of the Commission's guidelines. Nevertheless, access to the John Hancock Center rooftop, towers and any area which exceeds exposure limits is controlled by building ownership American Tower Corporation and Hearn. Rooftop and tower access will continue to be restricted and controlled through the use of a locked door to the roof of the building. Additionally, appropriate RF exposure warning signs will continue to be posted. The existing site exposure policy will continue to 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. Chicago Public Media will continue to participate in the John Hancock Center's RF exposure safety program along with other FCC licensees operating fulltime and part-time at the John Hancock Center. Chicago Public Media has also contracted RSI Corp. (Radiofrequency Safety International) to

perform RFR measurements following completion of the installation. Chicago Public Media will work with American Tower Corporation to update any RF safety procedures following the construction.