

ENGINEERING STATEMENT
OF
JOHN F.X. BROWNE, P.E.
IN SUPPORT OF
APPLICATION FOR CONSTRUCTION PERMIT
Auxiliary FM Station
WXXI-FM
Rochester, NY

Background

WXXI Public Broadcasting Council (WXXI) is the licensee of WXXI-FM, CH218B, 91.5 MHz (BLED-19801231AN, Facility ID # 74218), serving Rochester, NY. WXXI is herewith applying for a construction permit for an Auxiliary Station and antenna. The auxiliary antenna would also be utilized for IBOC transmissions.

Antenna

The antenna to be used in the construction is a Dielectric HDRH2EFE83R 2-bay circularly polarized, full wavelength spaced, omni-directional radiator having a gain of -0.32 dB. This antenna is interwoven into the 6-bay main antenna and will also be used for the transmission of IBOC digital signals. The radiation center of the antenna (275.9m AMSL) will be 4.1 meters lower than that of the main antenna (an application to modify the new main antenna is being filed simultaneously with the instant application).

ERP

The proposed auxiliary ERP will be 4.4 kW (H & V) considerably lower than the authorized main ERP of 45 kW (H & V). Clearly, the 60 dBu contour of the auxiliary will be completely within the 60 dBu contour of the main transmission facility.

Canadian Coordination

This auxiliary station is within the distance required for Canadian coordination; however, the main station has already been coordinated and licensed. The auxiliary station will have 4.4 kW with a center of radiation 4.1 meters below that of the main WXXI-FM facility (45 kW). By inspection it is apparent that there would be no greater interference caused to any Canadian station.

RFR/Environmental

The changes would not involve any elements which would trigger the requirement for preparation of an Environmental Assessment.

The WXXI-FM Auxiliary antenna will be side-mounted on a tower which supports the antennas of WXXI-TV, WXXI-DT, WXXI-FM and another television station. Other towers on the site support the antennas of several other FM and TV stations.

The ground level radiation from the proposed FM facility is calculated to be 0.0012 mW/cm², which is less than 5% of the MPE for public exposure at this frequency. Thus, no further consideration is required on this multi-station site.

Workers on the tower in the proximity of the proposed FM antenna could be exposed to fields which exceed the MPE for occupational exposure. To ensure a compliant

environment, WXXI will reduce power or cease operation on WXXI-FM, as necessary, when workers are in the vicinity of the antenna or on other nearby structures. Workers on the tower will be encouraged to wear personal RFR monitors while working on the tower or on other nearby structures. Signage is posted warning of the potential RFR hazard on the tower. The tower is enclosed by a locked security fence to limit access to authorized persons only.

Certification

I hereby certify that the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained therein are believed to be true and correct based on personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.

A handwritten signature in black ink, appearing to read "John F.X. Browne", is written over a horizontal line.

John F.X. Browne, P.E.

December 1, 2005