

ENGINEERING STATEMENT

This engineering data contained herein have been prepared on behalf of EASTERN US TAIWAN CULTURE PROMOTION ASSOCIATION, INC., permittee of a new LPFM station on Channel 300 in Middletown, New York, in support of this application for modification of Construction Permit (BNPL-20131114AMS) . The purpose of this application is to specify a new transmitter site location.

It is proposed to mount a single bay circularly polarized FM antenna near the top of an existing 32-meter structure at the new site. The proposed antenna radiation center above ground will be 30.5 meters. Since the antenna height above average terrain will be less than 100 feet, the station will operate with an effective radiated power of 100 watts (H, V). The predicted service contour of the newly proposed facility is plotted on the attached map. It is important to note that the newly proposed site meets all of the mileage separation requirements to all co-channel and adjacent-channel full power, translator and LPFM stations.

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Middletown facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 0.1 kW (H, V), an antenna radiation center 30.5 meters above ground, and assuming a vertical relative field value of 40 percent at the steeper elevation angles for the proposed antenna, maximum power density two meters above ground of 0.0013 mW/cm^2 is calculated to occur in the vicinity of the base of the tower. Since this value is only 0.7 percent of the 0.20 mW/cm^2 reference for uncontrolled environments (areas with public access)

surrounding a facility operating in the FM Band, this proposal may be considered a minor environmental action with respect to public exposure to non-ionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive non-ionizing radiation.

Due to the diminutive height of the existing structure and its proximity to the nearest airport runway, the FAA has not been notified of this application. In addition, and for the same reasons, FCC antenna structure registration is not required.

I declare under penalty of perjury that the foregoing statements and the attached exhibit, which was prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

A handwritten signature in blue ink, appearing to read 'K. T. Fisher', with a stylized, elongated final stroke.

KEVIN T. FISHER

June 5, 2015

**CONTOUR POPULATION
2010 U.S. CENSUS DATA
50,200**



Proposed Site

Latitude: 41-27-58.50 N
Longitude: 074-30-46.70 W
ERP: 0.10 kW
Channel: 294
Frequency: 106.7 MHz
AMSL Height: 272.5 m
Horiz. Pattern: Omni

**60 DBU FCC
CONTOUR**

Proposed Site

Washington Heights

Middletown

**PREDICTED SERVICE CONTOUR
PROPOSED LPFM STATION
CH. 300 - MIDDLETOWN, NY**

Scale 1:110,000

