

This Engineering Statement is in support of the long form application of Susan J. Smith for a construction permit for a translator on FM channel 238 Twisp, Washington, File No. BNPFT-20030314BNA, which specifies a new transmitter location and power output. Applicant has made arrangements with the licensee of LPFM station KTRJ to rebroadcast its programming and utilize its present location. KTRJ is planning relocation to the south, closer to the community of Twisp. Applicant also proposes a change in effective radiated power to 41 watts.

The site is located at coordinates N 48-26-11.3 and W 120-11-29.6. The site elevation is 599 Meters above mean sea level. The antenna is proposed to be mounted on an existing 15.2 meter tower, so that the antenna radiation center is located 7 meters AGL. Applicant proposes to use a Telecom TFLBDI vertically polarized omni-directional dipole antenna. Applicant proposes to use a type accepted transmitter with the power output adjust to account for line loss and antenna gain as to produce an effective radiated power of 41 watts. The calculated HAAT of the site is -306 meters. The HAAT on all of the 12 standard radials are of negative height. Thus the distance to the respective contours use the minimum height of 30 meters. The distance to the 60 dbu protected contour for the proposed is 4.438 kilometers.

Twisp, Washington Channel 238D Allocation Study

The attached spacing study (Exhibit 2) shows the actual distance between the proposed translator site and the location of existing relevant co-channel and 1st, 2nd, and 3rd adjacent channel stations and proposals and those stations on the 53/54 I.F. channel. This study was made using the Commission's minimum distance separation requirements per 47 C.F.R. Section 73.207 and considering the translator as a Class A station. Class D stations were also treated as a Class A stations for the purpose of a direct study between the proposed and existing stations. This way it could be shown that the actual separation is well within compliance of Section 74.1204 regarding protection requirements for FM translators and FM broadcast stations and LP100 stations. The requirements of Section 73.807 were used to determine compliance between the proposed and any LPFM station both existing and proposed. The only two instances the clearance fell below what is required for a Class A station is between the proposed and other Class D stations. It can be shown that there is no overlap of the existing protected 60 dbu of other Class D stations and the respective interfering contours of the proposed.

The site is located approximately 60 KM from the Canadian border. Per Section 74.1235 (2), the predicted 34 dBu interfering contour must not reach into Canada. The maximum distance to the proposed 34 dBu contour on any of the 360 radials is 21.113 km. Thus, the proposed is in compliance with the requirements of this section with respect to Canada.

Applicant certifies that the proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (i.e., the facility will not have a significant environmental impact and complies with the maximum permissible radio frequency electromagnetic exposure limits for controlled and uncontrolled environments. The applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.