

MINOR CHANGE APPLICATION
SINCLAIR TELECABLE, INC.
K238AF FM TRANSLATOR STATION
CH 238D - 95.5 MHZ - 0.240 KW (DA)
SANTA ROSA, CALIFORNIA
March 2006

EXHIBIT C

Radio Frequency Assessment

Since the proposed K237AF facility will be co-located with FM full service stations, FM translators and LPTV stations, the worksheets associated with FCC Form 349 could not be used to demonstrate compliance. Therefore, a study has been made to determine whether this proposal is in compliance with 47 C.F.R. §1.1307 of the Commission's rules and with OET Bulletin #65, dated August 1997 ("Bulletin"), regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. This study considers all nearby contributing stations, specifically K202CT, K300AO, KXFX, K25HI and KTVJ-LP, and utilizes the appropriate formulas contained in the OET Bulletin.²

The proposed K238AF antenna system is to be mounted with a center of radiation of 15.2 meters (50.0 feet) above the ground at the tower location and will operate with an effective radiated power of 0.24 kilowatt in the horizontal and vertical planes (circularly polarized). At 2.0 meters above the ground, the height of an average person, the K238AF translator antenna system will contribute 0.0553 mw/cm². Based on exposure limitations for a controlled environment, 5.5% of the allowable limit is reached at 2.0 meters above the ground at the base of

6) The contribution of the FM facility was calculated using the FM Model program. A single bay EPA dipole antenna was used for calculation purposes.

the tower. For uncontrolled environments, 27.7% of the limit is reached at 2.0 meters above the ground at the base of the tower.

The authorized K202CT antenna system is mounted with a center of radiation of 30.0 meters (112.5 feet) above the ground at the tower location and operates with an effective radiated power of 0.01 kilowatt in the horizontal and vertical planes (circularly polarized). At 2.0 meters above the ground, the height of an average person, the K202CT translator antenna system contributes 0.0005 mw/cm^2 . Based on exposure limitations for a controlled environment, $<0.1\%$ of the allowable limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 0.3% of the limit is reached at 2.0 meters above the ground at the base of the tower.

The authorized K300AO antenna system is mounted with a center of radiation of 58.0 meters (190.3 feet) above the ground at the tower location and operates with an effective radiated power of 0.01 kilowatt in the horizontal and vertical planes (circularly polarized). At 2.0 meters above the ground, the height of an average person, the K300AO translator antenna system contributes 0.0001 mw/cm^2 . Based on exposure limitations for a controlled environment, $<0.1\%$ of the allowable limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 0.1% of the limit is reached at 2.0 meters above the ground at the base of the tower.

The authorized KXFX antenna system is mounted with a center of radiation of 58.0 meters (190.3 feet) above the ground at the tower location and operates with an effective radiated power of 2.2 kilowatts in the horizontal and vertical planes (circularly polarized). At 2.0 meters above the ground, the height of an average person, the KXFX antenna system contributes 0.0282 mw/cm². Based on exposure limitations for a controlled environment, 2.8% of the allowable limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 14.1% of the limit is reached at 2.0 meters above the ground at the base of the tower.

The authorized K25HI Channel 25 antenna system is mounted with its center of radiation at 59.0 meters (193.6 feet) above the ground at the existing tower location and operates with an effective radiated power of 17.0 kilowatt in the horizontal plane. As denoted in OET Bulletin #65, Supplement A, Page 31, the typical UHF antenna system has a downward radiation field of 0.1. As such, the K25HI antenna system radio frequency radiation calculations were made based on an effective radiated power of 0.17 kilowatt. At 2.0 meters above the ground, the height of an average person, the K25HI antenna system contributes 0.0011 mw/cm². Based on exposure limitations for a controlled environment, 0.1% of the allowable ANSI limit is reached at 2.0 meters above the ground. For uncontrolled environments, 0.3% of the ANSI limit is reached at 2.0 meters above the ground at the base of the tower.

The authorized KTVJ-LP Channel 36 antenna system is mounted with its center of radiation at 51.0 meters (167.3 feet) above the ground at the existing tower location and operates

with an effective radiated power of 50.0 kilowatt in the horizontal plane.³ As denoted in OET Bulletin #65, Supplement A, Page 31, the typical UHF antenna system has a downward radiation field of 0.1. As such, the KTVJ-LP antenna system radio frequency radiation calculations were made based on an effective radiated power of 0.50 kilowatt. At 2.0 meters above the ground, the height of an average person, the KTVJ-LP antenna system contributes 0.0043 mw/cm². Based on exposure limitations for a controlled environment, 0.2% of the allowable ANSI limit is reached at 2.0 meters above the ground. For uncontrolled environments, 1.1% of the ANSI limit is reached at 2.0 meters above the ground at the base of the tower.

Combining the contributions of K238AF, K202CT, K300AO, KXFX, K25HI and KTVJ-LP, a total of 43.6% of the limit for uncontrolled exposure is reached at 2.0 meters above the ground at the base of the tower. Since this level for uncontrolled environments is well below the 100% limit defined by the Commission, the proposed K238AF facility is believed to be in compliance with the radio frequency radiation exposure limits as required by the Federal Communications Commission. Further, STI will ensure warning signs are posted in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, STI will reduce the power of the proposed facility or cease operation, in cooperation and coordination with other tower users, as necessary, to protect persons having access to the site, tower or antenna from radio frequency radiation in excess of FCC guidelines.

3) There is an outstanding permit to replace the antenna system for KTVJ-LP. The maximum power and height is the same as that listed for the licensed system. Therefore, the permit was not considered.