

MINOR CHANGE APPLICATION
ASTRAKEL INTERNATIONAL, LTD.
W250AQ FM TRANSLATOR STATION
CH 223D - 92.5 MHZ - 0.250 kW
SPRING LAKE, NORTH CAROLINA
January 2016

EXHIBIT D

Radio Frequency Assessment

This 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 stations, and utilizes the appropriate formulas contained in the Bulletin.¹

The proposed W250AQ antenna system will be mounted with its center of radiation 68.6 meters (225 feet) above the ground at the existing tower location and will operate with an effective radiated power of 0.25 kilowatt in the horizontal and vertical planes (circularly polarized). At 2.0 meters above the ground at the base of the tower, the height of an average person, the W250AQ antenna system will contribute 0.00227 mw/cm².² Based on exposure limitations for a controlled environment, 0.23% of the allowable ANSI limit is reached at 2.0 meters above the ground at the base of the tower. For uncontrolled environments, 1.14% of the ANSI limit is reached at 2.0 meters above the ground at the base of the tower.

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- 1) The FMModel program was used to calculate the FM stations' contributions. The EPA single bay dipole was used unless otherwise stated.
 - 2) This level of field occurs at 13.5 meters out from the base of the tower and is considered worst case.

Since this level for controlled and uncontrolled environments is less than the 5% limit defined by the Commission in §1.1307(b)(3)(i), the proposed W250AQ antenna system facility is believed to be in compliance with the radio frequency radiation exposure limits, as required by the Federal Communications Commission. Further, Astrakel will post warning signs in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, Astrakel will reduce the power of the 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