

MODIFY BNPFT-20030808ADD
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K266AK FM TRANSLATOR STATION
CH 266D - 101.1 MHZ - 0.01 KW
ASPEN, COLORADO
September 2005

EXHIBIT B

Radio Frequency Assessment

Since the proposed K266AK facility is co-located with other FM translators and proposed LPTV stations, 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 K210BO, K202AT, K216BF, K274AT, K269DS⁵, an application for a new FM translator on Channel 241 at Aspen, Colorado ("AP241"), an application for a new FM translator on Channel 257 at Aspen, Colorado ("AP257") and two pending applications for LPTV stations at Aspen, Colorado ("AP25" and "AP26"), and utilizes the appropriate formulas contained in the OET Bulletin.⁶

The proposed K266AK antenna system is to be mounted with a center of radiation of 20.7 meters (68.0 feet) above the ground at the tower location and will operate with an effective radiated power of 0.010 kilowatt in the horizontal and vertical planes (circularly polarized). At two meters, the height of an average person, above the ground at the base of the tower, the

5) Based on its operation on Channel 268D.

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

K266AK translator antenna system will contribute 0.0011 mw.⁷ Based on exposure limitations for a controlled environment, 0.1% of the allowable limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 0.6% of the limit is reached at two meters above the ground at the base of the tower.

The authorized K210BO antenna system is mounted with a center of radiation of 10.0 meters (32.8 feet) above the ground at the tower location and operates with an effective radiated power of 0.013 kilowatt in the vertical plane. At two meters, the height of an average person, above the ground at the base of the tower, the K210BO translator antenna system contributes 0.0065 mw.⁸ Based on exposure limitations for a controlled environment, 0.7% of the allowable limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 3.3% of the limit is reached at two meters above the ground at the base of the tower.

The authorized K202AT antenna system is mounted with a center of radiation of 15.0 meters (49.2 feet) above the ground at the tower location and operates with an effective radiated power of 0.047 kilowatt in the horizontal and vertical planes. At two meters, the height of an average person, above the ground at the base of the tower, the K202AT translator antenna system contributes 0.0112 mw.⁹ Based on exposure limitations for a controlled environment, 1.1% of the allowable limit is reached at two meters above the ground at the base of the tower. For

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- 3) This level of field occurs at 5 meters out from the base of the tower and is considered worst case.
 - 3) This level of field occurs at 2 meters out from the base of the tower and is considered worst case.
 - 3) This level of field occurs at 4 meters out from the base of the tower and is considered worst case.

uncontrolled environments, 5.6% of the limit is reached at two meters above the ground at the base of the tower.

The authorized K216BF antenna system is mounted with a center of radiation of 8.0 meters (26.2 feet) above the ground at the tower location and operates with an effective radiated power of 0.019 kilowatt in the horizontal plane. At two meters, the height of an average person, above the ground at the base of the tower, the K216BF translator antenna system contributes 0.0048 mw.¹⁰ Based on exposure limitations for a controlled environment, 0.5% of the allowable limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 2.4% of the limit is reached at two meters above the ground at the base of the tower.

The authorized K274AT antenna system is mounted with a center of radiation of 12.0 meters (39.3 feet) above the ground at the tower location and operates with an effective radiated power of 0.047 kilowatt in the horizontal and vertical planes. At two meters, the height of an average person, above the ground at the base of the tower, the K274AT translator antenna system contributes 0.0189 mw.¹¹ Based on exposure limitations for a controlled environment, 1.9% of the allowable limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 9.5% of the limit is reached at two meters above the ground at the base of the tower.

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- 3) This level of field occurs at 3 meters out from the base of the tower and is considered worst case.
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The authorized K269DS antenna system is mounted with a center of radiation of 9.0 meters (29.5 feet) above the ground at the tower location and operates with an effective radiated power of 0.019 kilowatt in the horizontal plane. At two meters, the height of an average person, above the ground at the base of the tower, the K269DS translator antenna system contributes 0.0036 mw.¹² Based on exposure limitations for a controlled environment, 0.4% of the allowable limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 1.8% of the limit is reached at two meters above the ground at the base of the tower.

The proposed AP241 antenna system will be mounted with a center of radiation of 7.0 meters (23.0 feet) above the ground at the tower location and operate with an effective radiated power of 0.010 kilowatt in the horizontal plane. At two meters, the height of an average person, above the ground at the base of the tower, the AP241 translator antenna system will contribute 0.0037 mw.¹³ Based on exposure limitations for a controlled environment, 0.4% of the allowable limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 1.9% of the limit is reached at two meters above the ground at the base of the tower.

The proposed AP257 antenna system will be mounted with a center of radiation of 6.0 meters (19.7 feet) above the ground at the tower location and operate with an effective radiated power of 0.010 kilowatt in the horizontal plane. At two meters, the height of an average person,

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- 3) This level of field occurs at 4 meters out from the base of the tower and is considered worst case.
 - 3) This level of field occurs at 3 meters out from the base of the tower and is considered worst case.

above the ground at the base of the tower, the AP257 translator antenna system will contribute 0.0057 mw.¹⁴ Based on exposure limitations for a controlled environment, 0.6% of the allowable limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 2.9% of the limit is reached at two meters above the ground at the base of the tower.

The proposed AP25 Channel 25 LPTV antenna system is to be mounted with its center of radiation 14.0 meters (45.9 feet) above the ground at the existing tower location and operate with an effective radiated power of 10.0 kilowatts 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 AP25 antenna system radio frequency radiation calculations were made based on an effective radiated power of 0.1 kilowatts. At two meters, the height of an average person, above the ground at the base of the tower, the AP25 antenna system contributes 0.0144 mw. Based on exposure limitations for a controlled environment, 0.8% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 4.0% of the ANSI limit is reached at two meters above the ground at the base of the tower.

The proposed AP26 Channel 26 LPTV antenna system will be mounted with its center of radiation 14.0 meters (45.9 feet) above the ground at the existing tower location and operate with an effective radiated power of 10.0 kilowatts in the horizontal plane. As denoted in OET

3) This level of field occurs at 2 meters out from the base of the tower and is considered worst case.

Bulletin #65, Supplement A, Page 31, the typical UHF antenna system has a downward radiation field of 0.1. As such, the AP26 antenna system radio frequency radiation calculations were made based on an effective radiated power of 0.1 kilowatts. At two meters, the height of an average person, above the ground at the base of the tower, the AP26 antenna system contributes 0.0144 mw. Based on exposure limitations for a controlled environment, 0.8% of the allowable ANSI limit is reached at two meters above the ground at the base of the tower. For uncontrolled environments, 4.0% of the ANSI limit is reached at two meters above the ground at the base of the tower.

Combining the contributions of K266AK, K210BO, K202AT, K216BF, K274AT, K269DS¹⁵, AP241, AP257, AP25 and AP26, a total of 36.0% of the limit for uncontrolled exposure is reached at two 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 K266AK facility is believed to be in compliance with the radio frequency radiation exposure limits as required by the Federal Communications Commission. Further, Rodriguez will ensure warning signs are posted in the vicinity of the tower warning of potential radio frequency radiation hazards at the site. In addition, Rodriguez 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.

15) Based on its operation on Channel 268D.