

University of Utah

Proposed Minor Modification of Facility ID 69320, LMS ARN 0000121055, K208GC, Toquerville, UT  
37-03-49.2N, 113-34-27.8W (NAD83), 964 meters RC AMSL, 10 meters AGL  
88.9 MHz, 150 watts H&V DA, Nicom BKG77 with 90 degrees True Orientation

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The instant application is for the purpose of making K208GC into a first adjacent channel fill-in translator for KCHG Cedar City UT.

The facility proposed in the instant application is compliant with 47 CFR Section 74.1204 with respect to co-channel, first-adjacent, second-adjacent and third-adjacent protections and I.F. channel protections of all current applications and authorizations.

The applicant acknowledges first-adjacent channel overlap with KCHG, the originating station. As can be seen in the fill-in translator exhibit map, the proposed f(50,50) 60 dBu contour is entirely encompassed by the f(50,50) 60 dBu service contour of the KCHG licensed facility. 47 CFR Section 74.1203(d) states: "(d) A fill-in FM translator operating on the first, second or third adjacent channel to its primary station's channel will be exempt from the provisions of paragraphs (a) and (b) of this section to the extent that it may cause limited interference to its primary station's signal, *provided* it does not disrupt the existing service of its primary station or cause such interference within the boundaries of the principal community of its primary station." The proposed fill-in translator will serve the community of St. George, UT and is nowhere near the KCHG community of license of Cedar City, UT. No interference to the KCHG community of license by the proposed first-adjacent fill-in translator facility is ever expected.

The applicant acknowledges second-adjacent-channel overlap with Facility ID 94139, K203EY, St. George, UT. According to the FCC CDBS and LMS, the distance between the radiation center of the proposed facility and the radiation center of K203EY is 99 meters. The level existing K203BY signal arriving at the proposed antenna location is 106.4 dBu. Using the Undesired-to-desired method of determining second-adjacent-channel interference, the appropriate interfering contour of the proposed facility is 146.4 dBu. At the proposed power level of 150 watts, the proposed interfering contour extends 4 meters from the antenna. Since, the proposed radiation center is 10 meters above ground level and the proposed interfering contour extends 4 meters from the proposed antenna, then it is impossible for any interference to reach the ground or any listeners. The applicant certifies that there are no habitable structures within the 4 meter area around the antenna support structure on any side. Thus, this application is compliant with the provisions of 73.1204, with respect to second-adjacent-channel interference to K203EY.

The antenna proposed in the instant application is to be located on an existing communications tower, with the equipment to be located in an existing communications shelter. The applicant has proposed an ERP of 150 watts H&V with a height above ground level of 10 meters. Using the FCC Computer Program FM Model, the maximum non-ionizing RF radiation level predicted to occur 2 meters above the ground (to account for average human head height) is 43 microwatts per centimeter squared. This is clearly below both the occupational and general public limits set forth in OET Bulletin 65. Given the complete inaccuracy of the geographic coordinates of the licenses associated with towers at the Webb Hill antenna farm, the applicant cannot identify the actual antennas or locations of authorizations associated with the licenses, making any RF radiation prediction beyond the proposed facility to be an impractical option. The application will reduce power or cease operation to protect workers as required. Therefore, the instant application is categorically excluded from environmental processing.