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KPTK-AM 1090 kHz Seattle, WA

Request for waiver of §73.182(q) “Ratchet Rule”

CBS Radio Holdings Inc. (CBS), licensee of AM station KPTK, Seattle, WA has been issued Construction Permit BP-20071119AEZ, which in its current form authorizes modification of the daytime directional antenna pattern of KPTK. Due to the location of the station’s transmitter site on Maury Island, surrounded by the waters of Puget Sound, traditional Proofs of Performance conducted on this array have been troublesome, due to large portions of the critical radials being over water, and due to field strength readings varying with the changing tides. For these reasons, CBS prefers to conduct a Method of Moments Proof of Performance on the newly authorized daytime antenna pattern.

Commission policy dictates that if the daytime pattern is proven via Method of Moments, the nighttime pattern must also be. In the case of KPTK, this would result in a significant loss of nighttime coverage, as Moment Method Proofs calculate operating directional antenna parameters based on the standard antenna pattern, without the benefit of augmentation. The licensed nighttime directional pattern has two “zero nulls”, which pass over the heavily populated suburbs of Burien, Federal Way and portions of Tacoma. Based on past traditional Proofs of Performance, these nulls have been augmented significantly, to roughly 104 mV/m/km in the case of the 93° radial and 145 mV/m/km in the case of the 163° radial.

CBS proposes a new standard pattern which approximates as closely as possible the envelope of the presently licensed augmented standard pattern, in order to facilitate use of the Method of Moments Proof of Performance rules while maintaining existing nighttime coverage of Burien, Federal Way and Tacoma. No power increase is requested, and the radiation values of the proposed standard pattern do not exceed those of the licensed augmented patten in the direction of the minor lobe at roughly 125° or the null at roughly 160°¹. Waiver of the “Ratchet Rule” provision of §73.82(q) with respect to first-adjacent channel station KFXX, Portland Oregon (both as presently licensed and as authorized in BP-20080717AAW) is believed to be in the public interest, and is respectfully requested.

¹Radiation in the null at 93° is increased due to the physics of the antenna array. In line arrays such as this have nulls which are symmetrical about the tower line, however the augmentation of the nulls of the licensed nighttime directional pattern are asymmetrical.