Critical Hours

The closest point on the daytime 0.1 mV/m contour of co-channel Class A station WPHT, Philadelphia is 2145 miles from Burns at a bearing of 81°. Per the methodology in §73.187, the maximum permissible critical hours radiation toward WPHT is 6772 mV/m/km. As the maximum radiation in any direction from the proposed daytime operation of KBNH is 1500 mV/m/km, the critical hours operation of KBNH will be the same as the daytime operation.

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Critical Hours Radiation Report

Call: KBNH
Freq: 1210 kHz
Burns, OR, US
Hours: D
Lat: 43-33-53 N
Lng: 119-03-37 W
Power: 12.0 kW
Theo RMS: 1071.44 mV/m @ 1km @ 12.0 kW

    Field   Phase Spacing  Orient  Height   Ref    TL   A     B     C     D
#   Ratio   (deg)   (deg)   (deg)   (deg) Swtch Swtch (deg) (deg) (deg) (deg)
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1   1.000     0.0     0.0     0.0    79.7     0     0   0.0   0.0   0.0   0.0
2   0.670   105.0   190.0   265.0    79.7     0     0   0.0   0.0   0.0   0.0

Interpolation factors for 1210 kHz:

     K(500)  = 0.000
     K(1000) = 0.650
     K(1600) = 0.350

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Call: WPHT
Freq: 1210 kHz
PHILADELPHIA, PA, US
Hours: U
Lat: 39-58-46 N
Lng: 074-59-13 W
Power: 50.0 kW
Theo RMS: 387.85 mV/m @ 1km @ 1kW

#	Field Ratio	Phase (deg)	Spacing (deg)	Orient (deg)	Height (deg)	Ref Swtch	TL Swtch	A (deg)	B (deg)	C (deg)	D (deg)
1	1.000	0.0	0.0	0.0	186.0	0	0	0.0	0.0	0.0	0.0

Permissible radiation calculated using FCC 73.190 curves.

Class A Azimuth (deg)	Reference Azimuth (deg)	Distance to 0.1 mV (km) / (mi)	Max Vert Angle (deg)	Max Rad Below Ang (mV/m@1km)	Permiss Radiation (mV/m@1km)	Margin (mV/m@1km)
64.78	76.00	3949.2 / 2454.0	0.0	1143.56	8416.1	7272.5
62.38	77.00	3860.1 / 2398.5	0.0	1139.54	8038.2	6898.7
349.91	78.00	3547.5 / 2204.3	0.0	1135.98	6771.6	5635.6
324.54	79.00	3487.9 / 2167.3	0.0	1132.88	6512.6	5379.7
305.37	80.00	3465.1 / 2153.1	0.0	1130.24	6397.1	5266.8
287.45	81.00	3452.3 / 2145.2	0.0	1128.08	6341.7	5213.6
270.19	82.00	3461.2 / 2150.7	0.0	1126.39	6363.8	5237.4
248.87	83.00	3503.4 / 2176.9	0.0	1125.19	6501.1	5375.9
236.54	84.00	3514.0 / 2183.5	0.0	1124.46	6526.2	5401.7

Class A Azimuth (deg)	Reference Azimuth (deg)	Distance to 0.1 mV (km) / (mi)	K(1000) Value (mV/m@1km)	K(1600) Value (mV/m@1km)	Permiss Radiation (mV/m@1km)
64.78	76.00	3949.2 / 2454.0	10755.85	4070.73	8416.1
62.38	77.00	3860.1 / 2398.5	10269.82	3893.74	8038.2
349.91	78.00	3547.5 / 2204.3	8660.18	3264.15	6771.6
324.54	79.00	3487.9 / 2167.3	8334.44	3129.04	6512.6
305.37	80.00	3465.1 / 2153.1	8189.79	3067.70	6397.1
287.45	81.00	3452.3 / 2145.2	8120.79	3037.70	6341.7
270.19	82.00	3461.2 / 2150.7	8148.06	3050.17	6363.8
248.87	83.00	3503.4 / 2176.9	8319.30	3124.51	6501.1
236.54	84.00	3514.0 / 2183.5	8350.81	3137.51	6526.2