

Channel 6 TV Protection Study

The affected TV Channel 6 TV station that is located within 196 km of KKLK NCE-FM Channel 208 (per Table A, Section 73.525(a)(1)) is KPVI-TV (LIC), Pocatello, ID, BLCT-2335, located at geographical coordinates 42-55-15/112-20-44, operating with 100 kW ERP at a COR AMSL of 2078 meters with a HAAT of 466 meters. KVPI-TV is located 69.38 km from KKLK at a bearing of 158.2 degrees.

In accordance with Section 73.525(e)(i), the distances to the affected Channel 6 TV signal strength contours were determined, and to calculate the related FM interference contours, each affected Channel 6 TV field strength contour, in accordance with Section 73.525(e)(ii), was added to the appropriate undesired-to-desired (U/D) signal ratio (in dB) corresponding to the NCE-FM channel, obtained from Figures 1 and 2, Section 73.599.

The applicant has chosen to use vertically polarized transmissions only, therefore, per Section 73.525(e)(4)(i), the maximum horizontally polarized ERP of 2.083 kW (non-DA), calculated without the adjustment for television receiving antenna directivity, was multiplied by the factor of 40, as the predicted interference area lies entirely outside the limits of a city of 50,000 persons or more. This results in a maximum permissible vertically polarized ERP of 83.3 kW (non-DA). Based on this, the maximum horizontally polarized ERP of 2.083 kW (non-DA) was used in this study to determine the distances to the FM interference contours.

The affected Channel 6 TV field strength contours were determined to be the 54 dBu through 76 dBu. The distances to these contours in the pertinent directions, in 2 dB increments, are tabulated on page 10 of this Exhibit, along with the corresponding U/D signal ratios and the resulting FM interference contours. The F(50,10) FM interference contours and distances are tabulated on page 11 of this Exhibit. The FM interference contour distances listed are for the specific azimuths that intersect each Channel 6 TV contour. Per Section 73.525(e)(2), these contours were plotted on the appropriate US Census County Subdivision Map, contained on page 12 of this Exhibit.

Per Section 73.525(e)(2)(iv), the population was determined using more detailed population data than the uniform distribution of population method, using a computer program that determines population within a specified radius of a set of geographical coordinates and calculates the population within this radius using the centroid block retrieval method (2000 Census). The population within the FM predicted interference area was determined to contain 1,536 persons.

KKLU as modified is therefore in compliance with Section 73.525(c) as the FM predicted interference area contains no more than 3,000 persons. However, in the unlikely event that KKLK causes objectionable interference to KPVI-TV viewers, the applicant will take all necessary steps to eliminate the interference at no cost to the viewer or KPVI-TV.

Channel 6 TV Protection Study, Tabulation of Channel 6 F(50,50) contours

KVPI-TV (LIC), Pocatello, ID, 42-55-15/112-20-44, 100 kW ERP, 2078 meters COR AMSL

Azimuth	HAAT (meters)	54 dBu (km)	56 dBu (km)	58 dBu (km)	60 dBu (km)	62 dBu (km)	64 dBu (km)	66 dBu (km)	68 dBu (km)	70 dBu (km)	72 dBu (km)	74 dBu (km)	76 dBu (km)
300	649.8	110.1	104.3	98.8	93.7	89.0	84.3	79.6	74.6	69.6	64.6	59.9	55.4
310	633.4	109.2	103.5	98.1	93.1	88.4	83.7	78.9	74.0	69.0	64.0	59.3	54.8
320	622.5	108.7	103.0	97.6	92.7	88.0	83.3	78.5	73.5	68.5	63.6	59.0	54.4
330	605.9	107.8	102.2	96.9	92.0	87.4	82.7	77.9	72.9	67.9	63.0	58.4	53.8
340	566.4	105.8	100.3	95.2	90.4	85.8	81.0	76.1	71.1	66.2	61.4	56.8	52.2
350	526.4	103.0	97.8	93.0	88.3	83.7	78.8	73.9	68.8	63.9	59.2	54.6	50.1
0	527.3	103.1	97.9	93.0	88.4	83.7	78.9	73.9	68.9	64.0	59.3	54.7	50.2
10	535.1	103.7	98.4	93.5	88.8	84.1	79.3	74.4	69.4	64.5	59.7	55.2	50.6
20	531.3	103.4	98.2	93.3	88.6	83.9	79.1	74.2	69.2	64.2	59.5	54.9	50.4

CH 6 dBu	U/D for CH 208	FM dBu
54	12.2	66.2
56	10.4	66.4
58	8.6	66.6
60	7.0	67.0
62	5.5	67.5
64	4.4	68.4
66	3.4	69.4
68	2.6	70.6
70	2.0	72.0
72	1.5	73.5
74	1.0	75.0
76	0.6	76.6

Channel 6 TV Protection Study, Tabulation of NCE-FM F(50,10) Interference Contours

KKLU as modified, 43-30-03/112-39-43, 83.3 kW vertical-only polarization (non-DA),  
 2.083 kW (non-DA) maximum horizontally polarized ERP, 2013 meters COR AMSL

Azimuth	HAAT (meters)	FM dBu	FM dBu (km)
0	448.8	66.2	35.6
10	433.8	66.4	34.5
20	419.6	66.4	33.8
30	405.9	66.6	32.7
40	384.3	67.0	30.8
50	385.4	67.5	29.9
60	391.9	68.4	28.6
70	936.1	69.4	27.2
80	401.3	70.6	25.6
90	407.7	72.0	23.8
100	413.8	73.5	22.0
110	426.9	75.0	20.4
120	443.3	75.0	20.9
130	459.1	76.6	19.2
140	480.7	76.6	19.7
150	492.6	76.6	19.9
160	489.7	76.6	19.8
170	487.1	76.6	19.8
180	496.5	76.6	20.0
190	493.3	76.6	19.9
200	484.5	76.6	19.7
210	468.8	75.0	21.5
220	451.0	73.5	23.1
230	439.6	72.0	24.9
240	436.0	70.6	26.8
250	434.9	69.4	28.7
260	418.3	68.4	29.8
270	454.2	68.4	31.2
280	453.8	67.5	33.1
290	454.5	67.0	34.2
300	458.0	66.6	35.2
310	463.2	66.4	35.8
320	463.0	66.4	35.8
330	457.7	66.2	36.0
340	454.3	66.2	35.9
350	452.8	66.2	35.8

**Channel 6 TV Protection Study – Map of CH 6 Contours & FM Predicted Interference Area**

