

AM RADIO 1470
Radio Station KNFL
Tremonton, UT
1470 kHz, 1 kW-D, 0.88 kW-N, DA-N, U

ENGINEERING STATEMENT

This engineering statement, together with the attached figures, has been prepared on behalf of AM Radio 1470, permittee of radio station KNFL, Tremonton, UT (facility ID #129784), in support of a minor change to augment the KNFL nighttime pattern.

AM Radio 1470 also seeks to increase tower height to 102.2°, without top loading, and reduce nighttime power to 880 watts to retain the same RMS as the pattern authorized in CP BMP-20040907AAE. The non-directional daytime inverse field will be 313.527 mV/m. Since this is 97.8% of the theoretical efficiency granted in the outstanding CP, no prohibitive contour overlap will result.

The augmentation of the nighttime pattern is requested at the following central azimuths:

Night:	<u>Azimuth</u>	<u>Span</u>	<u>mV/m</u>
	71.5°T	6°	18.0
	78.0°T	6°	27.4
	302.0°T	10°	21.0

These augmentations will cover pattern distortion resulting from, in the professional opinion of the undersigned, minor re-radiation from power lines and buildings near the KNFL array. While the measured nighttime pattern at 71.5° was just under the standard maximum of 16.8 mV/m, augmentation to 18 mV/m will allow adequate headroom at the monitor point

NIGHTTIME CONSIDERATIONS

There are no 1470 kHz stations within the span of the augmentations which would receive contributions into their RSS calculations as a result of this modified standard pattern. Hence a detailed nighttime study is not pertinent in this case.

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William J. Sitzman
Consulting Radio Engineer

FIGURE 1

N 41° 34' 42"
W 112° 06' 03"
(NAD-27)

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Radio Station KNFL(CP)
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Tower #1 (E) and Tower #2 (W)
are identical uniform cross-
section guyed steel radiators
(no top-loading). For sake of
clarity, this sketch omits
guy wires.

