

EXHIBIT 11 – ENGINEERING STATEMENT

OVERVIEW

Temple University of the Commonwealth System of Higher Education (“Temple”), the licensee of NCE FM translator station W291AP, submits the instant application to modify existing construction permit BPFT-20031202AAE. This application proposes to change only the directional antenna pattern authorized in the construction permit. No change in location, height, maximum effective radiated power, or any other parameter is proposed. The change in the directional antenna pattern is necessary as the actual pattern of the antenna as measured on the manufacturer’s test range exceeds the pattern authorized in the existing construction permit at some azimuths.

MINOR MODIFICATION

The instant application qualifies as a minor modification to the construction permit. The proposed facility will continue to provide 1 mV/m service area to a significant portion (approximately 90%) of the area currently served as shown in the included contour plot. There is no change in channel proposed. As such, the instant application qualifies as a minor change pursuant to 74 CFR §74.1233(a)(1).

DATA SOURCES AND CALCULATIONS

The elevation data, HAAT calculations, contour plots, and other computer-generated exhibits contained in the instant application were produced using the software package ComStudy Pro v.2.2 by RadioSoft. The ComStudy package uses 3-second and 30-second

linearly-interpolated terrain data in accordance with 47 C.F.R. §73.312(d). Contour plots were generated by ComStudy which utilizes algorithms that faithfully reproduce the F(50, 50) and F(50, 10) curves of 47 C.F.R. §73.333 figures 1 and 1a. Data pertaining to other broadcast facilities relevant to the interference study contained herein is from the Commission's Consolidated DataBase System (CDBS) via data files obtained from the Commission by RadioSoft.

COMPLIANCE WITH 47 C.F.R. §74.1235

The proposed facility complies with the terms of Section 74.1235(b) with regard to maximum effective radiated power (MERP). The proposed facility operates with a directional antenna system which yields a maximum of 10 watts ERP circularly-polarized. Below is a tabulation of the relative field, HAAT, MERP allowed per Section 74.1235(b)(1), and proposed ERP for each of the 12 radial azimuths:

<u>Azimuth</u>	<u>Rel. Field</u>	<u>HAAT (m)</u>	<u>MERP</u>	<u>Actual ERP</u>
0°	0.962	341	10	9.25
30°	0.968	269	10	9.37
60°	1.000	302	10	10.00
90°	0.963	381	10	9.27
120°	1.000	343	10	10.00
150°	0.918	361	10	8.43
180°	0.817	426	10	6.67
210°	0.809	427	10	6.54
240°	0.853	385	10	7.28
270°	0.860	402	10	7.40
300°	0.900	416	10	8.10
330°	0.972	371	10	9.45

All other provisions of Section 74.1235 are satisfied as well.

COMPLIANCE WITH 47 C.F.R. §74.1204 – OVERLAP REQUIREMENTS

Exhibit 12 contains a detailed analysis which demonstrates lack of prohibited contour overlap with any other FM broadcast, FM translator, or LPFM authorization in accordance with Section 74.1204.

W291AP Licensed and Proposed 60 dBu Service Contours

