

KOMX(FM), PAMPA, TX**EXHIBIT 7 - NARRATIVE****ENGINEERING STATEMENT**

Pampa Broadcasters, Inc. ("PBI") is licensee of KOMX(FM) (BMLH-20050916AAR, FCC ID number 51419). Due to the co-location of KDRL(FM) (BNPH-20091007AAN, FCC ID number 181071) on the KOMX tower and the installation of a new antenna and combiner to accommodate this co-location, PBI is required to tender the instant application to modify the KOMX license. Simultaneous applications are being tendered to cover the KDRL permit and return co-located KGRO(AM) to direct measurement.

The new antenna is a Jampro JHPC-8R with 8 bays and one-wavelength interbay spacing. The center of radiation of this antenna is 76 meters AGL. The licensed center of radiation was 79 meters AGL. The difference is -3 meters. Pursuant to 47 CFR §73.1690(c)(1) a negative height change of less than 4 meters does not require application on form 301-FM for a new permit. Changes in antenna gain and coax and combiner losses also require a change in the transmitter power output needed to produce the licensed KOMX ERP.

Exhibit 7.1 contains a spurious emissions study meeting the requirements of the KDRL construction permit and 47 CFR §73.317. Exhibit 7.2 is a radio frequency radiation study of the combined KOMX/KDRL operation utilizing the OET's FMModel program. This study shows that the combined operation is not predicted to cause a head-height (2 meters AGL) contribution in excess of the limits contained in 47 CFR §1.1310. Protective fencing continues to prevent exposures in excess of the cited limits due to co-located KGRO(AM). No other non-categorically excluded sources exist on the KOMX tower. Since no tower construction was required to facilitate the co-location of KDRL and the installation of the new antenna, no other potential environmental impacts are known to exist. This exhibit also meets the requirements of the first condition in the KDRL permit relative to any change in the specified antenna. PBI affirms that it will reduce power or suspend operation as necessary to protect tower workers from exposures in excess of the limits.

The spurious emissions measurement was made by Harry Hardisty of Broadcast Works, Inc. He is experienced in making measurements of this kind. The spectrum analyzer was an Agilent N9340B, serial number CN03480818, calibrated in October, 2008. The notch filters used were Microwave Filter Company Model 6367-2 units.

The above and attached information is true and correct as to my knowledge and belief.

May 30, 2011



Gary O. Keener

Spurious Measurements

FM 2-STATION MIXING.xls
020910dra

Located at: **Pampa, Texas**

	<u>Subject Frequency (Mhz)</u>			<u>TPO</u>	<u>Transmitter</u>	<u>Notch Attenuation</u>	<u>Unmodulated Carrier</u>
	<u>Class</u>	<u>Call</u>	<u>Freq</u>	<u>KW</u>	<u>Model and serial</u>	<u>(dB)</u>	<u>"UCL" (dBm)</u>
F1		KOMX	100.3	8.4	Collins 830	39.0	20.0
F2		KDRL	103.3	12.97	RCA BTF 20E	38	20

Frequency Combination (Mhz)	Calculated Spur (Mhz)	Measured Spur (dBm)	Main Carrier Ref (Mhz)	dB down (UCL - Measured Spur)
2F1-F2	97.3	-63.0	F1	83.0
2F2-F1	106.3	-63.0	F1	83.0
2F1+F2	303.9	-61.0	F1	81.0
2F2+F1	306.9	-62	F1	82.0
3F1-F2	197.6	-62.6	F1	82.6
3F2-F1	209.6	-62.4	F1	82.4
3F1+F2	404.2	-63	F1	83.0
3F2+F1	410.2	-63.1	F1	83.1
4F1-F2	297.9	-63.12	F1	83.1
4F2-F1	312.9	-63.5	F1	83.5
4F1+F2	504.5	-65	F1	85.0
4F2+F1	513.5	-63.4	F1	83.4

2F1-F2	97.3	-63.0	F2	83.0
2F2-F1	106.3	-63.0	F2	83.0
2F1+F2	303.9	-61.0	F2	81.0
2F2+F1	306.9	-62.0	F2	82.0
3F1-F2	197.6	-62.6	F2	82.6
3F2-F1	209.6	-62.4	F2	82.4
3F1+F2	404.2	-63.0	F2	83.0
3F2+F1	410.2	-63.1	F2	83.1
4F1-F2	297.9	-63.1	F2	83.1
4F2-F1	312.9	-63.5	F2	83.5
4F1+F2	504.5	-65.0	F2	85.0
4F2+F1	513.5	-63.4	F2	83.4

Must be > 80dB down

Noise Floor (dBm)

-65

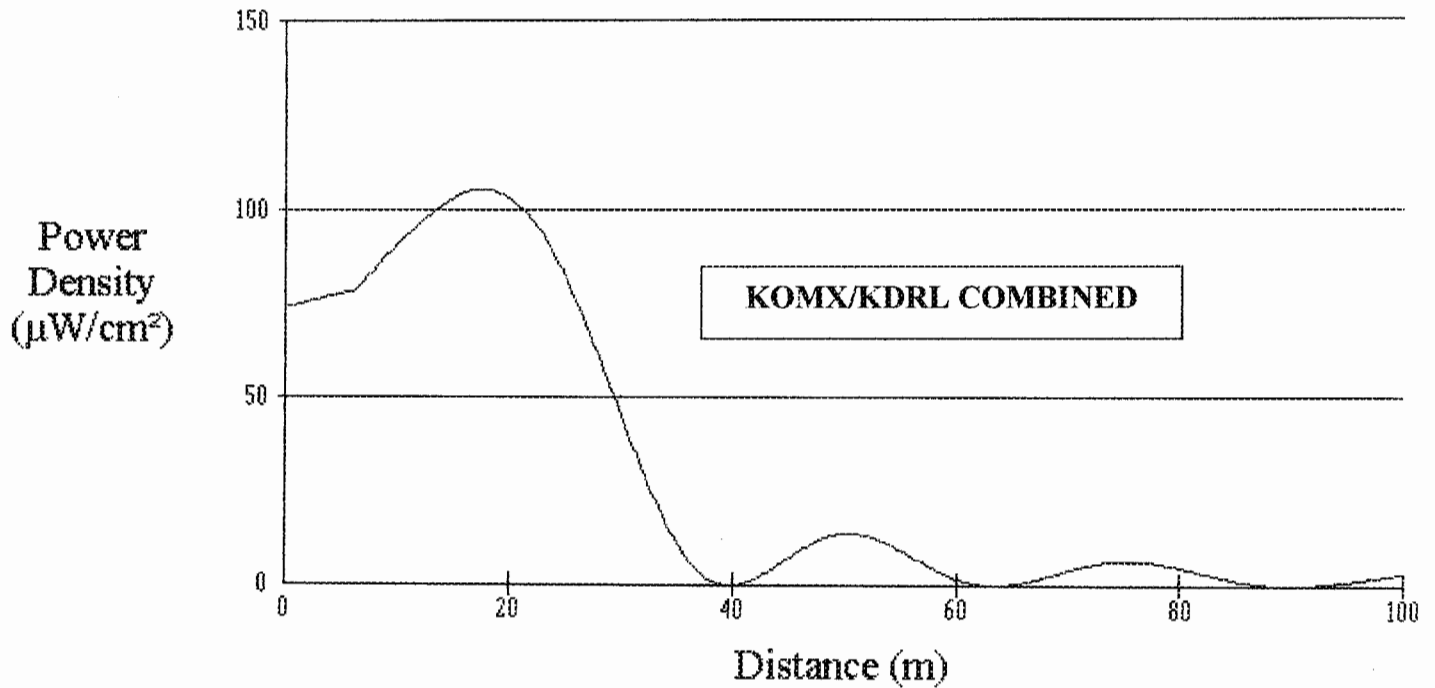
The signals were sampled at the output of the antenna combiner system at its nominal RF output. The measurements were made using a Spectrum Analyzer. Each fundamental frequency was attenuated using Microwave Filter Company model 6367 cavity notch filters tuned to each fundamental. Measured intermodulation products of the shared antenna system were at least 80 dB below the unmodulated carriers of the two stations.

Based on these measurements it is believed the stations are in compliance with 73.317 of the Commission's rules.

Broadcast Works Inc.
(903)-509-2470

Date: **5/24/2011**
Engineer: **Harry Hardisty**

Power Density vs Distance



Office of Engineering and Technology

Distance (m):	100	Antenna Type:	Jampro "Double V" (EPA)
Horizontal ERP (W):	82000	Number of Elements:	8
Vertical ERP (W):	82000	Element Spacing:	1
Antenna Height (m):	74		