du Treil, Lundin & Rackley, Inc.
Consulting Engineers

TECHNICAL EXHIBIT

MEASURED IMPACT OF THE INSTALLATION OF THE WFEF-LD (LPTV) AND WHPB-LP (LPFM) TRANSMITTING ANTENNAS ON THE DIRECTIONAL ANTENNA PATTERNS OF RADIO STATION WDYZ ORLANDO, FLORIDA

990 kHz 50 kW – D 14 kW – N DA-2

September 28, 2016

MEASURED IMPACT OF THE INSTALLATION OF THE WFEF-LD (LPTV) AND WHPB-LP (LPFM) TRANSMITTING ANTENNAS ON THE DIRECTIONAL ANTENNA PATTERNS OF RADIO STATION WDYZ ORLANDO, FLORIDA

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Executive Summary – WFEF-LD (LPTV) and WHPB-LP (LPFM)

Information regarding the measured impact of the installation of a new transmitting antenna for LPTV station WFEF-LD, file number 0000010957, and a new transmitting antenna for LPFM station WHPB-LP, construction permit number BMPL-20160513AFI, on the nighttime and daytime directional antenna patterns of nearby AM station WDYZ is included herein. The antennas and their associated transmission lines were installed on a tower at the WDYZ transmitter site that is detuned at the WDYZ carrier frequency, 990 kilohertz. The tower is not active in the WDYZ antenna system.

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As the WDYZ license was issued pursuant to a directional antenna proof of performance based on field strength measurements, readings were taken before and after construction at the nighttime and daytime monitor points. The measurements were made by the undersigned using Potomac Instruments FIM-41 field strength meter, serial number 1506, which was calibrated by its manufacturer on May 19, 2014.

As can be seen from the before-and-after tabulations of Items 1 and 2, the measured monitor point field strengths were found to be below the maximum values specified on the station license both before and after the new transmitting antennas were installed for both the nighttime and daytime WDYZ directional antenna patterns.

The measurements indicate that there has been no adverse impact. The requirements of Section 1.30002 of the FCC Rules are met.

Ronald D. Rackley, P.E.
du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237
(941) 329 6008
ron@dlr.com

September 28, 2016

Item 1 – WFEF-LD (LPTV) and WHPB-LP (LPFM)

Radio Station WDYZ
Orlando, Florida

990 kHz 50 kW – D 14 kW – N DA-2

Before and After Directional Antenna Parameters and Measured Monitor Point Field Strengths for Nighttime DA

Night-DA			
	FCC Licensed	Observed Before Change 9/08/2016	Observed After Change 9/23/2016
Common Point R (Ohms)	52.5	52.5	52.5
Common Point Current (A)	16.8	16.8	16.8
Antenna Monitor Readings			
Tower 1 Ratio	1.890	1.895	1.890
Tower 1 Phase (Degrees)	+145.0	+144.8	+145.4
Tower 2 Ratio	1.290	1.290	1.290
Tower 2 Phase (Degrees)	+140.0	+139.8	+140.0
Tower 3 Ratio	1.000	1.000	1.000
Tower 3 Phase (Degrees)	0.0	0.0	0.0
Tower 4 Ratio	1.280	1.281	1.285
Tower 4 Phase (Degrees)	-49.0	-49.1	-49.2
Tower 5 Ratio	*	0.087	0.077
Tower 5 Phase (Degrees)	*	-34.7	-36.6
Monitor Point Field Strengths			
13.0 Degrees True	31.1	18.6	17.5
147.0 Degrees True	27.1	26.8	26.3
227.5 Degrees True	11.9	7.1	7.6
297.0 Degrees True	74.3	53.5	51.0
342.0 Degrees True	9.0	7.8	7.7
* Tower 5 (the detuned tower) parameters are for maintenance only.			

Item 2 – WFEF-LD (LPTV) and WHPB-LP (LPFM)

Radio Station WDYZ
Orlando, Florida

990 kHz 50 kW – D 14 kW – N DA-2

Before and After Directional Antenna Parameters and Measured Monitor Point Field Strengths for Daytime DA

Day-DA			
	FCC Licensed	Observed Before Change 9/08/2016	Observed After Change 9/23/2016
Common Point R (Ohms)	52.5	52.5	52.5
Common Point Current (A)	31.6	31.6	31.6
Antenna Monitor Readings			
Tower 2 Ratio	0.530	0.527	0.529
Tower 2 Phase (Degrees)	+18.5	+18.2	+18.8
Tower 3 Ratio	1.000	1.000	1.000
Tower 3 Phase (Degrees)	0.0	0.0	0.0
Monitor Point Field Strengths			
158.0 Degrees True	332.4	222	225
338.0 Degrees True	161.6	125	128