



**STATEMENT OF JOHN E. HIDLE, P.E.
IN SUPPORT OF AN APPLICATION FOR
MODIFICATION OF CONSTRUCTION PERMIT
BPCDT-20110525ACX
WPVI-TV - PHILADELPHIA, PENNSYLVANIA
CH. 6 - 34.0 kW - 330 meters HAAT**

Prepared for: ABC, INC.

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a Licensed Professional Engineer in the Commonwealth of Virginia, License No. 7418, and in the State of New York, License No. 63418.

GENERAL

This office has been authorized by ABC, INC., Licensee of WPVI-TV, channel 6, Philadelphia, Pennsylvania, to prepare this statement, FCC Form 301, Section III-D, and the associated exhibits, in support of an application seeking to modify its construction permit, BPCDT-20110525ACX. It is proposed herein only to reduce WPVI-TV's authorized Effective Radiated Power (ERP) from 37.6 kW to 34.0 kW. No other change is proposed.

AUTHORIZED FACILITY

WPVI-TV's current authorization permits a facility with an ERP of 37.6 kW at a Height Above Average Terrain (HAAT) of 330 meters. During the implementation of its construction permit the permittee determined that the rated power output of its existing transmitter is not sufficient to produce the authorized ERP of 37.6 kW, therefore the permittee herein seeks authorization of a slight decrease in ERP to 34.0 kW.

AUTHORIZED OMNI-DIRECTIONAL ANTENNA

WPVI-TV has installed a new Dielectric Model CAR-O3FMB-6/18H-1 channel 6 omni-directional circularly polarized antenna on the tower bearing registration number 1035474, with its radiation center line located 320.7 meters above ground level, and 330 meters above average terrain. The authorized antenna employs an electrical beam-tilt of 1 degree below the horizontal plane. The manufacturer's elevation plane radiation pattern is shown in exhibits 1 and 2, and is tabulated in exhibit 3.

ALLOCATION CONSIDERATIONS

WPVI-TV's current authorization, BPCDT-20110525ACX, that was granted on June 13, 2011, allows a facility with an ERP of 37.6 kW at a Height Above Average Terrain (HAAT) of 330 meters. WPVI-TV herein proposes only to reduce its authorized ERP from 37.6 kW to 34.0 kW. Since no other change is proposed, based on previous interference analyses, it is evident that such a reduction in ERP is not expected to result in any increase in interference to any other authorized broadcast or non-broadcast facility.

WPVI-TV previously has demonstrated that the facilities authorized by BPCDT-20110525ACX will have effectively no impact on the directional antenna radiation pattern of AM radio station WNWR. See FCC File No. BPCDT-20110525ACX, Engineering Statement at 4; Opposition to Petition for Rescission and Informal Objection at Exhibit C (Technical Statement). Based on this analysis, it is evident that the proposed modification, which seeks only to reduce the authorized power for WPVI-TV, will have effectively no impact on the directional antenna radiation pattern of WNWR.

PREDICTED COVERAGE CONTOURS

The predicted coverage contours were calculated in accordance with the method described in Section 73.684 of the Rules, utilizing the appropriate F(50,90) propagation curves (47 CFR Section 73.699, Figure 9), power, and antenna height above average terrain as determined for each profile radial. The average terrain on the eight cardinal radials from 3 kilometers to 16 kilometers from the site, was determined using the National Geophysical Data Center Thirty Second Point Database (TPG-0050) as prescribed in the FCC Rules. The antenna site elevation and coordinates were determined from FCC antenna registration data. Exhibit 4 contains the predicted DTV Noise Limited (28 dBu) contour and the predicted principal community (35 dBu) contour. The predicted 35 dBu contour entirely encompasses the principal community, Philadelphia, Pennsylvania.

BLANKETING AND INTERMODULATION INTERFERENCE

Other broadcast and non-broadcast technical facilities are co-located with, or located within 10 km of the proposed WPVI-TV transmitter/antenna site. The applicant recognizes its responsibility to remedy complaints of interference which might result from this proposal in accordance with applicable Rules.

RADIO FREQUENCY IMPACT

Effective October 15, 1997 the FCC adopted modified guidelines and procedures for evaluating environmental effects of radio frequency (RF) emissions. The guidelines are generally based on recommendations by the National Council on Radiation Protection and Measurements (NCRP) in NCRP Report No. 86 (1986) and by the American National

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Standards Institute and the Institute of Electrical and Electronic Engineers, LLC (IEEE) in ANSI/IEEE C95.1-1992 (IEEE C95.1-1991). The guidelines establish maximum permissible exposure (MPE) levels for both occupational or “controlled” environments, as well as for “uncontrolled” environments such that apply in cases that could affect the general public. The FCC Office of Engineering and Technology’s technical bulletin No. 65 entitled, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields" (DA 04-319, February 6, 2004), provides assistance in the determination of whether FCC-regulated transmitting facilities, operations or devices comply with guideline limits for human exposure to radio frequency electromagnetic fields as adopted by the Commission in 1996. Bulletin No. 65 provides the technical data required to evaluate compliance with the FCC’s policies and guidelines.

The FCC’s Maximum Permitted Exposure (MPE) level established for “uncontrolled” environments is 0.2 milliwatts per centimeter squared (mW/cm^2) when applied to broadcast facilities operating between 30 MHz and 300 MHz, and for broadcast facilities operating between 300 MHz and 1500 MHz, primarily UHF TV stations, the MPE is derived from the formula, $(\text{frequency (MHz)}/1500)$. The MPE level that is established for occupational, or “controlled” environments is 1.0 milliwatts per centimeter squared (mW/cm^2) for operations between 30 MHz and 300 MHz, and for broadcast stations operating between 300 MHz and 1500 MHz the MPE is derived from the formula, $(\text{frequency (MHz)}/300)$.

The predicted emissions of WPVI-TV operating on channel 6 must be considered, in addition to predicted emissions from any other proposed or existing stations at the site. For WPVI-TV, which will operate on television channel 6 (82-88 MHz), the MPE is 0.200

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milliwatts per centimeter squared (mW/cm^2) in an “uncontrolled” environment and $1.000 \text{ mW}/\text{cm}^2$ in a “controlled” environment. The proposed WPVI-TV facility will operate with a maximum ERP of 34.0 kW using a circularly polarized omni-directional transmitting antenna with a centerline height of 320.7 meters above ground level (AGL). Considering the proposed antenna’s vertical plane relative field factor of 0.15 the WPVI-TV facility is predicted to produce a power density at two meters above ground level of $0.00050 \text{ mW}/\text{cm}^2$, which is 0.25% of the FCC guideline value for an “uncontrolled” environment, and 0.050% of the FCC’s guideline value for “controlled” environments. (See Appendix A)

There are three other full-service DTV stations, and eight FM radio stations that are authorized to be located at the site, or within the relevant proximity of 315 meters. The total percentage of the ANSI value at the proposed site, including the cumulative radiation based on actual field factors, from all post-transition broadcast stations within the relevant proximity is 14.05% of the limit for “uncontrolled” environments, and 2.81% of the limit for “controlled” environments.

OCCUPATIONAL SAFETY

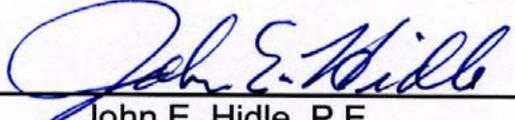
The applicant is committed to the protection of station personnel and/or tower contractors working on the tower support structure, or in the vicinity of the proposed WPVI-TV antenna, by reducing power and/or ceasing operation during times of maintenance of the transmission systems, when necessary, to ensure the proper protection of persons who might be required to perform their assigned tasks in this “controlled” environment.

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SUMMARY

It is submitted that the instant application for modification of construction permit for WPVI-TV seeking to reduce its authorized ERP from 37.6 kW to 34.0 kW, as described herein complies with the Rules, Regulations, and Policies of the Federal Communications Commission. This statement, FCC Form 301, Section III-D, and the attached exhibits were prepared by me, or under my direct supervision, and are believed to be true and correct to the best of my knowledge and belief.

DATED: August 31, 2011



John E. Hidle, P.E.

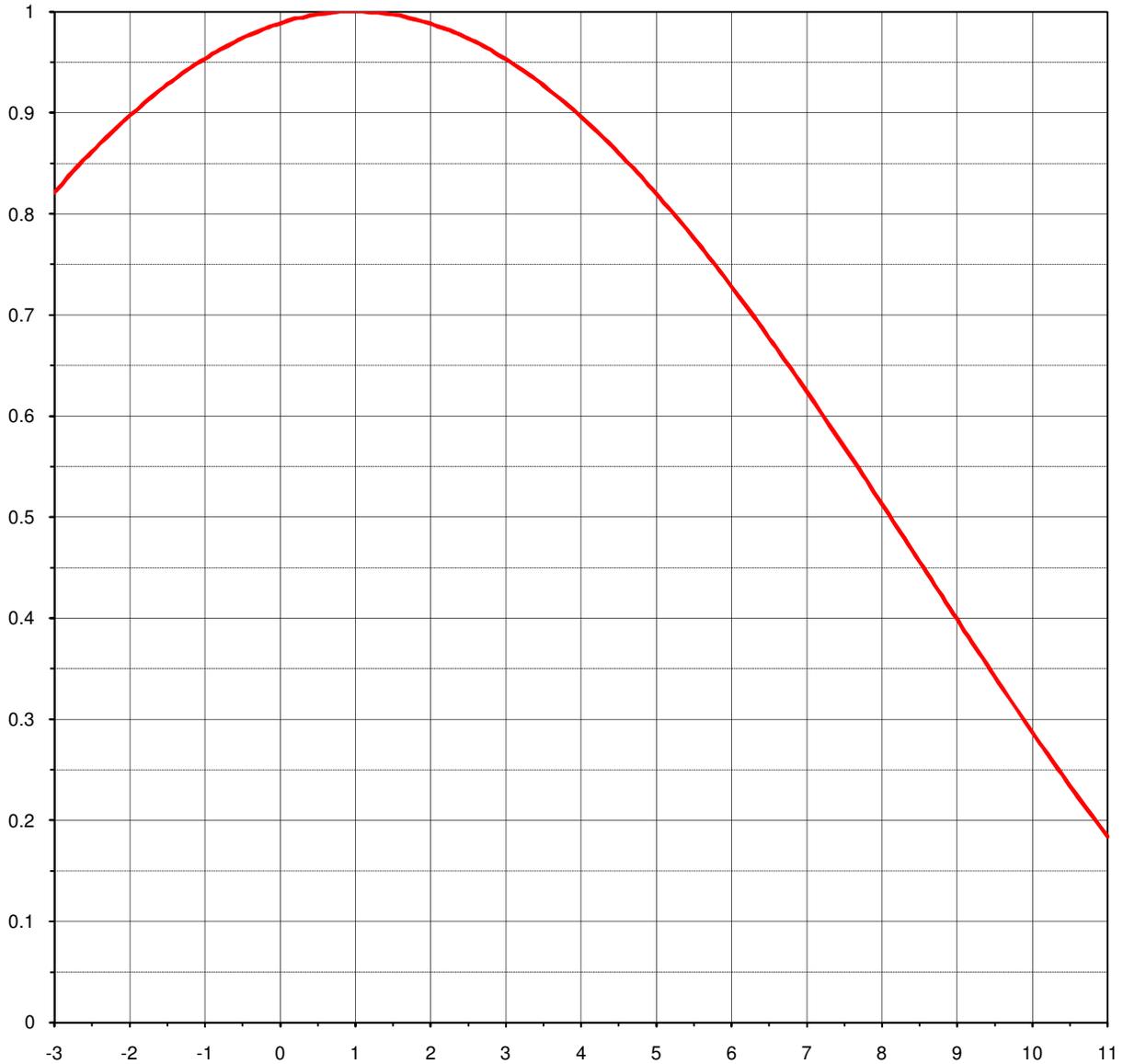




Proposal Number **C-04057** **Exhibit 1**
Date **16-Mar-10**
Call Letters **WPVI-TV** Channel **6**
Location **Philadelphia, PA**
Customer
Antenna Type **CBR-O3FMB-6/18H-1**

ELEVATION PATTERN

RMS Gain at Main Lobe	5.50 (7.40 dB)	Beam Tilt	1.00 deg
RMS Gain at Horizontal	5.40 (7.32 dB)	Frequency	85.00 MHz
Calculated / Measured	Calculated	Drawing #	06C055100



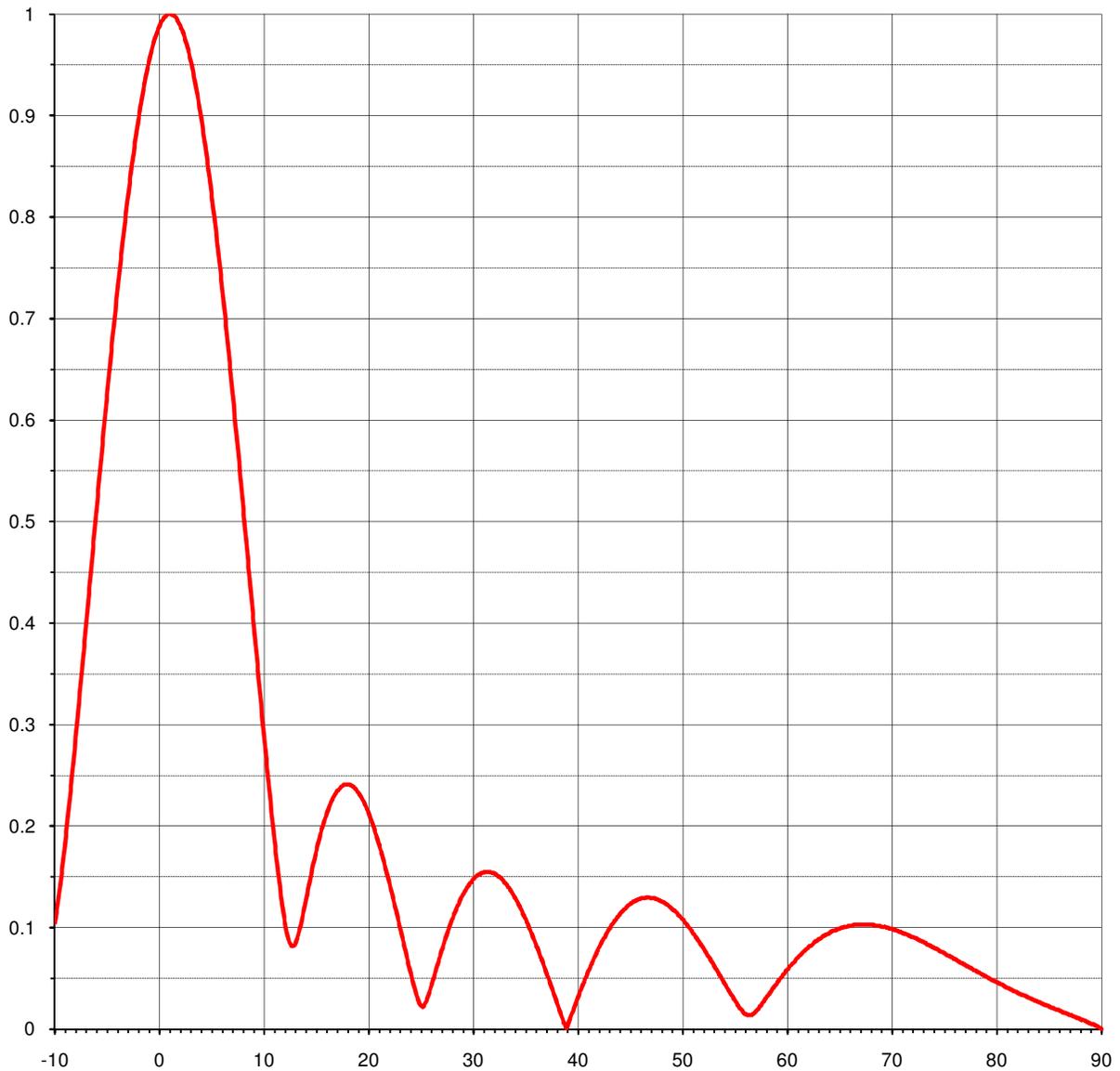
Degrees Below Horizontal



Proposal Number **C-04057** **Exhibit 2**
Date **16-Mar-10**
Call Letters **WPVI-TV** Channel **6**
Location **Philadelphia, PA**
Customer
Antenna Type **CBR-O3FMB-6/18H-1**

ELEVATION PATTERN

RMS Gain at Main Lobe	5.50 (7.40 dB)	Beam Tilt	1.00 deg
RMS Gain at Horizontal	5.40 (7.32 dB)	Frequency	85.00 MHz
Calculated / Measured	Calculated	Drawing #	06C055100-90





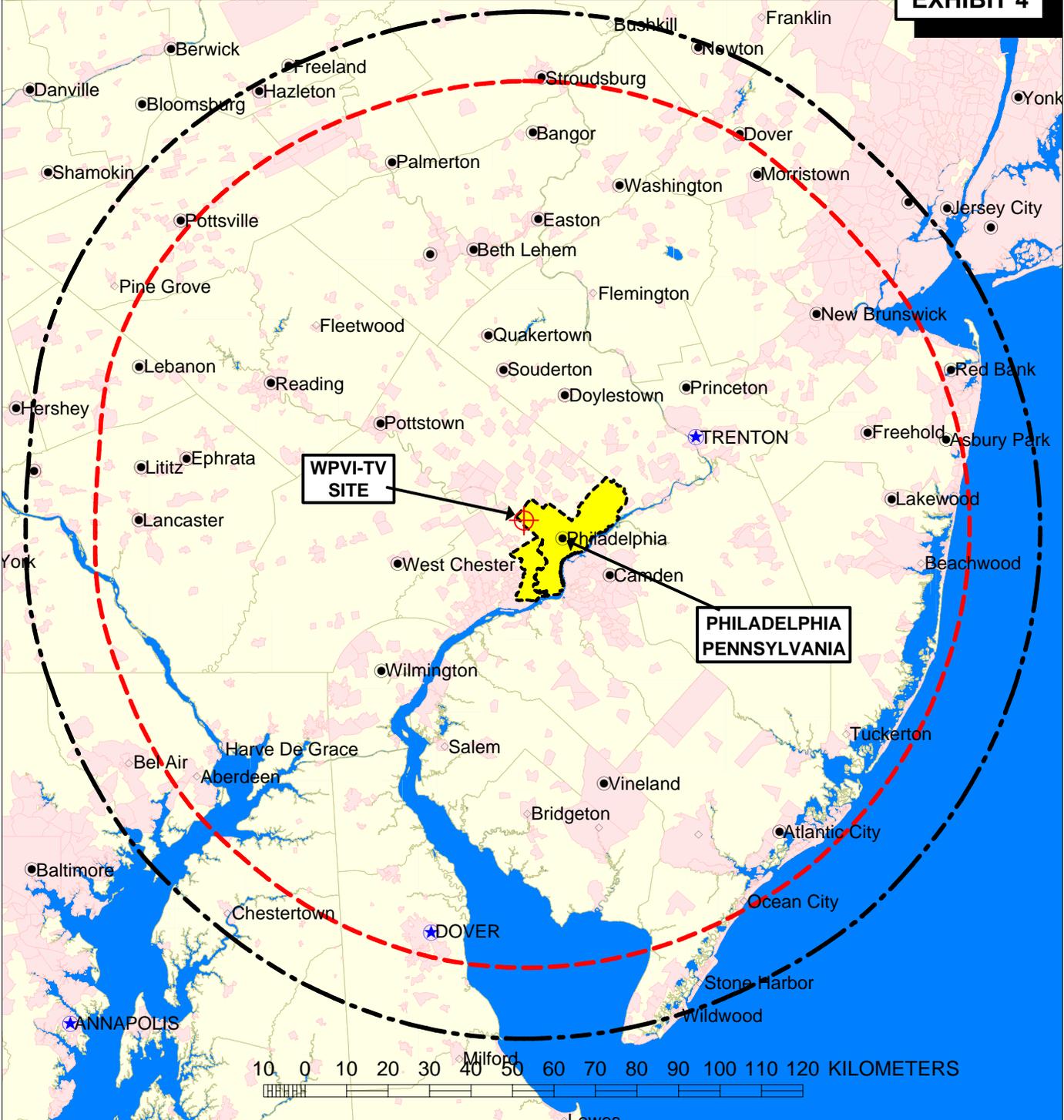
Proposal Number **C-04057** **Exhibit 3**
 Date **16-Mar-10**
 Call Letters **WPVI-TV** Channel **6**
 Location **Philadelphia, PA**
 Customer
 Antenna Type **CBR-O3FMB-6/18H-1**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **06C055100-90**

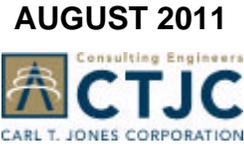
Angle	Field										
-10.0	0.105	2.4	0.977	10.6	0.234	30.5	0.152	51.0	0.096	71.5	0.093
-9.5	0.141	2.6	0.970	10.8	0.214	31.0	0.154	51.5	0.088	72.0	0.091
-9.0	0.185	2.8	0.962	11.0	0.194	31.5	0.155	52.0	0.081	72.5	0.088
-8.5	0.235	3.0	0.953	11.5	0.148	32.0	0.154	52.5	0.072	73.0	0.086
-8.0	0.288	3.2	0.943	12.0	0.110	32.5	0.150	53.0	0.064	73.5	0.083
-7.5	0.343	3.4	0.933	12.5	0.086	33.0	0.145	53.5	0.055	74.0	0.080
-7.0	0.400	3.6	0.921	13.0	0.083	33.5	0.139	54.0	0.046	74.5	0.077
-6.5	0.457	3.8	0.909	13.5	0.099	34.0	0.130	54.5	0.038	75.0	0.075
-6.0	0.514	4.0	0.896	14.0	0.123	34.5	0.121	55.0	0.029	75.5	0.072
-5.5	0.570	4.2	0.882	14.5	0.148	35.0	0.110	55.5	0.021	76.0	0.069
-5.0	0.625	4.4	0.868	15.0	0.172	35.5	0.098	56.0	0.015	76.5	0.066
-4.5	0.679	4.6	0.852	15.5	0.193	36.0	0.085	56.5	0.014	77.0	0.063
-4.0	0.729	4.8	0.837	16.0	0.210	36.5	0.071	57.0	0.017	77.5	0.060
-3.5	0.777	5.0	0.820	16.5	0.224	37.0	0.057	57.5	0.023	78.0	0.057
-3.0	0.821	5.2	0.803	17.0	0.234	37.5	0.043	58.0	0.030	78.5	0.054
-2.8	0.838	5.4	0.785	17.5	0.239	38.0	0.028	58.5	0.037	79.0	0.052
-2.6	0.854	5.6	0.767	18.0	0.241	38.5	0.013	59.0	0.044	79.5	0.049
-2.4	0.869	5.8	0.748	18.5	0.240	39.0	0.001	59.5	0.051	80.0	0.046
-2.2	0.883	6.0	0.728	19.0	0.234	39.5	0.016	60.0	0.058	80.5	0.044
-2.0	0.897	6.2	0.708	19.5	0.226	40.0	0.030	60.5	0.064	81.0	0.041
-1.8	0.910	6.4	0.688	20.0	0.215	40.5	0.043	61.0	0.070	81.5	0.038
-1.6	0.922	6.6	0.667	20.5	0.201	41.0	0.056	61.5	0.075	82.0	0.036
-1.4	0.933	6.8	0.646	21.0	0.184	41.5	0.067	62.0	0.080	82.5	0.034
-1.2	0.944	7.0	0.624	21.5	0.166	42.0	0.079	62.5	0.084	83.0	0.031
-1.0	0.953	7.2	0.602	22.0	0.146	42.5	0.089	63.0	0.088	83.5	0.029
-0.8	0.962	7.4	0.580	22.5	0.125	43.0	0.098	63.5	0.092	84.0	0.027
-0.6	0.970	7.6	0.558	23.0	0.103	43.5	0.106	64.0	0.094	84.5	0.024
-0.4	0.977	7.8	0.536	23.5	0.081	44.0	0.112	64.5	0.097	85.0	0.022
-0.2	0.983	8.0	0.513	24.0	0.059	44.5	0.118	65.0	0.099	85.5	0.020
0.0	0.988	8.2	0.490	24.5	0.039	45.0	0.123	65.5	0.101	86.0	0.018
0.2	0.993	8.4	0.467	25.0	0.024	45.5	0.126	66.0	0.102	86.5	0.016
0.4	0.996	8.6	0.445	25.5	0.026	46.0	0.128	66.5	0.103	87.0	0.014
0.6	0.998	8.8	0.422	26.0	0.041	46.5	0.129	67.0	0.103	87.5	0.012
0.8	1.000	9.0	0.399	26.5	0.058	47.0	0.129	67.5	0.103	88.0	0.010
1.0	1.000	9.2	0.376	27.0	0.076	47.5	0.128	68.0	0.103	88.5	0.008
1.2	0.999	9.4	0.354	27.5	0.092	48.0	0.126	68.5	0.102	89.0	0.005
1.4	0.998	9.6	0.331	28.0	0.107	48.5	0.123	69.0	0.101	89.5	0.003
1.6	0.996	9.8	0.320	28.5	0.120	49.0	0.119	69.5	0.100	90.0	0.000
1.8	0.992	10.0	0.298	29.0	0.131	49.5	0.115	70.0	0.099		
2.0	0.988	10.2	0.276	29.5	0.140	50.0	0.109	70.5	0.097		
2.2	0.983	10.4	0.255	30.0	0.147	50.5	0.103	71.0	0.095		

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PREDICTED COVERAGE CONTOURS
WPVI-TV, PHILADELPHIA, PENNSYLVANIA
DTV - CH. 6 - 34.0 kW - 330.0 m HAAT

Predicted Principal Community Contour
 F(50,90) - 35 dBu
 Area = 34,370 sq km
 Population = 10,578,603



Predicted Noise Limited Contour
 F(50,90) - 28 dBu
 Area = 46,130 sq km
 Population = 13,153,341

**SUMMARY OF RADIOFREQUENCY
RADIATION STUDY**
WPVI-TV, PHILADELPHIA, PENNSYLVANIA
CHANNEL 6, 34.0 kW ERP, 330.0 m HAAT
AUGUST, 2011

<u>CALL</u>	<u>SERVICE</u>	<u>CHANNEL</u>	<u>FREQUENCY</u>	<u>POLARIZATION</u>	<u>ANTENNA HEIGHT ** mAGL</u>	<u>ERP (kW)</u>	<u>VERT. RELATIVE FIELD FACTOR</u>	<u>PREDICTED POWER DENSITY (mW/cm²)</u>	<u>FCC UNCONTROLLED LIMIT (mW/cm²)</u>	<u>PERCENT OF UNCONTROLLED LIMIT</u>
WPVI-TV	DT	6	85	H & V	318.7	34.000	0.150	0.00050	0.200	0.25%
WHYY-TV	DT	12	207	H	290	30.000	0.130	0.00020	0.200	0.10%
WPHL-TV	DT	17	491	H	320	645.000	0.140	0.00412	0.327	1.26%
KYW-TV	DT	26	545	H	364	790.000	0.100	0.00199	0.363	0.55%
WXPN	FM	203	88.5	H & V	271	5.000	0.350	0.00056	0.200	0.28%
WHYY-FM	FM	215	90.9	H & V	277	13.500	0.400	0.00188	0.200	0.94%
WUSL	FM	255	98.9	H & V	189	27.000	0.280	0.00396	0.200	1.98%
WPHI-FM	FM	262	100.3	H & V	251	17.000	0.500	0.00451	0.200	2.25%
WBEB	FM	266	101.1	H & V	285	12.000	0.400	0.00158	0.200	0.79%
WIOQ	FM	271	102.1	H & V	191	27.000	0.400	0.00791	0.200	3.96%
WRFF	FM	283	104.5	H & V	306	11.000	0.500	0.00196	0.200	0.98%
WDAS-FM	FM	287	105.3	H & V	265	16.500	0.300	0.00141	0.200	0.71%

TOTAL PERCENTAGE OF ANSI VALUE= 14.05%

*** The antenna heights indicated above are 2 meters less than the actual antenna heights so that the predicted power densities consider the 2 meter human height allowance.*

This evaluation includes facilities collocated at the site, and facilities located within 315 meters.