

EXHIBIT A

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of NRJ TV PHILLY LICENSE CO., LLC, licensee of Class A digital television station WPHY-CD, Channel 50 in Trenton, New Jersey, in support of its application for modification of Construction Permit 0000028171, which specifies operation on its post-repack channel, Channel 22. The purpose of this modification is to specify operation from a new site, an increase in effective antenna height and increase in effective radiated power.

It is proposed to mount an Dielectric directional antenna at the 354-meter level of the existing 383-meter tower on which the WTVE-DT antenna is presently located. The proposed effective radiated power for the facility is 15.0 kW in the horizontal plane. Exhibit B is a map upon which the predicted 51 dBu service contour is plotted.

Elevation and azimuth pattern data for the proposed antenna appear in Exhibit C. Exhibit D contains the summary results from a TVStudy interference study, which was conducted using a cell size and increment spacing of 1.0 kilometer. It concludes that the proposed WPHY-CD facility meets the Commission's *de minimis* interference criteria to all co-channel and adjacent-channel post-repack full-power and Class A and LPTV/translator facilities. A detailed power density calculation is provided in Exhibit E.

Since no change in the overall height or location of the existing tower is proposed herein, the Federal Aviation Administration has not been notified of this application. In addition, the Federal Communications Commission issued Antenna Structure Registration Number 1231524 to this tower.

EXHIBIT A

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

A handwritten signature in blue ink, appearing to read "K. T. Fisher". The signature is stylized with a large "K" and a long horizontal stroke at the end.

KEVIN T. FISHER

November 1, 2017

**CONTOUR POPULATION
2015 U.S. CENSUS DATA
5,053,192 (2,070,019 HH)**

SMITHANDFISHER

**FCC 51 DBU
SERVICE CONTOUR**

**EXHIBIT B
PREDICTED SERVICE CONTOUR
PROPOSED WPHY-CD
CH. 22 - TRENTON, NEW JERSEY**

Scale 1:600,000

0 5 10 15 mi

EXHIBIT C

Horizontal Polarization AZIMUTH PATTERN

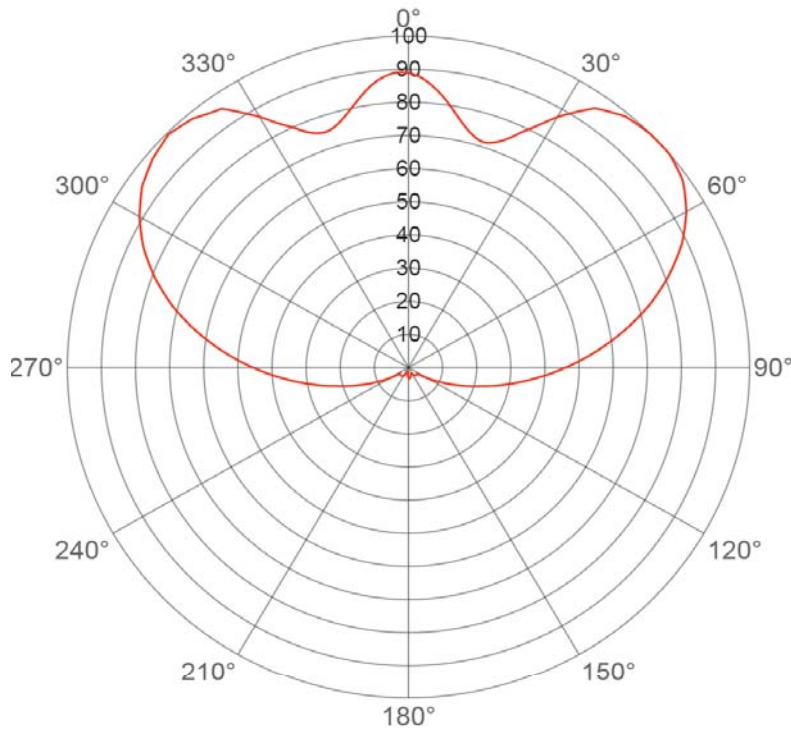


Exhibit No.
Date **26 Sep 2017**
Call Letters **WPHY-CD**
Channel **22**
Antenna Type **TUA-C2-02/04M-T**
Location **Philadelphia, PA**
Customer **NRJ TV Philly OpCo, LLC**

Gain **2.8 (4.47 dB)**
Calculated
Drawing # **TUA-C2**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.888	36	0.962	72	0.780	108	0.181	144	0.027	180	0.030	216	0.032	252	0.179	288	0.761	324	0.958
1	0.885	37	0.969	73	0.764	109	0.169	145	0.026	181	0.029	217	0.032	253	0.191	289	0.776	325	0.954
2	0.879	38	0.975	74	0.748	110	0.156	146	0.025	182	0.028	218	0.032	254	0.204	290	0.791	326	0.937
3	0.871	39	0.982	75	0.732	111	0.146	147	0.025	183	0.027	219	0.032	255	0.216	291	0.804	327	0.921
4	0.861	40	0.989	76	0.714	112	0.136	148	0.024	184	0.026	220	0.032	256	0.231	292	0.817	328	0.904
5	0.849	41	0.991	77	0.696	113	0.125	149	0.023	185	0.024	221	0.032	257	0.245	293	0.831	329	0.889
6	0.838	42	0.993	78	0.678	114	0.115	150	0.022	186	0.023	222	0.032	258	0.260	294	0.844	330	0.874
7	0.825	43	0.995	79	0.660	115	0.105	151	0.021	187	0.021	223	0.032	259	0.275	295	0.857	331	0.856
8	0.811	44	0.997	80	0.642	116	0.096	152	0.020	188	0.020	224	0.032	260	0.290	296	0.868	332	0.839
9	0.796	45	0.999	81	0.624	117	0.088	153	0.020	189	0.018	225	0.032	261	0.306	297	0.878	333	0.824
10	0.782	46	0.999	82	0.606	118	0.080	154	0.019	190	0.017	226	0.032	262	0.322	298	0.889	334	0.811
11	0.768	47	1.000	83	0.588	119	0.071	155	0.019	191	0.015	227	0.032	263	0.338	299	0.900	335	0.799
12	0.755	48	1.000	84	0.569	120	0.063	156	0.019	192	0.014	228	0.032	264	0.354	300	0.911	336	0.785
13	0.744	49	1.000	85	0.551	121	0.057	157	0.020	193	0.013	229	0.032	265	0.370	301	0.919	337	0.774
14	0.734	50	1.000	86	0.533	122	0.050	158	0.020	194	0.012	230	0.032	266	0.387	302	0.927	338	0.764
15	0.727	51	0.997	87	0.515	123	0.044	159	0.021	195	0.012	231	0.032	267	0.404	303	0.936	339	0.757
16	0.720	52	0.993	88	0.497	124	0.037	160	0.021	196	0.012	232	0.032	268	0.422	304	0.945	340	0.753
17	0.716	53	0.990	89	0.479	125	0.031	161	0.022	197	0.012	233	0.032	269	0.439	305	0.953	341	0.751
18	0.715	54	0.986	90	0.461	126	0.031	162	0.024	198	0.013	234	0.032	270	0.456	306	0.958	342	0.752
19	0.717	55	0.982	91	0.444	127	0.031	163	0.025	199	0.014	235	0.031	271	0.474	307	0.963	343	0.756
20	0.722	56	0.974	92	0.426	128	0.031	164	0.026	200	0.015	236	0.037	272	0.491	308	0.968	344	0.761
21	0.729	57	0.966	93	0.408	129	0.031	165	0.027	201	0.017	237	0.044	273	0.509	309	0.974	345	0.769
22	0.739	58	0.958	94	0.391	130	0.031	166	0.028	202	0.018	238	0.050	274	0.526	310	0.979	346	0.778
23	0.751	59	0.949	95	0.373	131	0.032	167	0.029	203	0.020	239	0.056	275	0.544	311	0.982	347	0.789
24	0.766	60	0.941	96	0.357	132	0.032	168	0.029	204	0.021	240	0.063	276	0.561	312	0.985	348	0.801
25	0.784	61	0.930	97	0.341	133	0.032	169	0.030	205	0.022	241	0.071	277	0.579	313	0.988	349	0.813
26	0.798	62	0.918	98	0.325	134	0.032	170	0.031	206	0.024	242	0.079	278	0.596	314	0.991	350	0.826
27	0.815	63	0.907	99	0.308	135	0.032	171	0.032	207	0.025	243	0.087	279	0.614	315	0.995	351	0.839
28	0.833	64	0.896	100	0.292	136	0.032	172	0.032	208	0.026	244	0.096	280	0.631	316	0.992	352	0.850
29	0.853	65	0.884	101	0.277	137	0.032	173	0.032	209	0.027	245	0.104	281	0.648	317	0.989	353	0.861
30	0.873	66	0.870	102	0.262	138	0.031	174	0.032	210	0.028	246	0.114	282	0.665	318	0.986	354	0.871
31	0.889	67	0.856	103	0.247	139	0.031	175	0.032	211	0.029	247	0.124	283	0.682	319	0.984	355	0.878
32	0.906	68	0.842	104	0.233	140	0.030	176	0.032	212	0.030	248	0.135	284	0.699	320	0.981	356	0.884
33	0.922	69	0.827	105	0.218	141	0.030	177	0.032	213	0.030	249	0.145	285	0.716	321	0.974	357	0.889
34	0.939	70	0.812	106	0.205	142	0.029	178	0.032	214	0.031	250	0.155	286	0.731	322	0.968	358	0.891
35	0.955	71	0.796	107	0.193	143	0.028	179	0.031	215	0.031	251	0.167	287	0.746	323	0.963	359	0.891

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ELEVATION PATTERN

Exhibit No.

Date

26 Sep 2017

EXHIBIT C

Call Letters

WPHY-CD

Channel

22

Antenna Type

TUA-C2-02/04M-T

Location

Philadelphia, PA

Customer

NRJ TV Philly OpCo, LLC

RMS Gain at Main Lobe

4.2 (6.25 dB)

Beam Tilt

1.5 Degrees

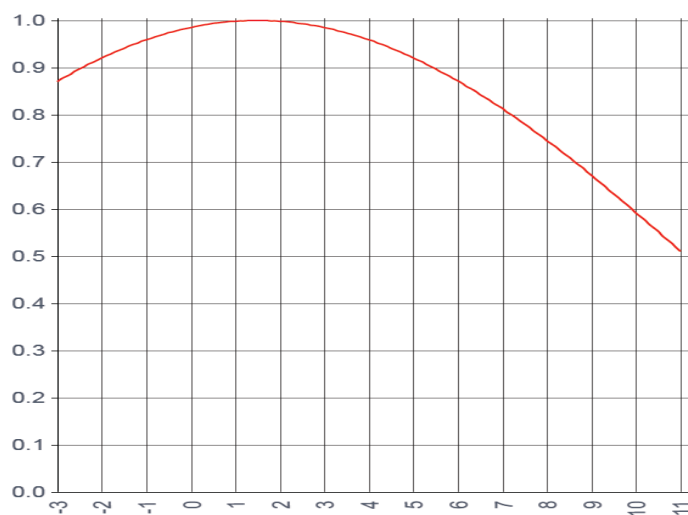
RMS Gain at Horizontal

4.1 (6.12 dB)

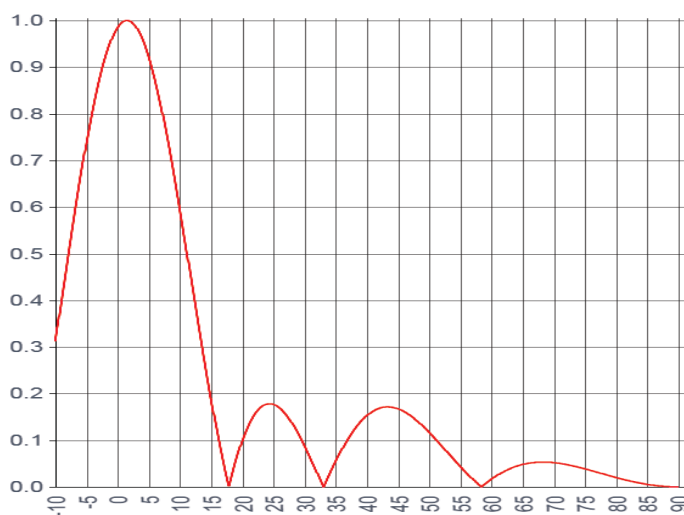
Drawing #

02U043150

Calculated



Degrees below horizontal



Degrees below horizontal

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10	0.312	10	0.592	30	0.087	50	0.117	70	0.052
-9	0.402	11	0.510	31	0.059	51	0.102	71	0.050
-8	0.491	12	0.427	32	0.030	52	0.088	72	0.048
-7	0.578	13	0.344	33	0.000	53	0.073	73	0.045
-6	0.662	14	0.264	34	0.028	54	0.058	74	0.042
-5	0.739	15	0.187	35	0.056	55	0.043	75	0.039
-4	0.809	16	0.115	36	0.081	56	0.029	76	0.035
-3	0.870	17	0.050	37	0.104	57	0.016	77	0.031
-2	0.920	18	0.008	38	0.124	58	0.004	78	0.028
-1	0.959	19	0.058	39	0.140	59	0.007	79	0.024
0	0.985	20	0.100	40	0.153	60	0.017	80	0.020
1	0.998	21	0.132	41	0.163	61	0.026	81	0.017
2	0.998	22	0.156	42	0.169	62	0.033	82	0.013
3	0.985	23	0.171	43	0.171	63	0.039	83	0.010
4	0.959	24	0.178	44	0.171	64	0.044	84	0.008
5	0.921	25	0.177	45	0.167	65	0.048	85	0.005
6	0.872	26	0.169	46	0.161	66	0.051	86	0.004
7	0.813	27	0.155	47	0.153	67	0.053	87	0.002
8	0.745	28	0.136	48	0.142	68	0.053	88	0.001
9	0.671	29	0.113	49	0.130	69	0.053	89	0.000

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TVSTUDY INTERFERENCE ANALYSIS RESULTS
PROPOSED WPHY-CD
CHANNEL 22 – TRENTON, NJ

Study created: 2017.11.01 09:52:55

Study build station data: LMS TV 2017-10-24 (1)

Proposal: WPHY-CD D22 DC CP TRENTON, NJ

File number: BLANK0000028171

Facility ID: 74464

Station data: User record

Record ID: 98

Country: U.S.

Build options:

Protect LPTV records from Class A

Stations affected by proposal:

Call	Chan	Svc	Status	City, State	File Number	Distance
WMPB	D22	DT	CP	BALTIMORE, MD	BLANK0000025181	147.5 km
WMPB	D22	DT	APP	BALTIMORE, MD	BLANK0000029875	147.5
WMPB	D22	DT	BL	BALTIMORE, MD	DTVBL65944	147.5
WDVB-CD	D22	DC	CP	EDISON, NJ	BLANK0000025114	131.8
WDVB-CD	D22	DC	BL	EDISON, NJ	DTVBL168834	131.8
WOLF-TV	D22	DT	CP	HAZLETON, PA	BLANK0000027934	137.6
WOLF-TV	D22	DT	BL	HAZLETON, PA	DTVBL73375	137.7
WNJS	D23	DT	CP	CAMDEN, NJ	BLANK0000026717	48.3
WNJS	D23	DT	BL	CAMDEN, NJ	DTVBL48481	48.3

No non-directional AM stations found within 0.8 km

Directional AM stations within 3.2 km:

WNWR 1540 C DA2 D PHILADELPHIA, PA BP20161215ABM

WNWR 1540 C DA2 N PHILADELPHIA, PA BP20161215ABM

WNWR 1540 L DAD D PHILADELPHIA, PA BMML20120724AFT

Record parameters as studied:

Channel: D22

Mask: Full Service

Latitude: 40 2 30.10 N (NAD83)

Longitude: 75 14 10.10 W
Height AMSL: 443.6 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: DIE TUA-C2-02/04M-T 0.0 deg
Elev Pattn: Generic
Elec Tilt: 1.50

49.6 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.012 kW	374.9 m	21.1 km
45.0	0.743	339.2	42.7
90.0	12.4	394.6	61.0
135.0	9.35	423.2	60.7
180.0	11.4	406.0	61.1
225.0	7.93	350.8	56.4
270.0	0.060	324.1	28.0
315.0	0.010	393.8	20.8

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 376 m

**Proposal service area extends beyond baseline plus 1.0%
Proposal service area population is more than 95.0% of baseline

Distance to Canadian border: 419.4 km

Distance to Mexican border: 2543.6 km

Conditions at FCC monitoring station: Laurel MD
Bearing: 234.8 degrees Distance: 167.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 280.1 degrees Distance: 2537.6 km

Study cell size: 1.00 km
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

Proposal receives 1.13% interference from scenario 1
Proposal receives 1.13% interference from scenario 2

**MX with BLANK0000029875 APP, 1.16% interference, scenario 3
**MX with BLANK0000029875 APP, 1.16% interference, scenario 4
Proposal receives 1.13% interference from scenario 5
Proposal receives 1.13% interference from scenario 6
Proposal receives 1.13% interference from scenario 7
Proposal receives 1.13% interference from scenario 8
**MX with BLANK0000029875 APP, 1.16% interference, scenario 9
**MX with BLANK0000029875 APP, 1.16% interference, scenario 10
Proposal receives 1.13% interference from scenario 11
Proposal receives 1.13% interference from scenario 12
Proposal receives 1.09% interference from scenario 13
Proposal receives 1.09% interference from scenario 14
**MX with BLANK0000029875 APP, 1.13% interference, scenario 15
**MX with BLANK0000029875 APP, 1.13% interference, scenario 16
Proposal receives 1.09% interference from scenario 17
Proposal receives 1.09% interference from scenario 18
Proposal receives 1.09% interference from scenario 19
Proposal receives 1.09% interference from scenario 20
**MX with BLANK0000029875 APP, 1.13% interference, scenario 21
**MX with BLANK0000029875 APP, 1.13% interference, scenario 22
Proposal receives 1.09% interference from scenario 23
Proposal receives 1.09% interference from scenario 24

No IX check failures found.

POWER DENSITY CALCULATION

PROPOSED WPHY-CD
CHANNEL 22 – TRENTON, NEW JERSEY

[MODIFICATION OF CONSTRUCTION PERMIT 0000028171]

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Trenton facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 15.0 kW, an antenna radiation center 354 meters above ground, and the specific elevation pattern of the proposed Dielectric antenna, maximum power density two meters above ground of 0.000057 mW/cm^2 is calculated to occur 365 meters southeast of the base of the tower. Since this is significantly less than 0.1 percent of the 0.35 mW/cm^2 reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 22 (518-524 MHz), a grant of this proposal may be considered a minor environmental action with respect to public exposure to non-ionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive non-ionizing radiation.