

ENGINEERING EXHIBIT

Application for Minor Modification of Digital Low Power Television Station Construction Permit

prepared for

Gray Television Licensee, LLC

W22CY Clarksburg, WV

Facility ID 125359

Ch. 22 (digital) 15 kW

Gray Television Licensee, LLC (“Gray”) is the licensee of analog Low Power Television station W22CY, Channel 22, Clarksburg WV, Facility ID 125359 (BLTTTL-20060120ADM). A Construction Permit (“CP”, BDFCDTL-20120329AOH) authorizes W22CY to flashcut to digital operation on its current Channel 22, at 1 kW effective radiated power (“ERP”) with a directional antenna. *Gray* herein seeks a minor modification of the flashcut CP to specify an increase in ERP to 15 kW and use of a nondirectional transmitting antenna. No change in site location or antenna height is proposed.

W22CY will continue to utilize the tower structure associated with FCC Antenna Structure Registration number 1226149. As proposed herein, W22CY will utilize a replacement antenna to be side-mounted on the tower. No change to the overall structure height is proposed.

The proposed antenna is an ERI model AL12O-22-E having elliptical polarization. The ERP is 15 kW using a “full service” out of channel emission mask. Figure 1 depicts the relevant coverage contours of the licensed analog facility (74 dBμ) and those of the current flashcut CP and proposed digital facilities (51 dBμ), demonstrating compliance with §73.3572 for a minor change.

Interference study per OET Bulletin 69¹ shows that the proposal complies with the FCC’s interference protection requirements toward all digital television, television translator, LPTV,

¹FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 (“OET-69”). This analysis employed the FCC’s current “TVStudy” software with the default application processing template settings, 1 km cell size, and 0.2 km

and Class A stations (existing and post-auction). FCC processing of this proposal is requested using a **1.0 km cell size and 0.2 km terrain profile increment**. The results, summarized in Table 1, show that any new interference does not exceed the FCC's interference limits (0.5 percent to full power and Class A stations, and 2.0 percent to secondary stations) to any facility.

Human Exposure to Radiofrequency Electromagnetic Field

The proposed facility was evaluated for human exposure to RF energy using the procedures outlined in the FCC's OET Bulletin Number. 65. Based on OET-65 equation (10) and 10 percent antenna relative field in downward elevations (pattern data shows less than 10 percent relative field at angles 30 to 90 degrees below the antenna), the calculated power density attributable to the proposed facility at locations near the transmitter site at a height of two meters above ground level is $1.0 \mu\text{W}/\text{cm}^2$, which is 0.3 percent of the general population / uncontrolled maximum permissible exposure limit. This is well below the five percent threshold limit described in §1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal's contribution is less than five percent.

The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower, or antenna from RF electromagnetic field exposure in excess of FCC guidelines. This exhibit is limited to the evaluation of exposure to RF electromagnetic field. No increase in structure height is proposed.

terrain increment. Comparisons of various results of this computer program (run on a Mac processor) to the FCC's implementation of TVStudy show excellent correlation.

Engineering Exhibit
Gray Television Licensee, LLC (W22CY)
(page 3 of 3)

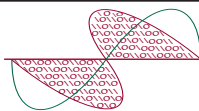


List of Attachments

Figure 1	Coverage Contour Comparison
Table 1	TVStudy Analysis of Proposal
Form 2100	Saved Version of Engineering Sections from FCC Form at Time of Upload

Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E.	March 30, 2019	
207 Old Dominion Road	Yorktown, VA 23692	703-650-9600



Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio

Figure 1
Coverage Contour Comparison
W22CY Clarksburg, WV
Facility ID 125359
Ch. 22 (digital) 15 kW

prepared for
Gray Television Licensee, LLC

March, 2019

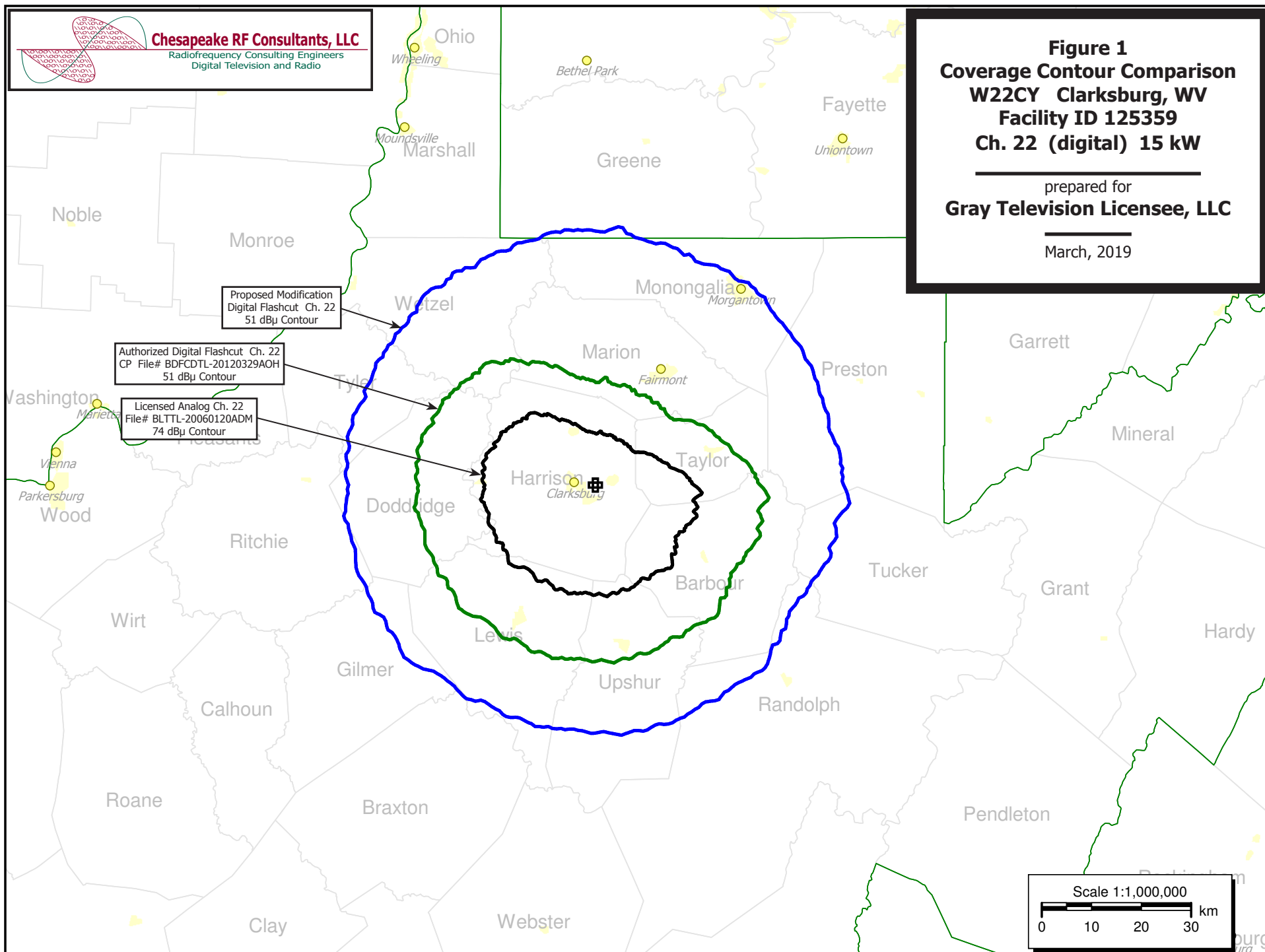


Table 1 W22CY TVStudy Analysis of Proposal (page 1 of 7)



tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: W22CY flashcut_Mod 1.0-0.2, Model: Longley-Rice
Start: 2019.03.30 10:40:59

Study created: 2019.03.30 10:39:03

Study build station data: LMS TV 2019-03-29

Proposal: W22CY D22 LD APP CLARKSBURG, WV
File number: W22CY flashcut_Mod
Facility ID: 125359
Station data: User record
Record ID: 2620
Country: U.S.

Build options:
Protect pre-transition records not on baseline channel

Search options:
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WQDI-LD	D21	LD	LIC	CANTON, OH	BLDTL20150129ABN	156.3 km
No	WJW	D21	LD	CP	CLEVELAND, OH	BDRTCDT20101123AOJ	188.7
No	WBNS-TV	D21	DT	LIC	COLUMBUS, OH	BLCDT20021025ABK	246.4
No	WSSS-LP	D21	LD	CP	STEUBENVILLE, OH	BDISDTL20121022AAR	123.8
No	WPNT	D21	DT	CP	PITTSBURGH, PA	BLANK0000034376	137.8
No	WWCW	D21	DT	CP	LYNCHBURG, VA	BLANK0000027725	224.8
No	WOCW-LP	N21+	TX	LIC	CHARLESTON, WV	BLTTL20051114AGM	154.5
No	W24DS-D	D21	LD	CP	PARKERSBURG, WV	BLANK0000051781	109.5
No	W23DR-D	D21	LD	CP	ROMNEY, WV	BLANK0000054636	135.8
No	WCVN-TV	D22	DT	CP	COVINGTON, KY	BLANK0000034633	364.0
No	WMPB	D22	DT	CP	BALTIMORE, MD	BLANK0000029875	302.7
No	WCNC-TV	D22	DT	LIC	CHARLOTTE, NC	BLCDT20031211ABN	443.4
No	WIRP-LD	D22	LD	LIC	FAYETTEVILLE, NC	BLANK0000010748	391.4
No	WUVV-DT	D22	DT	CP	FAYETTEVILLE, NC	BLANK0000034450	434.2
No	W51EE-D	D22	LD	CP	MARION, NC	BLANK0000053445	428.0
No	WNJS	D22	DT	LIC	CAMDEN, NJ	BLANK0000040675	470.2
No	WECY-LD	D22	LD	LIC	Elmira, NY	BLANK0000024397	418.3
Yes	WVPX-TV	D22	DT	CP	AKRON, OH	BLANK0000055357	226.5
No	WBGU-TV	D22	DT	LIC	BOWLING GREEN, OH	BLANK0000063785	369.8
No	WCPO-TV	D22	DT	LIC	CINCINNATI, OH	BLCDT20101216AAF	362.4
No	W22DE	N22+	TX	LIC	DAYTON, OH	BLTTL20100511AAU	343.7
No	WOCB-CD	D22	DC	CP	MARION, OH	BLANK0000034205	262.1
No	WIVD-LD	D22	LD	LIC	NEWCOMERSTOWN, OH	BLDTL20090617AAR	158.4
Yes	WTOO-CD	D22	DC	CP	BOLIVAR, PA	BLANK0000034570	165.4
No	WFXP	D22	DT	LIC	ERIE, PA	BLCDT20081023ABA	307.9
No	WOLF-TV	D22	DT	CP	HAZLETON, PA	BLANK0000027934	431.2
No	WJAC-TV	D22	LD	LIC	JOHNSTOWN, PA	BLCDT20110105ABC	213.7
No	WJAC-TV	D22	LD	LIC	JOHNSTOWN, PA	BLCDT20101105AAU	213.4
Yes	WTAE-TV	D22	LD	CP	PITTSBURGH, PA	BLANK0000058307	133.1
Yes	WTAE-TV	D22	LD	LIC	PITTSBURGH, PA	BLCDT20091223AKV	133.1
Yes	WWKH-CD	D22	DC	CP	UNIONTOWN, PA	BLANK0000027838	84.5
No	WKPT-CD	D22	DC	LIC	KINGSPORT, TN	BLDTA20120420ACJ	365.7
No	WRIC-TV	D22	DT	LIC	PETERSBURG, VA	BLCDT20090209ABZ	305.7
No	WCVE-TV	D22	DT	CP	RICHMOND, VA	BLANK0000034128	305.7
No	W22EX-D	D22	LD	LIC	STAUNTON, VA	BLANK0000055155	150.0
Yes	WSAZ-TV	D22	DT	CP	HUNTINGTON, WV	BLANK0000034103	186.9
No	W22CV-D	D22	LD	LIC	MOOREFIELD, WV	BLDTT20120608ABX	123.9
Yes	WOVA-LD	D22	LD	LIC	PARKERSBURG, WV	BLDTL20120904ABM	109.5
Yes	W22ES-D	D22	LD	CP	SUTTON, WV	BNPDTL20100514AAM	80.9
No	WDVM-TV	D23	DT	CP	HAGERSTOWN, MD	BLANK0000034764	204.5
No	WVPX-TV	D23	DT	LIC	AKRON, OH	BLANK0000050597	226.9
No	WWHO	D23	DT	CP	CHILLICOTHE, OH	BLANK0000034759	244.7
No	WTOO-CD	D23	DC	LIC	BOLIVAR, PA	BLANK0000001414	186.1
No	WPXI	D23	LD	LIC	PITTSBURGH, PA	BLCDT20100429ADA	84.5
No	WPXI	D23	DT	CP	PITTSBURGH, PA	BLANK0000034876	134.3
No	WSAZ-TV	D23	DT	LIC	HUNTINGTON, WV	BLANK0000001039	186.9
No	W23DR-D	D23	LD	LIC	ROMNEY, WV	BLDTT20090609AAZ	135.8
No	WIIC-LD	N29+	TX	LIC	PITTSBURGH, PA	BLTTL19981230JB	133.1
No	W30CH	N30-	TX	LIC	CLARKSBURG, WV	BLTTL20070319AAK	5.0

Table 1 W22CY TVStudy Analysis of Proposal (page 2 of 7)



No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D22
Mask: Full Service
Latitude: 39 16 32.00 N (NAD83)
Longitude: 80 17 43.00 W
Height AMSL: 558.0 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 1.25

49.6 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	15.0 kW	218.7 m	52.5 km
45.0	15.0	197.6	51.3
90.0	15.0	199.4	51.4
135.0	15.0	189.7	50.9
180.0	15.0	197.9	51.3
225.0	15.0	220.7	52.7
270.0	15.0	194.7	51.2
315.0	15.0	213.7	52.2

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 204 m

Distance to Canadian border: 320.6 km

Distance to Mexican border: 2140.0 km

Conditions at FCC monitoring station: Laurel MD
Bearing: 91.3 degrees Distance: 299.4 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 280.6 degrees Distance: 2126.8 km

Study cell size: 1.00 km
Profile point spacing: 0.20 km

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

Interference to BLANK0000055357 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WVPX-TV	D22	DT	CP	AKRON, OH	BLANK0000055357	
Undesireds:	W22CY	N22-	TX	LIC	CLARKSBURG, WV	BLTTTL20060120ADM	226.5 km
	W22CY	D22	LD	APP	CLARKSBURG, WV	W22CY flashcut_Mod	226.5
	WPNT	D21	DT	CP	PITTSBURGH, PA	BLANK0000034376	147.5
	WDWO-CD	D22	DC	CP	DETROIT, MI	BLANK0000028102	213.3
	WBGU-TV	D22	DT	LIC	BOWLING GREEN, OH	BLANK0000063785	194.0
	WOCB-CD	D22	DC	CP	MARION, OH	BLANK0000034205	148.0
	WTOO-CD	D22	DC	CP	BOLIVAR, PA	BLANK0000034570	232.7
	WWKH-CD	D22	DC	CP	UNIONTOWN, PA	BLANK0000027838	211.3
	WSAZ-TV	D22	DT	CP	HUNTINGTON, WV	BLANK0000034103	287.9
	WNWO-TV	D23	DT	CP	TOLEDO, OH	BLANK0000033631	162.0
	WPXI	D23	DT	CP	PITTSBURGH, PA	BLANK0000034876	149.1

	Service area		Terrain-limited		IX-free, before	IX-free, after	Percent New IX
25730.5	4,149,104	25304.4	4,120,459	24802.8	4,086,578	24802.8 4,086,578	0.00 0.00
184.1	0	184.1	0	184.1	0	184.1 0	0.00 0.00

Table 1 W22CY TVStudy Analysis of Proposal
(page 3 of 7)



(in Canada)

Undesired		Total IX	Unique IX, before	Unique IX, after
W22CY N22- TX LIC	0.0	0	0.0	0
W22CY D22 LD APP	3.0	30	0.0	0
WPNT D21 DT CP	22.9	3,046	7.0	981
WDWO-CD D22 DC CP	13.0	2,788	0.0	0
WBGU-TV D22 DT LIC	384.8	25,285	320.8	20,586
WOCB-CD D22 DC CP	11.0	86	1.0	8
WTOO-CD D22 DC CP	66.8	4,702	33.0	1,593
WWKH-CD D22 DC CP	5.0	308	0.0	0
WSAZ-TV D22 DT CP	75.8	3,554	55.9	3,375
WNWO-TV D23 DT CP	13.1	827	0.0	0
WPXI D23 DT CP	11.9	1,521	1.0	0

Interference to BLANK0000034570 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WTOO-CD	D22	DC	CP	BOLIVAR, PA	BLANK0000034570	
Undesireds:	W22CY	N22-	TX	LIC	CLARKSBURG, WV	BLTTL20060120ADM	165.4 km
	W22CY	D22	LD	APP	CLARKSBURG, WV	W22CY flashcut_Mod	165.4
	WPNT	D21	DT	CP	PITTSBURGH, PA	BLANK0000034376	87.5
	WVPX-TV	D22	DT	CP	AKRON, OH	BLANK0000055357	232.7
	WOLF-TV	D22	DT	CP	HAZLETON, PA	BLANK0000027934	277.2
	WWKH-CD	D22	DC	CP	UNIONTOWN, PA	BLANK0000027838	81.1
	WDVM-TV	D23	DT	CP	HAGERSTOWN, MD	BLANK0000034764	117.1
	WPXI	D23	DT	CP	PITTSBURGH, PA	BLANK0000034876	87.0

	Service area	Terrain-limited		IX-free, before		IX-free, after	
	9352.5	639,018	7914.3	457,424	7715.7	447,927	Percent New IX
							0.00 0.00

Undesired		Total IX	Unique IX, before	Unique IX, after
W22CY N22- TX LIC	0.0	0	0.0	0
W22CY D22 LD APP	2.0	0	0.0	0
WPNT D21 DT CP	30.0	3,912	3.0	357
WVPX-TV D22 DT CP	43.9	2,793	19.0	352
WOLF-TV D22 DT CP	2.0	0	1.0	0
WWKH-CD D22 DC CP	155.7	6,555	114.8	3,618
WDVM-TV D23 DT CP	2.0	0	1.0	0
WPXI D23 DT CP	45.9	4,593	7.0	405

Interference to BLANK0000058307 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WTAE-TV	D22	LD	CP	PITTSBURGH, PA	BLANK0000058307	
Undesireds:	W22CY	N22-	TX	LIC	CLARKSBURG, WV	BLTTL20060120ADM	133.1 km
	W22CY	D22	LD	APP	CLARKSBURG, WV	W22CY flashcut_Mod	133.1
	WPNT	D21	DT	CP	PITTSBURGH, PA	BLANK0000034376	6.4
	WVPX-TV	D22	DT	CP	AKRON, OH	BLANK0000055357	153.0
	WTOO-CD	D22	DC	CP	BOLIVAR, PA	BLANK0000034570	83.4
	WJAC-TV	D22	LD	LIC	JOHNSTOWN, PA	BLCDT20110105ABC	129.5
	WWKH-CD	D22	DC	CP	UNIONTOWN, PA	BLANK0000027838	70.7
	WSAZ-TV	D22	DT	CP	HUNTINGTON, WV	BLANK0000034103	289.4
	WPXI	D23	LD	LIC	PITTSBURGH, PA	BLCDT20100429ADA	70.7
	WPXI	D23	DT	CP	PITTSBURGH, PA	BLANK0000034876	3.9

	Service area	Terrain-limited		IX-free, before		IX-free, after	
	5833.8	1,794,695	5644.4	1,747,792	4430.5	1,435,355	Percent New IX
							0.00 0.00

Undesired		Total IX	Unique IX, before	Unique IX, after
W22CY N22- TX LIC	0.0	0	0.0	0
W22CY D22 LD APP	1.0	18	0.0	0
WPNT D21 DT CP	654.4	199,871	91.7	26,080
WVPX-TV D22 DT CP	119.8	22,950	19.0	2,793
WTOO-CD D22 DC CP	233.8	25,860	69.6	7,887
WWKH-CD D22 DC CP	262.0	58,666	29.9	5,815
WSAZ-TV D22 DT CP	2.0	45	1.0	35
WPXI D23 LD LIC	2.0	1,143	0.0	0
WPXI D23 DT CP	927.0	259,022	282.8	81,395

Table 1 W22CY TVStudy Analysis of Proposal
(page 4 of 7)



Interference to BLANK0000058307 CP scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTAE-TV	D22	LD	CP	PITTSBURGH, PA	BLANK0000058307	
Undesireds:	W22CY	N22-	TX	LIC	CLARKSBURG, WV	BLTTL20060120ADM	133.1 km
	W22CY	D22	LD	APP	CLARKSBURG, WV	W22CY flashcut_Mod	133.1
	WPNT	D21	DT	CP	PITTSBURGH, PA	BLANK0000034376	6.4
	WVPX-TV	D22	DT	CP	AKRON, OH	BLANK0000055357	153.0
	WTOO-CD	D22	DC	CP	BOLIVAR, PA	BLANK0000034570	83.4
	WJAC-TV	D22	LD	LIC	JOHNSTOWN, PA	BLCDT20101105AAU	129.2
	WWKH-CD	D22	DC	CP	UNIONTOWN, PA	BLANK0000027838	70.7
	WSAZ-TV	D22	DT	CP	HUNTINGTON, WV	BLANK0000034103	289.4
	WPXI	D23	LD	LIC	PITTSBURGH, PA	BLCDT20100429ADA	70.7
	WPXI	D23	DT	CP	PITTSBURGH, PA	BLANK0000034876	3.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
5833.8		1,794,695		4430.5		1,435,355	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
W22CY N22- TX LIC	0.0	0	0
W22CY D22 LD APP	1.0	18	0.0 0
WPNT D21 DT CP	654.4	199,871	91.7 26,080
WVPX-TV D22 DT CP	119.8	22,950	19.0 2,793
WTOO-CD D22 DC CP	233.8	25,860	69.6 7,887
WJAC-TV D22 LD LIC	3.0	11	0.0 0
WWKH-CD D22 DC CP	262.0	58,666	29.9 5,815
WSAZ-TV D22 DT CP	2.0	45	1.0 35
WPXI D23 LD LIC	2.0	1,143	0.0 0
WPXI D23 DT CP	927.0	259,022	282.8 81,395

Interference to BLCDT20091223AKV LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTAE-TV	D22	LD	LIC	PITTSBURGH, PA	BLCDT20091223AKV	
Undesireds:	W22CY	N22-	TX	LIC	CLARKSBURG, WV	BLTTL20060120ADM	133.1 km
	W22CY	D22	LD	APP	CLARKSBURG, WV	W22CY flashcut_Mod	133.1
	WPNT	D21	DT	CP	PITTSBURGH, PA	BLANK0000034376	6.5
	WVPX-TV	D22	DT	CP	AKRON, OH	BLANK0000055357	153.0
	WTOO-CD	D22	DC	CP	BOLIVAR, PA	BLANK0000034570	83.4
	WJAC-TV	D22	LD	LIC	JOHNSTOWN, PA	BLCDT20110105ABC	129.5
	WWKH-CD	D22	DC	CP	UNIONTOWN, PA	BLANK0000027838	70.7
	WPXI	D23	LD	LIC	PITTSBURGH, PA	BLCDT20100429ADA	70.7
	WPXI	D23	DT	CP	PITTSBURGH, PA	BLANK0000034876	3.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
5181.0		1,815,313		3657.9		1,436,689	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
W22CY N22- TX LIC	0.0	0	0
W22CY D22 LD APP	1.0	8	0.0 0
WPNT D21 DT CP	750.4	187,243	64.8 16,620
WVPX-TV D22 DT CP	121.8	33,797	11.0 4,389
WTOO-CD D22 DC CP	254.9	30,584	52.7 6,548
WWKH-CD D22 DC CP	415.9	82,142	70.9 12,929
WPXI D23 LD LIC	5.0	749	0.0 0
WPXI D23 DT CP	1008.3	268,256	241.2 84,880

Interference to BLCDT20091223AKV LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WTAE-TV	D22	LD	LIC	PITTSBURGH, PA	BLCDT20091223AKV	
Undesireds:	W22CY	N22-	TX	LIC	CLARKSBURG, WV	BLTTL20060120ADM	133.1 km
	W22CY	D22	LD	APP	CLARKSBURG, WV	W22CY flashcut_Mod	133.1
	WPNT	D21	DT	CP	PITTSBURGH, PA	BLANK0000034376	6.5
	WVPX-TV	D22	DT	CP	AKRON, OH	BLANK0000055357	153.0
	WTOO-CD	D22	DC	CP	BOLIVAR, PA	BLANK0000034570	83.4

Table 1 W22CY TVStudy Analysis of Proposal
(page 5 of 7)



WJAC-TV	D22	LD	LIC	JOHNSTOWN, PA	BLCDT20101105AAU	129.2
WWKH-CD	D22	DC	CP	UNIONTOWN, PA	BLANK0000027838	70.7
WPXI	D23	LD	LIC	PITTSBURGH, PA	BLCDT20100429ADA	70.7
WPXI	D23	DT	CP	PITTSBURGH, PA	BLANK0000034876	3.9

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
5181.0 1,815,313	4950.4 1,761,855	3657.9 1,436,689	3657.9 1,436,689	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
W22CY N22- TX LIC	0.0 0	0.0 0	
W22CY D22 LD APP	1.0 8		0.0 0
WPNT D21 DT CP	750.4 187,243	64.8 16,620	64.8 16,620
WVPX-TV D22 DT CP	121.8 33,797	11.0 4,389	11.0 4,389
WTOO-CD D22 DC CP	254.9 30,584	52.7 6,548	52.7 6,548
WJAC-TV D22 LD LIC	2.0 155	0.0 0	0.0 0
WWKH-CD D22 DC CP	415.9 82,142	70.9 12,929	70.9 12,929
WPXI D23 LD LIC	5.0 749	0.0 0	0.0 0
WPXI D23 DT CP	1008.3 268,256	241.2 84,880	241.2 84,880

Interference to BLANK0000027838 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WWKH-CD	D22	DC	CP	UNIONTOWN, PA	BLANK0000027838	
Undesireds:	W22CY	N22-	TX	LIC	CLARKSBURG, WV	BLTTL20060120ADM	84.5 km
	W22CY	D22	LD	APP	CLARKSBURG, WV	W22CY flashcut_Mod	84.5
	WPNT	D21	DT	CP	PITTSBURGH, PA	BLANK0000034376	77.1
	WVPX-TV	D22	DT	CP	AKRON, OH	BLANK0000055357	211.3
	WTOO-CD	D22	DC	CP	BOLIVAR, PA	BLANK0000034570	81.1
	WSAZ-TV	D22	DT	CP	HUNTINGTON, WV	BLANK0000034103	266.6
	WPXI	D23	DT	CP	PITTSBURGH, PA	BLANK0000034876	73.8

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
3716.1 415,708	3419.9 388,422	3348.7 379,788	3332.6 379,076	0.48 0.19

Undesired	Total IX	Unique IX, before	Unique IX, after
W22CY N22- TX LIC	0.0 0	0.0 0	
W22CY D22 LD APP	32.1 2,085		16.1 712
WPNT D21 DT CP	24.0 4,787	4.0 435	3.0 375
WVPX-TV D22 DT CP	11.0 691	2.0 165	1.0 17
WTOO-CD D22 DC CP	46.1 3,465	35.1 1,389	27.1 761
WSAZ-TV D22 DT CP	4.0 125	2.0 121	1.0 0
WPXI D23 DT CP	26.1 6,247	3.0 531	3.0 531

Interference to BLANK0000034103 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WSAZ-TV	D22	DT	CP	HUNTINGTON, WV	BLANK0000034103	
Undesireds:	W22CY	N22-	TX	LIC	CLARKSBURG, WV	BLTTL20060120ADM	186.9 km
	W22CY	D22	LD	APP	CLARKSBURG, WV	W22CY flashcut_Mod	186.9
	WUPX-TV	D21	DT	LIC	RICHMOND, KY	BLANK0000067614	140.5
	WXIN	D22	DT	CP	INDIANAPOLIS, IN	BLANK0000034056	375.7
	WCVN-TV	D22	DT	CP	COVINGTON, KY	BLANK0000034633	206.5
	WVPX-TV	D22	DT	CP	AKRON, OH	BLANK0000055357	287.9
	WBGU-TV	D22	DT	LIC	BOWLING GREEN, OH	BLANK0000063785	325.5
	WOCB-CD	D22	DC	CP	MARION, OH	BLANK0000034205	212.7
	WCTE	D22	DT	LIC	COOKEVILLE, TN	BLEDT20110413ACS	379.0
	WKPI-TV	D23	DT	CP	PIKEVILLE, KY	BLANK0000034629	138.8
	WWHO	D23	DT	CP	CHILLICOTHE, OH	BLANK0000034759	173.0

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
36769.6 1,279,374	35826.9 1,223,613	35752.7 1,222,314	35740.7 1,222,265	0.03 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
W22CY N22- TX LIC	1.0 3	0.0 0	
W22CY D22 LD APP	16.0 230		12.0 49
WUPX-TV D21 DT LIC	32.3 495	30.3 495	30.3 495
WXIN D22 DT CP	7.0 273	1.0 19	1.0 19
WCVN-TV D22 DT CP	20.9 411	11.0 151	11.0 151
WVPX-TV D22 DT CP	5.0 194	4.0 191	1.0 13

Table 1 W22CY TVStudy Analysis of Proposal
(page 6 of 7)



WBGU-TV D22 DT LIC	5.0	130	2.0	29	2.0	29
WOCB-CD D22 DC CP	12.9	229	6.0	50	6.0	50
WCTE D22 DT LIC	1.0	0	1.0	0	1.0	0
WKPI-TV D23 DT CP	5.1	0	5.1	0	5.1	0
WVHO D23 DT CP	1.0	0	1.0	0	1.0	0

Interference to BLDLTL20120904ABM LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WOVA-LD	D22	LD	LIC	PARKERSBURG, WV	BLDTL20120904ABM	
Undesireds:	W22CY	N22-	TX	LIC	CLARKSBURG, WV	BLTTL20060120ADM	109.5 km
	W22CY	D22	LD	APP	CLARKSBURG, WV	W22CY flashcut_Mod	109.5
	WVPX-TV	D22	DT	CP	AKRON, OH	BLANK0000055357	189.6
	WIVD-LD	D22	LD	LIC	NEWCOMERSTOWN, OH	BLDTL20090617AAR	112.3
	WJAC-TV	D22	LD	LIC	JOHNSTOWN, PA	BLCDT20110105ABC	298.7
	WTAE-TV	D22	LD	CP	PITTSBURGH, PA	BLANK0000058307	183.0
	WSAZ-TV	D22	DT	CP	HUNTINGTON, WV	BLANK0000034103	109.1

	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	8138.5	261,709	7932.5	245,273	7492.6	237,437	7483.6 237,359 0.12 0.03
Undesired			Total IX	Unique IX, before		Unique IX, after	
W22CY N22- TX LIC		1.0	0	1.0	0		
W22CY D22 LD APP		20.8	185			9.9	78
WVPX-TV D22 DT CP		5.0	4	2.0	0	2.0	0
WIVD-LD D22 LD LIC		1.0	0	0.0	0	0.0	0
WSAZ-TV D22 DT CP		437.0	7,836	433.0	7,832	422.1	7,725

Interference to BNPDTL20100514AAM CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W22ES-D	D22	LD	CP	SUTTON, WV	BNPDTL20100514AAM	
Undesireds:	W22CY	N22-	TX	LIC	CLARKSBURG, WV	BLTTL20060120ADM	80.9 km
	W22CY	D22	LD	APP	CLARKSBURG, WV	W22CY flashcut_Mod	80.9
	WJAC-TV	D22	LD	LIC	JOHNSTOWN, PA	BLCDT20110105ABC	290.5
	WTAE-TV	D22	LD	CP	PITTSBURGH, PA	BLANK0000058307	212.6
	WSAZ-TV	D22	DT	CP	HUNTINGTON, WV	BLANK0000034103	132.7
	WOVA-LD	D22	LD	LIC	PARKERSBURG, WV	BLDTL20120904ABM	110.5

	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	1479.2	15,905	1414.2	14,941	1356.0	14,699	1346.0 14,543 0.74 1.06
Undesired			Total IX	Unique IX, before		Unique IX, after	
W22CY N22- TX LIC		3.0	0	1.0	0		
W22CY D22 LD APP		27.1	172			11.0	156
WSAZ-TV D22 DT CP		54.1	242	50.1	213	36.1	197
WOVA-LD D22 LD LIC		6.0	29	2.0	0	2.0	0

Interference to proposal scenario 1
2.99% interference received

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W22CY	D22	LD	APP	CLARKSBURG, WV	W22CY flashcut_Mod	
Undesireds:	WVPX-TV	D22	DT	CP	AKRON, OH	BLANK0000055357	226.5 km
	WJAC-TV	D22	LD	LIC	JOHNSTOWN, PA	BLCDT20110105ABC	213.7
	WTAE-TV	D22	LD	CP	PITTSBURGH, PA	BLANK0000058307	133.1
	WWKH-CD	D22	DC	CP	UNIONTOWN, PA	BLANK0000027838	84.5
	WSAZ-TV	D22	DT	CP	HUNTINGTON, WV	BLANK0000034103	186.9
	WOVA-LD	D22	LD	LIC	PARKERSBURG, WV	BLDTL20120904ABM	109.5
	W22ES-D	D22	LD	CP	SUTTON, WV	BNPDTL20100514AAM	80.9
	W23DR-D	D23	LD	LIC	ROMNEY, WV	BLDTT20090609AAZ	135.8

	Service area	Terrain-limited		IX-free		Percent IX	
	8307.2	296,914	8003.0	280,631	7860.0	272,244	1.79 2.99
Undesired			Total IX	Unique IX		Pront Unique IX	
WVPX-TV D22 DT CP		24.9	1,066	20.9	1,038	0.26	0.37

Table 1 W22CY TVStudy Analysis of Proposal
 (page 7 of 7)



WWKH-CD	D22	DC	CP	4.0	163	2.0	6	0.02	0.00
WSAZ-TV	D22	DT	CP	95.2	7,124	80.3	6,851	1.00	2.44
WOVA-LD	D22	LD	LIC	31.7	285	22.8	214	0.28	0.08
W22ES-D	D22	LD	CP	3.0	22	2.0	5	0.02	0.00

Channel and Facility Information

Section	Question	Response
Proposed Community of License	Facility ID	125359
	State	West Virginia
	City	CLARKSBURG
	LPD Channel	22

Antenna Location Data

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1226149
Coordinates (NAD83)	Latitude	39° 16' 32.0" N+
	Longitude	080° 17' 43.0" W-
	Structure Type	TOWER-A free standing or guyed struct
	Overall Structure Height	85.3 meters
	Support Structure Height	85.3 meters
	Ground Elevation (AMSL)	477.0 meters
Antenna Data	Height of Radiation Center Above Ground Level	81 meters
	Height of Radiation Center Above Mean Sea Level	558.0 meters
	Effective Radiated Power	15 kW

**Antenna
Technical Data**

Section	Question	Response
Antenna Type	Antenna Type	Non-Directional
	Do you have an Antenna ID?	
	Antenna ID	
Antenna Manufacturer and Model	Manufacturer:	ERI
	Model	AL12O-22-E
	Rotation	
	Electrical Beam Tilt	1.25
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Elliptical
Elevation Radiation Pattern	Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?	No
	Uploaded file for elevation antenna (or radiation) pattern data	
	Out-of-Channel Emission Mask:	Full Service