APPLICATION FOR CONSTRUCTION PERMIT

W29EG-LD – COLUMBUS, OHIO
FACILITY ID: 190268

DIGITAL NETWORKS–NORTHEAST, LLC

JUNE 2020

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APPLICATION FOR CONSTRUCTION PERMIT

The following engineering statement and attached exhibits have been prepared for **Digital Networks-Northeast, LLC** ("Northeast"), licensee of digital low power television station W29EG-LD at Zanesville, Ohio, and are in support of their application for construction permit.[1] This application proposes a relocation of the licensed facility described un LMS File No. 0000114544. The proposed relocation would include a change in associated technical parameters, but no change in the channel of operation.

The current license for W29EG-LD authorizes operation on channel 29 with a maximum effective radiated power of 1.39 kW at a center of radiation of 233.5 meters above mean sea level, 30 meters above ground level, utilizing a composite directional antenna system. The proposed facility would operate on channel 29 with a maximum effective radiated power of 15 kW at a center of radiation of 350.0 meters above mean sea level, 64.1 meters above ground level, utilizing a Propagation Systems, Inc. ("PSI") model PSILP12AH antenna oriented at 90 degrees true.

The proposed technical parameters represent a minor change to the licensed facilities. Exhibit E-1 illustrates that the proposed 51 dBu F(50,90) service contour overlaps the licensed 51 dBu F(50,90) contour. Additionally, this map demonstrates that the proposed transmitter site is located within 30 miles of the licensed transmitter site. No change in the channel of operation is proposed under this application as was previously stated.

[1] The Facility ID for W29EG-LD is 190268.

Exhibit E-2 is the study output from *TVStudy* for the proposed facility. This study demonstrates that there are no outgoing interference check failures to any proposed or authorized facilities. This study was performed at a cell size resolution of 1.0 km, and a profile spacing increment of 1.0 km.

The proposed facility would not constitute a significant environmental impact, and is exempt from environmental processing. The proposed antenna array would be mounted to an existing tower that is registered with the Commission. The addition of the antenna system to this tower would not increase the already existing environmental impact present from the structure.

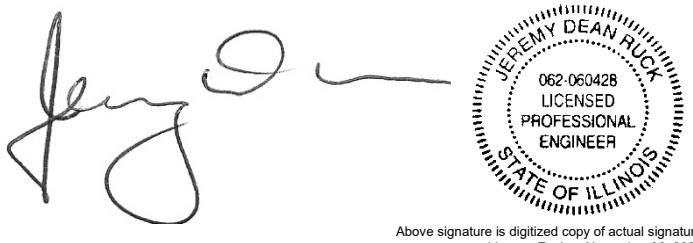
In addition, the proposed facility would not result in human exposure at ground level to radiofrequency radiation in excess of the Commission's safety standards. Using the equations in Supplement A of *OET Bulletin 65*, the calculated worst-case power density at ground level assuming a downward radiation relative field of 0.3 is 11.7 $\mu W/cm^2$. This value is substantially below the upper limit of the uncontrolled environment condition.

Northeast certifies it will coordinate with all other users of the site to ensure that workers and other personnel are not exposed to levels of radiofrequency radiation in excess of the applicable safety standards. Coordination activities will include, but are not necessarily limited to, a reduction in transmitter power or cessation of operation.

The proposed facility complies with the provisions of Section 74.709 of the Commission's Rules. No land mobile protection issues have been identified based on the tables in that section of

the rules, or on the output of *TVStudy*. The proposed facility also complies with Sections 74.793(e)-(h) of the Commission's Rules.

The preceding statement and attached exhibits have been prepared by me, or under my direction, and are true and accurate to the best of my belief and knowledge.



Above signature is digitized copy of actual signature
License Expires November 30, 2021

Jeremy D. Ruck, PE
June 20, 2020

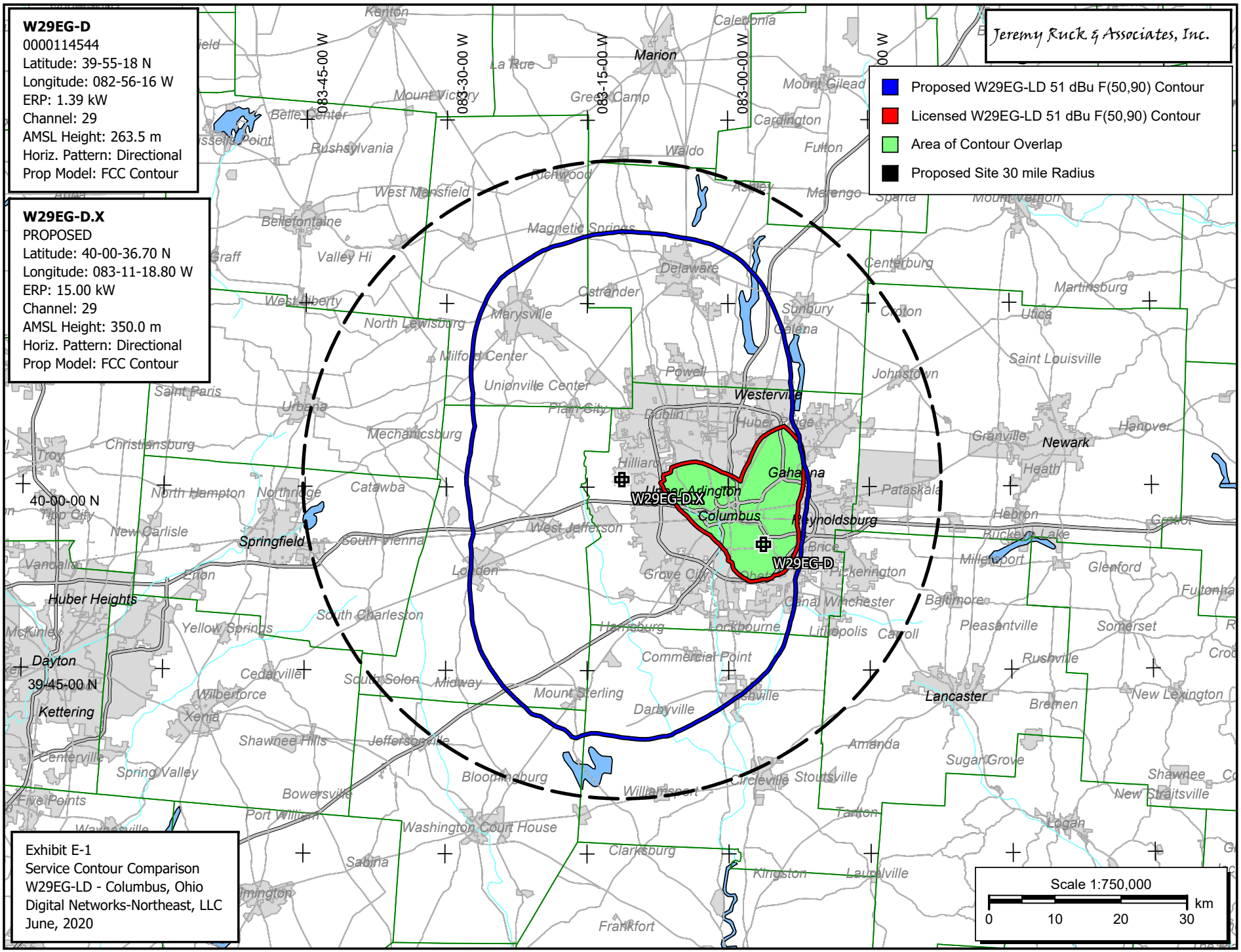

W29EG-D
0000114544
Latitude: 39-55-18 N
Longitude: 082-56-16 W
ERP: 1.39 kW
Channel: 29
AMSL Height: 263.5 m
Horiz. Pattern: Directional
Prop Model: FCC Contour
W29EG-D.X
PROPOSED
Latitude: 40-00-36.70 N
Longitude: 083-11-18.80 W
ERP: 15.00 kW
Channel: 29
AMSL Height: 350.0 m
Horiz. Pattern: Directional
Prop Model: FCC Contour
Jeremy Ruck & Associates, Inc.
Proposed W29EG-LD 51 dBu F(50,90) Contour
Licensed W29EG-LD 51 dBu F(50,90) Contour
Area of Contour Overlap
Proposed Site 30 mile Radius
083-45-00 W
083-30-00 W
083-15-00 W
083-00-00 W
40-00-00 N
39-45-00 N
W29EG-D.X
W29EG-D
Columbus
Dayton
Springfield
Huber Heights
Kettering
Lancaster
Marion
Newark
Westerville
Scale 1:750,000
0 10 20 30 km
Exhibit E-1
Service Contour Comparison
W29EG-LD - Columbus, Ohio
Digital Networks-Northeast, LLC
June, 2020

Exhibit E-2 - TVStudy Interference Study

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tvstudy v2.2.5 (4uoc83)
Database: 127.0.0.1,  Study: W29EG-LD CH 29 ASRN 1013752 15 kW ERP 350 m AMSL PSILP12AH @90,  Model: Longley-
Rice
Start: 2020.06.20 09:26:17

Study created: 2020.06.20 09:26:17

Study build station data: LMS TV 2020-06-20

    Proposal: W29EG-D D29 LD LIC COLUMBUS, OH
 File number: BLANK0000114544
 Facility ID: 190268
Station data: User record
   Record ID: 160
     Country: U.S.

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

Stations potentially affected by proposal:
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IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	W22DE	N22+	TX	LIC	DAYTON, OH	BLTTL20100511AAU	97.0 km
No	WIPX-TV	D28	DT	LIC	BLOOMINGTON, IN	BLANK0000106045	261.9
No	W28EY-D	D28	LD	CP	FORT WAYNE, IN	BLANK0000071946	194.4
No	WLEX-TV	D28	DT	LIC	LEXINGTON, KY	BLANK0000087372	243.1
No	WBQC-LD	D28	LD	LIC	CINCINNATI, OH	BLANK0000088128	149.3
No	WSYX	D28	DT	LIC	COLUMBUS, OH	BLANK0000087264	16.4
No	WMAQ-TV	D29	DT	LIC	CHICAGO, IL	BLANK0000053194	427.2
No	WEDX-LD	D29	LD	CP	FORT WAYNE, IN	BLANK0000036232	184.7
No	WJYL-CD	D29	DC	LIC	JEFFERSONVILLE, IN	BLANK0000087052	291.6
No	W51DU	D29-	LD	CP	LAFAYETTE, IN	BLANK0000054375	314.9
No	WSBT-TV	D29	DT	LIC	SOUTH BEND, IN	BLANK0000087455	311.1
No	W29FI-D	D29	LD	CP	TERRE HAUTE, IN	BLANK0000071923	368.4
No	WKGB-TV	D29	DT	LIC	BOWLING GREEN, KY	BLANK0000087457	441.6
No	WVTN-LD	D29	LD	LIC	CORBIN, KY	BLANK0000080149	346.3
No	WWPB	D29	DT	LIC	HAGERSTOWN, MD	BLANK0000114259	447.1
No	W09CK	D29+	LD	APP	FLINT, MI	BLANK0000071798	353.9
No	WLNM-LD	D29	LD	CP	LANSING, MI	BLANK0000054650	322.2
No	WNEO	D29	DT	CP	ALLIANCE, OH	BLANK0000034304	216.8
No	W29EL-D	D29	LD	CP	LIMA, OH	BNPDTL20100609AFJ	152.3
No	WAMS-LD	D29z	LD	LIC	Minster/New Bremen, OH	BLANK0000106606	107.8
No	WIVN-LD	D29	LD	LIC	NEWCOMERSTOWN, OH	BLDTL20101222AAZ	148.5
Yes	WPTO	D29	DT	LIC	OXFORD, OH	BLANK0000113643	150.8
No	WGTE-TV	D29	DT	LIC	TOLEDO, OH	BLEDT20031110AKO	184.2
No	WWAT-CD	D29	DC	LIC	CHARLEROI, PA	BLANK0000101490	275.1
No	WJAC-TV	D29	LD	LIC	JOHNSTOWN, PA	BLCDT20130416AAU	383.6
No	WIIC-LD	N29+	TX	LIC	PITTSBURGH, PA	BLTTL19981230JB	277.9
No	WKOP-TV	D29	DT	LIC	KNOXVILLE, TN	BLANK0000081273	451.2
No	WCYB-TV	D29	LD	LIC	BRISTOL, VA	BLANK0000010637	406.9
Yes	WCHS-TV	D29	DT	LIC	CHARLESTON, WV	BLANK0000059340	209.7
No	W29FK-D	D29	LD	CP	CLARKSBURG, WV	BLANK0000074534	260.7
No	W29EJ-D	D29	LD	CP	PARKERSBURG, WV	BNPDTL20101004ABC	162.5
No	DW29DP-D	D29	LD	APP	WELCH, WV	BLDTT20130215AAE	318.3
No	WKMR	D30	DT	LIC	MOREHEAD, KY	BLANK0000075044	204.6
No	WHIZ-TV	D30	DT	LIC	ZANESVILLE, OH	BLANK0000099987	102.9
No	WWRD-LP	N32+	TX	LIC	DAYTON, OH	BLTTL20071011AAP	84.6
No	WQIZ-LP	N33+	TX	LIC	ASHLAND, OH	BLTTL20020211ABL	110.4

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No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D29
       Mask: Full Service
   Latitude:  40  0 36.70 N (NAD83)
  Longitude:  83 11 18.80 W
Height AMSL: 350.0 m
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       HAAT: 73.8 m
   Peak ERP: 15.0 kW
    Antenna: PSILP12AH 90.0 deg
Elev Pattrn: Generic

50.2 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg   15.0 kW    62.2 m   38.2 km
 45.0        3.99       80.4     34.5
 90.0       0.878      100.2     29.3
135.0        3.99       88.3     35.6
180.0        15.0       71.1     39.6
225.0        4.32       64.8     32.6
270.0       0.983       60.3     24.6
315.0        4.32       63.4     32.4

Proposal 25.23 dBu contour does not cross Canadian border
Distance to Canadian border: 190.1 km

Distance to Mexican border: 1999.9 km

Conditions at FCC monitoring station: Allegan MI
Bearing: 322.2 degrees   Distance: 369.5 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 277.6 degrees   Distance: 1869.3 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%


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Interference to BLANK0000113643 LIC scenario 1

             Call      Chan  Svc Status  City, State              File Number             Distance
Desired:     WPTO      D29   DT  LIC     OXFORD, OH               BLANK0000113643

Undesireds:  W29EG-D   D29   LD  LIC     COLUMBUS, OH             BLANK0000114544         150.8 km
             WIPX-TV   D28   DT  LIC     BLOOMINGTON, IN          BLANK0000106045         143.4
             WLEX-TV   D28   DT  LIC     LEXINGTON, KY            BLANK0000087372         121.7
             WSYX      D28   DT  LIC     COLUMBUS, OH             BLANK0000087264         157.2
             WJYL-CD   D29   DC  LIC     JEFFERSONVILLE, IN       BLANK0000087052         141.1
             WSBT-TV   D29   DT  LIC     SOUTH BEND, IN           BLANK0000087455         312.0
             WKGB-TV   D29   DT  LIC     BOWLING GREEN, KY        BLANK0000087457         292.0
             WNEO      D29   DT  CP      ALLIANCE, OH             BLANK0000034304         365.6
             WGTE-TV   D29   DT  LIC     TOLEDO, OH               BLEDT20031110AKO        296.3
             WCHS-TV   D29   DT  LIC     CHARLESTON, WV           BLANK0000059340         240.5

        Service area       Terrain-limited       IX-free, before        IX-free, after    Percent New IX
 21977.5   2,961,080   21713.4   2,949,597   20776.5   2,921,011   20742.8   2,919,965     0.16     0.04

Undesired                        Total IX     Unique IX, before      Unique IX, after
W29EG-D D29 LD LIC        93.2       4,525                           33.6       1,046
WIPX-TV D28 DT LIC        10.9          15       5.0          10       5.0          10
WLEX-TV D28 DT LIC        12.0          73       2.0           0       2.0           0
WSYX D28 DT LIC            1.0           0       0.0           0       0.0           0
WJYL-CD D29 DC LIC       520.4       4,954     499.5       4,687     498.5       4,671
WSBT-TV D29 DT LIC        24.0       5,127      17.0         311      17.0         311
WKGB-TV D29 DT LIC         1.0           0       0.0           0       0.0           0
WNEO D29 DT CP             4.0         495       0.0           0       0.0           0
WGTE-TV D29 DT LIC         2.0         495       0.0           0       0.0           0
WCHS-TV D29 DT LIC       405.6      23,573     374.5      18,422     321.9      16,415

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Exhibit E-2 - TVStudy Interference Study

Interference to BLANK0000113643 LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WPTO	D29	DT	LIC	OXFORD, OH	BLANK0000113643	
Undesireds:	W29EG-D	D29	LD	LIC	COLUMBUS, OH	BLANK0000114544	150.8 km
	WIPX-TV	D28	DT	LIC	BLOOMINGTON, IN	BLANK0000106045	143.4
	WLEX-TV	D28	DT	LIC	LEXINGTON, KY	BLANK0000087372	121.7
	WSYX	D28	DT	LIC	COLUMBUS, OH	BLANK0000087264	157.2
	WJYL-CD	D29	DC	LIC	JEFFERSONVILLE, IN	BLANK0000087052	141.1
	WSBT-TV	D29	DT	LIC	SOUTH BEND, IN	BLANK0000087455	312.0
	WKGB-TV	D29	DT	LIC	BOWLING GREEN, KY	BLANK0000087457	292.0
	WNEO	D29	DT	BL	ALLIANCE, OH	DTVBL49439	365.6
	WGTE-TV	D29	DT	LIC	TOLEDO, OH	BLEDT20031110AKO	296.3
	WCHS-TV	D29	DT	LIC	CHARLESTON, WV	BLANK0000059340	240.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
21977.5	2,961,080	21713.4	2,949,597	20776.5	2,921,011	20742.8	2,919,965	0.16	0.04

Undesired	Total IX		Unique IX, before		Unique IX, after	
W29EG-D D29 LD LIC	93.2	4,525			33.6	1,046
WIPX-TV D28 DT LIC	10.9	15	5.0	10	5.0	10
WLEX-TV D28 DT LIC	12.0	73	2.0	0	2.0	0
WSYX D28 DT LIC	1.0	0	0.0	0	0.0	0
WJYL-CD D29 DC LIC	520.4	4,954	499.5	4,687	498.5	4,671
WSBT-TV D29 DT LIC	24.0	5,127	17.0	311	17.0	311
WKGB-TV D29 DT LIC	1.0	0	0.0	0	0.0	0
WNEO D29 DT BL	3.0	495	0.0	0	0.0	0
WGTE-TV D29 DT LIC	2.0	495	1.0	0	0.0	0
WCHS-TV D29 DT LIC	405.6	23,573	374.5	18,422	321.9	16,415

Interference to BLANK0000059340 LIC scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WCHS-TV	D29	DT	LIC	CHARLESTON, WV	BLANK0000059340	
Undesireds:	W29EG-D	D29	LD	LIC	COLUMBUS, OH	BLANK0000114544	209.7 km
	WWPB	D29	DT	LIC	HAGERSTOWN, MD	BLANK0000114259	366.6
	WXLV-TV	D29	DT	LIC	WINSTON-SALEM, NC	BLCDT20050624ABB	337.1
	WNEO	D29	DT	CP	ALLIANCE, OH	BLANK0000034304	290.4
	WPTO	D29	DT	LIC	OXFORD, OH	BLANK0000113643	240.5
	WKOP-TV	D29	DT	LIC	KNOXVILLE, TN	BLANK0000081273	323.9
	WKMR	D30	DT	LIC	MOREHEAD, KY	BLANK0000075044	133.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
38606.0	1,355,524	36287.6	1,276,039	35861.9	1,255,050	35857.0	1,254,886	0.01	0.01

Undesired	Total IX		Unique IX, before		Unique IX, after	
W29EG-D D29 LD LIC	20.0	638			5.0	164
WWPB D29 DT LIC	8.0	49	5.0	49	5.0	49
WXLV-TV D29 DT LIC	20.3	344	16.2	344	16.2	344
WNEO D29 DT CP	176.9	16,190	144.1	11,754	143.1	11,725
WPTO D29 DT LIC	198.9	7,970	144.9	3,203	135.9	2,993
WKOP-TV D29 DT LIC	14.2	77	9.1	77	9.1	77
WKMR D30 DT LIC	69.5	1,126	47.3	795	47.3	795

Interference to BLANK0000059340 LIC scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WCHS-TV	D29	DT	LIC	CHARLESTON, WV	BLANK0000059340	
Undesireds:	W29EG-D	D29	LD	LIC	COLUMBUS, OH	BLANK0000114544	209.7 km
	WWPB	D29	DT	LIC	HAGERSTOWN, MD	BLANK0000114259	366.6
	WXLV-TV	D29	DT	LIC	WINSTON-SALEM, NC	BLCDT20050624ABB	337.1
	WNEO	D29	DT	BL	ALLIANCE, OH	DTVBL49439	290.4
	WPTO	D29	DT	LIC	OXFORD, OH	BLANK0000113643	240.5
	WKOP-TV	D29	DT	LIC	KNOXVILLE, TN	BLANK0000081273	323.9
	WKMR	D30	DT	LIC	MOREHEAD, KY	BLANK0000075044	133.5

Exhibit E-2 - TVStudy Interference Study

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
38606.0	1,355,524	36287.6	1,276,039	35892.7	1,257,178	35887.8	1,257,014	0.01	0.01

Undesired		Total IX		Unique IX, before		Unique IX, after	
W29EG-D D29 LD LIC	20.0	638				5.0	164
WWPB D29 DT LIC	8.0	49	5.0	49	5.0	49	
WXLV-TV D29 DT LIC	20.3	344	16.2	344	16.2	344	
WNEO D29 DT BL	142.1	13,605	113.3	9,626	112.3	9,597	
WPTO D29 DT LIC	198.9	7,970	148.9	3,660	138.9	3,450	
WKOP-TV D29 DT LIC	14.2	77	9.1	77	9.1	77	
WKMR D30 DT LIC	69.5	1,126	47.3	795	47.3	795	

Interference to proposal scenario 1
27.31% interference received

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W29EG-D	D29	LD	LIC	COLUMBUS, OH	BLANK0000114544	
Undesireds:	WSYX	D28	DT	LIC	COLUMBUS, OH	BLANK0000087264	16.4 km
	WNEO	D29	DT	CP	ALLIANCE, OH	BLANK0000034304	216.8
	WPTO	D29	DT	LIC	OXFORD, OH	BLANK0000113643	150.8
	WGTE-TV	D29	DT	LIC	TOLEDO, OH	BLEDT20031110AKO	184.2

Service area		Terrain-limited		IX-free		Percent IX	
3526.9	1,263,683	3526.9	1,263,683	2314.1	918,561	34.39	27.31

Undesired	Total IX		Unique IX		Prcnt Unique IX	
WSYX D28 DT LIC	1212.8	345,122	1205.7	340,839	34.19	26.97
WNEO D29 DT CP	1.0	0	0.0	0	0.00	0.00
WPTO D29 DT LIC	6.0	4,283	0.0	0	0.00	0.00
WGTE-TV D29 DT LIC	1.0	0	0.0	0	0.00	0.00