

ENGINEERING STATEMENT  
APPLICATION FOR A DTV  
CONSTRUCTION PERMIT FOR  
AN EXISTING LOW POWER TELEVISION STATION  
W45CI, ASHLAND, WISCONSIN  
CHANNEL 45 9.332 KW MAX ERP 283.7 METERS RC/AMSL

MARCH 2006

COHEN, DIPPELL AND EVERIST, P.C.  
CONSULTING ENGINEERS  
RADIO AND TELEVISION  
WASHINGTON, D.C.

COHEN, DIPPELL AND EVERIST, P. C.


City of Washington            )  
  ) ss  
District of Columbia         )

Ryan Felmlee, being duly sworn upon his oath, deposes and states that:

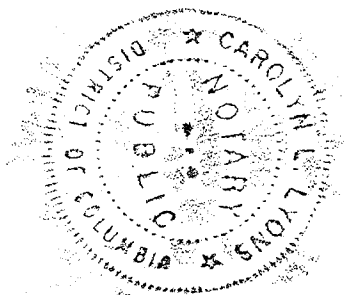
He is a graduate electrical engineer of the Pennsylvania State University, has successfully completed the Engineer-In-Training examination ("EIT") in the State of Virginia, and is a staff engineer of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

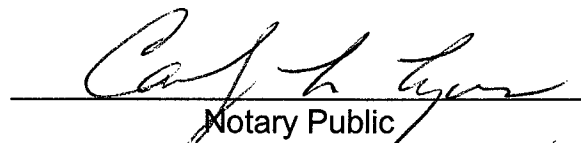
That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

  
\_\_\_\_\_  
Ryan Felmlee  
District of Columbia

Subscribed and sworn to before me this 29<sup>th</sup> day of March, 2006.



  
\_\_\_\_\_  
Notary Public

My Commission Expires: 2/28/2008

### INTRODUCTION

This engineering statement has been prepared on behalf of KQDS Acquisition, Corp., licensee of LPTV station W45CI, Ashland, Wisconsin. This statement supports the licensee's request to convert to DTV operation on the currently licensed analog Channel 45, commonly referred to as "flash-cut" with a DTV effective radiated power ("ERP") of 9.332 kW at a radiation center above mean sea level ("RCAMSL") of 283.7 meters.

### TRANSMITTER SITE

The existing antenna will be utilized and no significant alteration of the tower is proposed. The existing tower is located 3.0 km east of the center of Ashland, Wisconsin, and 0.71 km east of the intersection of Jones Road and Odanah Road (County Highway 4). There is no change in transmitter site. The geographic coordinates of the site follow below.

North Latitude: 46° 35' 24"

West Longitude: 90° 50' 06"

NAD-27

### ELEVATION DATA

Elevation of site above mean sea level	213.4 meters (700 feet)
Center of radiation of antenna above ground level	71.6 meters (235 feet)
Center of radiation of antenna above mean sea level	283.7 meters (931 feet)
Overall height of tower above ground level	128 meters (420 feet)

The Antenna Structure Registration Number (“ASRN”) for the existing tower is 1200096.

#### EQUIPMENT DATA

Transmitter:	Type-approved
Transmission Line:	Andrew, Type HJ7-50A, 1-5/8", 86.9 meters (285 feet) with 68.5% efficiency
Antenna:	Dielectric, TLP16-B with maximum gain of 14.35 dB and 1.0° electrical beam tilt

#### POWER DATA

Transmitter:	0.500 kW	-3.01 dBk
Transmission Line Loss:	0.157 kW	1.64 dB
Input Into Antenna:	0.343 kW	-4.65 dBk
Antenna Gain:	27	14.35 dB
ERP:	9.332 kW	9.70 dBk

As indicated above, the transmitter with typical power output of 0.5 kW will deliver 0.343 kW to the input of the antenna. The antenna, having a maximum gain of 14.35 dB and an electrical beam tilt of 1.0°, will produce maximum ERP of 9.332 kW. A coverage map providing the protected contour of the proposed facility compared to the currently licensed operation of W45CI has been included as Exhibit E-1 of this report. The antenna elevation pattern and associated tabulation and the horizontal pattern and accompanying tabulation are on file at the Commission as this antenna make and model has been designated as “Off-the-Shelf”, and is the currently licensed antenna for W45CI with no alterations proposed.

### OTHER BROADCAST FACILITIES

A brief analysis was completed to determine the presence of stations in the vicinity of the W45CI tower using the March 17, 2006, data contained within the Commission's Consolidated Database System ("CDBS"). Within 500 meters of the proposed site, there is one authorized LPFM radio station, no authorized DTV and NTSC television stations, and no other low-power analog television and television translator stations aside from W45CI. There is one AM facility within 3.2 km of the existing tower. Although no adverse technical affects are expected due to the proposed changes, the licensee will take measures to resolve any problems proven to be related to the changes proposed in this application.

### Interference Analysis

A study of predicted interference caused by the proposed W45CI low-power digital operation has been performed using the Longley-Rice program for which the source data has been posted by the Commission on its website at [http://www.fcc.gov/oet/dtv/dtv\\_apps.html](http://www.fcc.gov/oet/dtv/dtv_apps.html). The FCC's FORTRAN-77 code was modified only to the extent necessary (primarily input/output handling) for the program to run on a Microsoft Windows XP/Intel platform. Comparison of service/interference areas and population indicates this model closely matches the FCC's digital low-power TV/translator evaluation program. Best efforts have been made to use data and calculation identical to the FCC's program. The model employs the Longley-Rice propagation methodology and evaluates in grid cells of approximately 1 sq. km. Using 3-second terrain data sampled approximately every 1.0 km at one-degree azimuth intervals with 1990 census centroids, all studies are based upon data in the current CDBS database update of the FCC's engineering database. A Longley-Rice study was performed with the proposed W45CI

low-power digital facilities and all relevant stations listed in the FCC database as of March 16, 2006. The study results and the included stations are listed in Exhibit E-2.

#### Other Licensed and Broadcast Facilities

No adverse technical effect is anticipated by the proposed DTV operation to any other FCC licensed facility. If required, the licensee will install filters or take other measures as necessary to resolve the problem.

#### FCC Rule, Section 1.1307

The proposed 9.332 kW directional operation will utilize a Dielectric, Type TLP16-B antenna (or equivalent) described above with a center of radiation above ground of 71.6 meters. The proposed antenna is side-mounted on an existing tower with an overall height of 128 meters above ground. The proposed digital operation of W45CI will create a radiofrequency field level of  $4.0 \mu\text{W}/\text{cm}^2$  at the base of the tower. This level is less than 1.0% of the Maximum Permissible Exposure ("MPE") limit for the general population and uncontrolled environment.

The proposed operation of W45CI is less than 100 watts maximum ERP; therefore, based upon the current OET Bulletin No. 65, Edition 97-01 dated August 1997 and Supplement A, this proposal is exempt from demonstrating compliance with the FCC radiofrequency field ("RFF") guidelines under Part 74, Subpart G, and the RFF element of Section 1.1307 of the FCC Rules.

Authorized personnel and rigging contractors will be alerted to the potential zone of high field levels on the tower, and if necessary, the station will operate with reduced power or terminate the operation of the transmitter as appropriate when it is necessary for authorized personnel or contractors to perform work on or near the tower. Workers and the general public, therefore, will not be subjected to RFF levels in excess of the current FCC guidelines.

### Environmental Assessment

An environmental assessment (“EA”) is categorically excluded under Section 1.1306 of the FCC Rules and Regulations as the tower was constructed prior to the requirements specified in WT Docket No. 03-128 and the applicant indicates:

- (a)(1) The existing tower is not located in an officially designated wilderness area.
- (a)(2) The existing tower is not located in an officially designated wildlife preserve.
- (a)(3) The proposed facilities will not affect any listed threatened or endangered species or habitats.
- (a)(3)(ii) The proposed facilities will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.
- (a)(4) The proposed facilities located on a tower which was built prior to the adoption of WT Docket No. 03-128 and is grandfathered and has not affected any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
- (a)(5) The existing tower is not located near any known Indian religious sites.
- (a)(6) The existing tower is not located in a flood plain.
- (a)(7) The installation of the DTV facilities on an existing tower will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) It is not proposed to equip the tower with high intensity white lights unless required by the FAA.
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines contained in OET Bulletin No. 65, Edition 97-01, dated August 1997 and Supplement A.

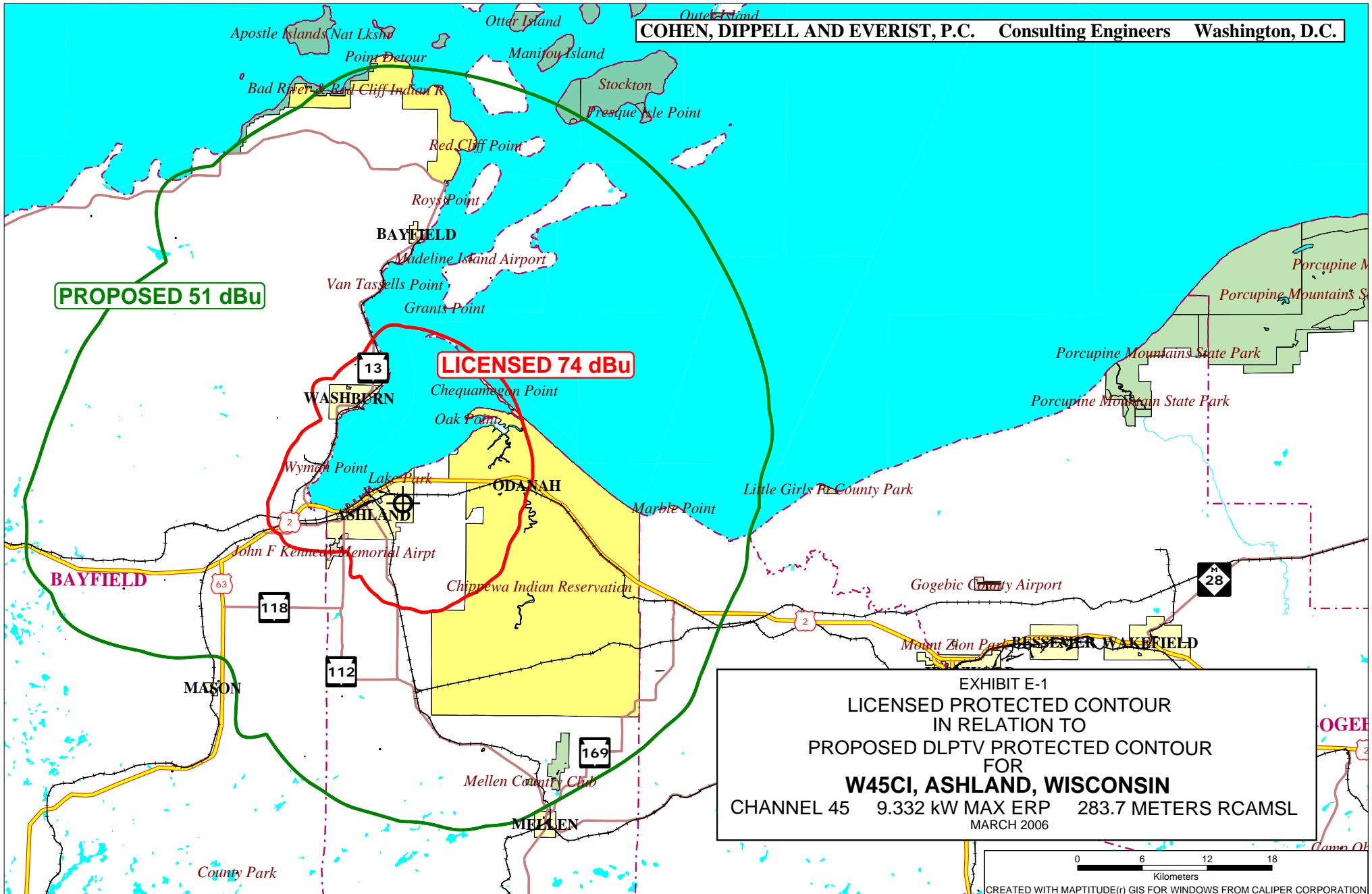




EXHIBIT E-2

DLPTV ANALYSIS RESULTS

FOR THE PROPOSED DIGITAL “FLASH-CUT”

OPERATION OF

W45CI, ASHLAND, WISCONSIN

Exhibit E-2.txt

1990 Census data selected

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 03-30-2006 Time: 16:19:00

Record Selected for Analysis

W45CI BLTTL -20060314TOM ASHLAND WI US  
Channel 45 ERP 9.332 kW HAAT 69 m RCAMSL 283 m  
Latitude 46 -35-24 Longitude 90 -50-6  
Status LIC Zone Border C Offset -  
Dir Antenna Make CDB Model 00000000000941 Beam tilt N Ref Azimuth 330  
Last update Cutoff date 18991231 Docket  
Comments  
Applicant KQDS ACQUISITION CORP.

Cell Size for Service Analysis 1.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Not full service station

Facility meets maximum power limit

Azimuth (Deg)	ERP (kW)	HAAT (m)	51.0 dBu F(50,90) (km)
0.0	6.491	100.0	38.5
45.0	2.646	97.8	33.8
90.0	2.000	77.6	29.8
135.0	2.757	63.1	29.3
180.0	2.792	52.3	27.3
225.0	3.576	33.0	23.3
270.0	5.028	74.0	33.8
315.0	8.591	46.5	31.4

Contour Overlap to Proposed Station

Contour Overlap Evaluation to Proposed Station Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountain

Proposed facility is within the Canadian coordination distance  
Distance to border = 167.0km

Proposed facility is beyond the Mexican coordination distance

Exhibit E-2.txt

Proposed station is OK toward AM broadcast stations

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Start of Interference Analysis

Channel	Proposed Station	Call	City/State	ARN	
45	W45CI	ASHLAND WI	BLTTL	20060314TOM	

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
31	K31HF	ASHLAND WI	16.4	CP	BNPTT	-20000809AAR
31	K31GH	HAYWARD WI	79.0	LIC	BLTTL	-20020729AAS
41	K58CM	DULUTH MN	100.4	APP	BPTT	-20030616ABI
45	NEW	GLADSTONE MI	302.9	APP	BNPTTL	-20000830AQV
45	NEW	MARQUETTE MI	259.0	APP	BNPTTL	-20000830AQX
45	NEW	MARQUETTE MI	256.4	APP	BNPTTL	-20000830AHR
45	NEW	HIBBING MN	183.7	APP	BNPTTL	-20000830BJS
45	NEW	INTERNATIONAL FALLS MN	288.7	APP	BNPTTL	-20000831BTY
45	KSTC-TV	MINNEAPOLIS MN	246.3	PRTCT	BMPCDT	-20020306ABH
45	KSTC-TV	MINNEAPOLIS-ST. PAUL MN	246.3	LIC	BLCT	-20020318AAJ
45	K45FR	OLIVIA MN	373.8	LIC	BLTTL	-20030110ACY
45	W45CF	ELK MOUND WI	194.4	LIC	BLTTL	-20041021ACA
45	W45CD	FENCE WI	207.6	APP	BDFCDTT	-20060209ABR
45	W45CD	FENCE WI	208.2	CP	BPTT	-20031216ABE
45	W45CD	FENCE WI	208.2	LIC	BLTT	-20050728AAM
46	NEW	CLOQUET MN	124.6	APP	BNPTTL	-20000831BQU
46	NEW	DULUTH MN	99.4	APP	BNPTTL	-20000830BSZ
46	NEW	DULUTH MN	100.0	APP	BNPTTL	-20000831BUH
46	NEW	DULUTH MN	97.7	APP	BNPTTL	-20000828AWR
46	NEW	DULUTH MN	100.8	APP	BNPTTL	-20000807ACB
46	NEW	DULUTH MN	100.7	APP	BNPTTL	-20000802ACT
46	NEW	DULUTH MN	97.7	APP	BNPTTL	-20000828AOV
46	WTPX	ANTIGO WI	200.8	LIC	BMLCDT	-20041015ADT
48	K48IX	CLOQUET MN	124.6	CP	BNPTTL	-20000831BQV
48	K48JF	DULUTH MN	88.9	CP	BNPTTL	-20000831CKR
48	NEW	DULUTH MN	100.4	APP	BNPTTL	-20000830BJN
48	NEW	DULUTH MN	99.4	APP	BNPTTL	-20000830BCY
48	NEW	DULUTH MN	97.7	APP	BNPTTL	-20000828AWS
48	NEW	DULUTH MN	97.7	APP	BNPTTL	-20000828AOU
52	K52IM	TOFTE MN	126.0	CP	BNPTTL	-20000831BIN

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Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
31	K31HF	ASHLAND WI	BNPTT	-20000809AAR

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
31	WRPT	HIBBING MN	167.3	PRTCT	BNPEDT	-20030605AFB
31	K31GH	HAYWARD WI	83.4	LIC	BLTTL	-20020729AAS

## Exhibit E-2.txt

31	WHLA-TV	LA CROSSE WI	322.2	LIC	BMLET	-20041013AAM
33	KDLH	DULUTH MN	86.7	CP	BPCDT	-19991028ADK
33	KDLH	DULUTH MN	86.7	PRTCT	BDTV	-464707
33	KDLH-DT	DULUTH MN	86.7	PLN	DTVPLN	-DTVP0854
38	WDSE-DT	DULUTH MN	86.9	PLN	DTVPLN	-DTVP0994
38	WDSE-TV	DULUTH MN	86.9	CP MOD	BMPEDT	-20000501AIO
45	W45CI	ASHLAND WI	16.4	LIC	BLTTL	-20060314TOM
45	W45CI	ASHLAND WI	16.4	LIC	BLTTL	-20030108ABR

Proposal causes no interference

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## Analysis of Interference to Affected Station 2

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
31	K31GH	HAYWARD WI	BLTTL -20020729AAS

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
27	WHWC-DT	MENOMONIE WI	111.6	PLN	DTVPLN -DTVP0657
31	KWCM-DT	APPLETON MN	369.2	PLN	DTVPLN -DTVP0779
31	KWCM-TV	APPLETON MN	369.2	CP	BPEDT -20000501AIK
31	WRPT	HIBBING MN	194.0	PRTCT	BNPEDT -20030605AFB
31	WDMI-LP	MINNEAPOLIS MN	184.6	CP	BPTTL -20040428ABC
31	K31HF	ASHLAND WI	83.4	CP	BNPTT -20000809AAR
31	WHLA-TV	LA CROSSE WI	243.8	LIC	BMLET -20041013AAM
33	KDLH	DULUTH MN	103.4	CP	BPCDT -19991028ADK
33	KDLH	DULUTH MN	103.4	PRTCT	BDTV -464707
33	KDLH-DT	DULUTH MN	103.4	PLN	DTVPLN -DTVP0854
38	WDSE-DT	DULUTH MN	104.0	PLN	DTVPLN -DTVP0994
38	WDSE-TV	DULUTH MN	104.0	CP MOD	BMPEDT -20000501AIO
45	W45CI	ASHLAND WI	79.0	LIC	BLTTL -20060314TOM
45	W45CI	ASHLAND WI	79.0	LIC	BLTTL -20030108ABR

Proposed station is beyond the site to  
nearest cell evaluation distance

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## Analysis of Interference to Affected Station 3

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
41	K58CM	DULUTH MN	BPTT -20030616ABI

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
33	KDLH	DULUTH MN	0.0	CP	BPCDT -19991028ADK
33	KDLH	DULUTH MN	0.0	PRTCT	BDTV -464707
33	KDLH-DT	DULUTH MN	0.0	PLN	DTVPLN -DTVP0854
38	WDSE-DT	DULUTH MN	0.8	PLN	DTVPLN -DTVP0994
38	WDSE-TV	DULUTH MN	0.7	CP MOD	BMPEDT -20000501AIO

## Exhibit E-2.txt

40	NEW	DULUTH MN	6.3	APP	BNPTTL	-20000828AOT
41	NEW	GRAND RAPIDS MN	106.8	APP	BNPTTL	-20000830BUZ
41	KPXM	ST. CLOUD MN	198.2	LIC	BLCT	-19850822KK
41	WKBT	LACROSSE WI	305.6	CP MOD	BMPCDT	-20040812AAY
43	WDIO-DT	DULUTH MN	0.2	PLN	DTVPLN	-DTVP1167
43	WDIO-TV	DULUTH MN	0.3	CP	BPCDT	-19991027ABA
45	W45CI	ASHLAND WI	100.4	LIC	BLTTL	-20060314TOM
45	W45CI	ASHLAND WI	100.4	LIC	BLTTL	-20030108ABR

Proposed station is beyond the site to  
nearest cell evaluation distance

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## Analysis of Interference to Affected Station 4

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
45	NEW	GLADSTONE MI	BNPTTL -20000830AQV

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
45	WLLA	KALAMAZOO MI	387.7	CP	BPCDT -19991108AAD
45	WLLA-DT	KALAMAZOO MI	387.7	PLN	DTVPLN -DTVP1239
45	W45CI	ASHLAND WI	302.9	LIC	BLTTL -20060314TOM
45	W45CI	ASHLAND WI	302.9	LIC	BLTTL -20030108ABR
48	WJMN-DT	ESCANABA MI	30.9	PLN	DTVPLN -DTVP1326

Proposal causes no interference

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## Analysis of Interference to Affected Station 5

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
45	NEW	MARQUETTE MI	BNPTTL -20000830AQX

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
45	W45CI	ASHLAND WI	259.0	LIC	BLTTL -20060314TOM
45	W45CI	ASHLAND WI	259.0	LIC	BLTTL -20030108ABR
48	WJMN-DT	ESCANABA MI	59.6	PLN	DTVPLN -DTVP1326

Proposal causes no interference

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## Analysis of Interference to Affected Station 6

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
45	NEW	MARQUETTE MI	BNPTTL -20000830AHR

Exhibit E-2.txt

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
45	W45CI	ASHLAND WI	256.4	LIC	BLTTL	-20060314TOM
45	W45CI	ASHLAND WI	256.4	LIC	BLTTL	-20030108ABR
48	WJMN-DT	ESCANABA MI	58.9	PLN	DTVPLN	-DTVP1326

Proposal causes no interference

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Analysis of Interference to Affected Station 7

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
45	NEW	HIBBING MN	BNPTTL	-20000830BJS

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
38	WDSE-DT	DULUTH MN	92.6	PLN	DTVPLN	-DTVP0994
38	WDSE-TV	DULUTH MN	92.6	CP MOD	BMPEDT	-20000501AIO
38	881108KG	WALKER MN	126.6	APP	BPCT	-19881108KG
43	WDIO-DT	DULUTH MN	93.0	PLN	DTVPLN	-DTVP1167
43	WDIO-TV	DULUTH MN	92.9	CP	BPCDT	-19991027ABA
45	KSTC-TV	MINNEAPOLIS MN	261.9	PRTCT	BMPCDT	-20020306ABH
45	KSTC-TV	MINNEAPOLIS-ST. PAUL MN	261.9	LIC	BLCT	-20020318AAJ
45	W45CI	ASHLAND WI	183.7	LIC	BLTTL	-20060314TOM
45	W45CI	ASHLAND WI	183.7	LIC	BLTTL	-20030108ABR

Proposal causes no interference

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Analysis of Interference to Affected Station 8

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
45	NEW	INTERNATIONAL FALLS MN	BNPTTL	-20000831BTY

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
44	NEW	INTERNATIONAL FALLS MN	6.5	APP	BNPTTL	-20000830ARC
45	KSTC-TV	MINNEAPOLIS MN	390.4	PRTCT	BMPCDT	-20020306ABH
45	KSTC-TV	MINNEAPOLIS-ST. PAUL MN	390.4	LIC	BLCT	-20020318AAJ
45	W45CI	ASHLAND WI	288.7	LIC	BLTTL	-20060314TOM
45	W45CI	ASHLAND WI	288.7	LIC	BLTTL	-20030108ABR

Proposal causes no interference

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Analysis of Interference to Affected Station 9

Exhibit E-2.txt

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
45	KSTC-TV	MINNEAPOLIS MN	BMPCDT	-20020306ABH

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
44	KSTC-TV	MINNEAPOLIS MN	0.0	CP MOD	BMPCDT	-20020306ABH
44	KVBM-DT	MINNEAPOLIS MN	0.0	PLN	DTVPLN	-DTVP1207
45	KIIN	IOWA CITY IA	398.8	CP	BPEDT	-20000406AAQ
45	KIIN-DT	IOWA CITY IA	398.8	PLN	DTVPLN	-DTVP1230
45	KSTC-TV	MINNEAPOLIS-ST. PAUL MN	0.0	LIC	BLCT	-20020318AAJ
45	W45CI	ASHLAND WI	246.3	LIC	BLTTL	-20060314TOM
46	KXLT-DT	ROCHESTER MN	127.5	PLN	DTVPLN	-DTVP1265
46	KXLT-TV	ROCHESTER MN	165.1	PRTCT	BPCDT	-19991026ABN

Proposal causes no interference

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Analysis of Interference to Affected Station 10

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
45	KSTC-TV	MINNEAPOLIS-ST. PAUL MN	BLCT	-20020318AAJ

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
44	KSTC-TV	MINNEAPOLIS MN	0.0	CP MOD	BMPCDT	-20020306ABH
44	KVBM-DT	MINNEAPOLIS MN	0.0	PLN	DTVPLN	-DTVP1207
45	KIIN	IOWA CITY IA	398.8	CP	BPEDT	-20000406AAQ
45	KIIN-DT	IOWA CITY IA	398.8	PLN	DTVPLN	-DTVP1230
45	KSTC-TV	MINNEAPOLIS MN	0.0	PRTCT	BMPCDT	-20020306ABH
45	W45CI	ASHLAND WI	246.3	LIC	BLTTL	-20060314TOM
46	KXLT-DT	ROCHESTER MN	127.5	PLN	DTVPLN	-DTVP1265
46	KXLT-TV	ROCHESTER MN	165.1	PRTCT	BPCDT	-19991026ABN
48	WEUX	CHIPPEWA FALLS WI	116.2	LIC	BLCT	-19981224KJ
49	WEUX-DT	CHIPPEWA FALLS WI	116.1	PLN	DTVPLN	-DTVP1366

Proposal causes no interference

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Analysis of Interference to Affected Station 11

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
45	K45FR	OLIVIA MN	BLTTL	-20030110ACY

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
38	KEYC-DT	MANKATO MN	98.5	PLN	DTVPLN	-DTVP0995
38	KEYC-TV	MANKATO MN	98.5	CP MOD	BMPCDT	-20010223AAQ
45	NEW	APPLETON MN	99.9	APP	BNPTTL	-20000831BXN
45	KSTC-TV	MINNEAPOLIS MN	140.6	PRTCT	BMPCDT	-20020306ABH

## Exhibit E-2.txt

45	KSTC-TV	MINNEAPOLIS-ST. PAUL MN	140.6	LIC	BLCT	-20020318AAJ
45	W45CI	ASHLAND WI	373.8	LIC	BLTTL	-20060314TOM
45	W45CI	ASHLAND WI	373.8	LIC	BLTTL	-20030108ABR

Proposed station is beyond the site to  
nearest cell evaluation distance

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## Analysis of Interference to Affected Station 12

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
45	W45CF	ELK MOUND WI	BLTTL -20041021ACA

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
41	WKBT	LACROSSE WI	88.3	CP MOD	BMPCDT -20040812AAY
45	KIIN	IOWA CITY IA	351.7	CP	BPEDT -20000406AAQ
45	KIIN-DT	IOWA CITY IA	351.7	PLN	DTVPLN -DTVP1230
45	KSTC-TV	MINNEAPOLIS MN	138.9	PRTCT	BMPCDT -20020306ABH
45	KSTC-TV	MINNEAPOLIS-ST. PAUL MN	138.9	LIC	BLCT -20020318AAJ
45	W45CI	ASHLAND WI	194.4	LIC	BLTTL -20060314TOM
45	W45CI	ASHLAND WI	194.4	LIC	BLTTL -20030108ABR
46	KXLT-DT	ROCHESTER MN	123.0	PLN	DTVPLN -DTVP1265
49	WEUX-DT	CHIPPEWA FALLS WI	23.3	PLN	DTVPLN -DTVP1366
53	WKBT-DT	LA CROSSE WI	88.3	PLN	DTVPLN -DTVP1469del

Proposal causes no interference

#####

## Analysis of Interference to Affected Station 13

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
45	W45CD	FENCE WI	BDFCDTT -20060209ABR

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
45	KSTC-TV	MINNEAPOLIS MN	375.4	PRTCT	BMPCDT -20020306ABH
45	KSTC-TV	MINNEAPOLIS-ST. PAUL MN	375.4	LIC	BLCT -20020318AAJ
45	W45CI	ASHLAND WI	207.6	LIC	BLTTL -20060314TOM
45	W45CI	ASHLAND WI	207.6	LIC	BLTTL -20030108ABR
46	WTPX	ANTIGO WI	111.6	LIC	BMLCDT -20041015ADT
47	WLEF-DT	PARK FALLS WI	144.7	PLN	DTVPLN -DTVP1312
47	WLEF-TV	PARK FALLS WI	144.6	LIC	BLEDT -20040503AFO
48	WJMN-DT	ESCANABA MI	122.2	PLN	DTVPLN -DTVP1326

Proposal causes no interference

#####

## Analysis of Interference to Affected Station 14



Exhibit E-2.txt

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
45	W45CD	FENCE WI	BPTT	-20031216ABE

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
45	KSTC-TV	MINNEAPOLIS MN	375.2	PRTCT	BMPCDT	-20020306ABH
45	KSTC-TV	MINNEAPOLIS-ST. PAUL MN	375.2	LIC	BLCT	-20020318AAJ
45	W45CI	ASHLAND WI	208.2	LIC	BLTTL	-20060314TOM
45	W45CI	ASHLAND WI	208.2	LIC	BLTTL	-20030108ABR
46	WTPX	ANTIGO WI	110.7	LIC	BMLCDT	-20041015ADT
47	WLEF-DT	PARK FALLS WI	144.9	PLN	DTVPLN	-DTVP1312
47	WLEF-TV	PARK FALLS WI	144.8	LIC	BLEDT	-20040503AFO
48	WJMN-DT	ESCANABA MI	122.7	PLN	DTVPLN	-DTVP1326

Proposal causes no interference

#####

Analysis of Interference to Affected Station 15

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
45	W45CD	FENCE WI	BLTT	-20050728AAM

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
45	KSTC-TV	MINNEAPOLIS MN	375.2	PRTCT	BMPCDT	-20020306ABH
45	KSTC-TV	MINNEAPOLIS-ST. PAUL MN	375.2	LIC	BLCT	-20020318AAJ
45	W45CI	ASHLAND WI	208.2	LIC	BLTTL	-20060314TOM
45	W45CI	ASHLAND WI	208.2	LIC	BLTTL	-20030108ABR
46	WTPX	ANTIGO WI	110.7	LIC	BMLCDT	-20041015ADT
47	WLEF-DT	PARK FALLS WI	144.9	PLN	DTVPLN	-DTVP1312
47	WLEF-TV	PARK FALLS WI	144.8	LIC	BLEDT	-20040503AFO
48	WJMN-DT	ESCANABA MI	122.7	PLN	DTVPLN	-DTVP1326

Proposal causes no interference

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Analysis of Interference to Affected Station 16

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
46	NEW	CLOQUET MN	BNPTTL	-20000831BQU

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
38	WDSE-DT	DULUTH MN	24.6	PLN	DTVPLN	-DTVP0994
38	WDSE-TV	DULUTH MN	24.6	CP MOD	BMPEDT	-20000501AIO
43	WDIO-DT	DULUTH MN	24.7	PLN	DTVPLN	-DTVP1167
43	WDIO-TV	DULUTH MN	24.6	CP	BPCDT	-19991027ABA

## Exhibit E-2.txt

45	W45CI	ASHLAND WI	124.6	LIC	BLTTL	-20060314TOM
45	W45CI	ASHLAND WI	124.6	LIC	BLTTL	-20030108ABR
46	KLKS-LP	BREEZY POINT MN	139.1	CP	BPTTL	-20020701AAR
46	NEW	DULUTH MN	25.2	APP	BNPTTL	-20000830BSZ
46	NEW	DULUTH MN	25.2	APP	BNPTTL	-20000831BUH
46	NEW	DULUTH MN	27.0	APP	BNPTTL	-20000828AWR
46	NEW	DULUTH MN	24.5	APP	BNPTTL	-20000807ACB
46	NEW	DULUTH MN	24.5	APP	BNPTTL	-20000802ACT
46	NEW	DULUTH MN	27.0	APP	BNPTTL	-20000828AOV
46	KXLT-DT	ROCHESTER MN	304.2	PLN	DTVPLN	-DTVP1265
46	KXLT-TV	ROCHESTER MN	348.9	PRTCT	BPCDT	-19991026ABN
46	WTPX	ANTIGO WI	299.8	LIC	BMLCDT	-20041015ADT

Proposed station is beyond the site to  
nearest cell evaluation distance

#####

## Analysis of Interference to Affected Station 17

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
46	NEW	DULUTH MN	BNPTTL -20000830BSZ

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
38	WDSE-DT	DULUTH MN	6.3	PLN	DTVPLN -DTVP0994
38	WDSE-TV	DULUTH MN	6.3	CP MOD	BMPEDT -20000501AIO
43	WDIO-DT	DULUTH MN	5.7	PLN	DTVPLN -DTVP1167
43	WDIO-TV	DULUTH MN	5.8	CP	BPCDT -19991027ABA
45	W45CI	ASHLAND WI	99.4	LIC	BLTTL -20060314TOM
45	W45CI	ASHLAND WI	99.4	LIC	BLTTL -20030108ABR
46	NEW	CLOQUET MN	25.2	APP	BNPTTL -20000831BQU
46	KXLT-DT	ROCHESTER MN	299.9	PLN	DTVPLN -DTVP1265
46	KXLT-TV	ROCHESTER MN	345.2	PRTCT	BPCDT -19991026ABN
46	WTPX	ANTIGO WI	277.5	LIC	BMLCDT -20041015ADT

Proposal causes no interference

#####

## Analysis of Interference to Affected Station 18

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
46	NEW	DULUTH MN	BNPTTL -20000831BUH

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
38	WDSE-DT	DULUTH MN	0.7	PLN	DTVPLN -DTVP0994
38	WDSE-TV	DULUTH MN	0.7	CP MOD	BMPEDT -20000501AIO
43	WDIO-DT	DULUTH MN	0.6	PLN	DTVPLN -DTVP1167
43	WDIO-TV	DULUTH MN	0.7	CP	BPCDT -19991027ABA
45	W45CI	ASHLAND WI	100.0	LIC	BLTTL -20060314TOM

## Exhibit E-2.txt

45	W45CI	ASHLAND WI	100.0	LIC	BLTTL	-20030108ABR
46	NEW	CLOQUET MN	25.2	APP	BNPTTL	-20000831BQU
46	KXLT-DT	ROCHESTER MN	305.9	PLN	DTVPLN	-DTVP1265
46	KXLT-TV	ROCHESTER MN	351.2	PRTCT	BPCDT	-19991026ABN
46	WTPX	ANTIGO WI	281.1	LIC	BMLCDT	-20041015ADT

Proposal causes no interference

#####

## Analysis of Interference to Affected Station 19

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
46	NEW	DULUTH MN	BNPTTL -20000828AWR

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
38	WDSE-DT	DULUTH MN	7.0	PLN	DTVPLN -DTVP0994
38	WDSE-TV	DULUTH MN	7.0	CP MOD	BMPEDT -20000501AIO
43	WDIO-DT	DULUTH MN	6.5	PLN	DTVPLN -DTVP1167
43	WDIO-TV	DULUTH MN	6.6	CP	BPCDT -19991027ABA
45	W45CI	ASHLAND WI	97.7	LIC	BLTTL -20060314TOM
45	W45CI	ASHLAND WI	97.7	LIC	BLTTL -20030108ABR
46	NEW	CLOQUET MN	27.0	APP	BNPTTL -20000831BQU
46	KXLT-DT	ROCHESTER MN	299.5	PLN	DTVPLN -DTVP1265
46	KXLT-TV	ROCHESTER MN	344.9	PRTCT	BPCDT -19991026ABN
46	WTPX	ANTIGO WI	275.9	LIC	BMLCDT -20041015ADT

Proposal causes no interference

#####

## Analysis of Interference to Affected Station 20

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
46	NEW	DULUTH MN	BNPTTL -20000807ACB

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
38	WDSE-DT	DULUTH MN	0.4	PLN	DTVPLN -DTVP0994
38	WDSE-TV	DULUTH MN	0.3	CP MOD	BMPEDT -20000501AIO
43	WDIO-DT	DULUTH MN	0.3	PLN	DTVPLN -DTVP1167
43	WDIO-TV	DULUTH MN	0.2	CP	BPCDT -19991027ABA
45	W45CI	ASHLAND WI	100.8	LIC	BLTTL -20060314TOM
45	W45CI	ASHLAND WI	100.8	LIC	BLTTL -20030108ABR
46	NEW	CLOQUET MN	24.5	APP	BNPTTL -20000831BQU
46	KXLT-DT	ROCHESTER MN	305.8	PLN	DTVPLN -DTVP1265
46	KXLT-TV	ROCHESTER MN	351.1	PRTCT	BPCDT -19991026ABN
46	WTPX	ANTIGO WI	281.7	LIC	BMLCDT -20041015ADT

Proposal causes no interference

#####

Exhibit E-2.txt

Analysis of Interference to Affected Station 21

Analysis of current record

Channel	Call	City/State	Application Ref. No.
46	NEW	DULUTH MN	BNPTTL -20000802ACT

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
38	WDSE-DT	DULUTH MN	0.4	PLN	DTVPLN -DTVP0994
38	WDSE-TV	DULUTH MN	0.3	CP MOD	BMPEDT -20000501AIO
43	WDIO-DT	DULUTH MN	0.3	PLN	DTVPLN -DTVP1167
43	WDIO-TV	DULUTH MN	0.2	CP	BPCDT -19991027ABA
45	W45CI	ASHLAND WI	100.7	LIC	BLTTL -20060314TOM
45	W45CI	ASHLAND WI	100.7	LIC	BLTTL -20030108ABR
46	NEW	CLOQUET MN	24.5	APP	BNPTTL -20000831BQU
46	KXLT-DT	ROCHESTER MN	305.8	PLN	DTVPLN -DTVP1265
46	KXLT-TV	ROCHESTER MN	351.1	PRTCT	BPCDT -19991026ABN
46	WTPX	ANTIGO WI	281.7	LIC	BMLCDT -20041015ADT

Proposal causes no interference

#####

Analysis of Interference to Affected Station 22

Analysis of current record

Channel	Call	City/State	Application Ref. No.
46	NEW	DULUTH MN	BNPTTL -20000828AOV

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
38	WDSE-DT	DULUTH MN	7.0	PLN	DTVPLN -DTVP0994
38	WDSE-TV	DULUTH MN	7.0	CP MOD	BMPEDT -20000501AIO
43	WDIO-DT	DULUTH MN	6.5	PLN	DTVPLN -DTVP1167
43	WDIO-TV	DULUTH MN	6.6	CP	BPCDT -19991027ABA
45	W45CI	ASHLAND WI	97.7	LIC	BLTTL -20060314TOM
45	W45CI	ASHLAND WI	97.7	LIC	BLTTL -20030108ABR
46	NEW	CLOQUET MN	27.0	APP	BNPTTL -20000831BQU
46	KXLT-DT	ROCHESTER MN	299.5	PLN	DTVPLN -DTVP1265
46	KXLT-TV	ROCHESTER MN	344.9	PRTCT	BPCDT -19991026ABN
46	WTPX	ANTIGO WI	275.9	LIC	BMLCDT -20041015ADT

Proposal causes no interference

#####

Analysis of Interference to Affected Station 23

Analysis of current record

Channel	Call	City/State	Application Ref. No.
46	WTPX	ANTIGO WI	BMLCDT -20041015ADT

Stations Potentially Affecting This Station

Exhibit E-2.txt

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
45	W45CI	ASHLAND WI	200.8	LIC	BLTTL	-20060314TOM
46	KXLT-DT	ROCHESTER MN	258.2	PLN	DTVPLN	-DTVP1265
46	KXLT-TV	ROCHESTER MN	289.6	PRTCT	BPCDT	-19991026ABN
46	WDJT-DT	MILWAUKEE WI	248.4	PLN	DTVPLN	-DTVP1281
46	WDJT-TV	MILWAUKEE WI	248.4	CP MOD	BMPCDT	-20000419ABR
47	WMSN-TV	MADISON WI	222.4	LIC	BMLCT	-20010817AAS
47	WLEF-DT	PARK FALLS WI	117.2	PLN	DTVPLN	-DTVP1312
47	WLEF-TV	PARK FALLS WI	117.2	LIC	BLEDT	-20040503AFO

Proposed station is beyond the site to  
nearest cell evaluation distance

#####

Analysis of Interference to Affected Station 24

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
48	K48IX	CLOQUET MN	BNPTTL	-20000831BQV

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
45	W45CI	ASHLAND WI	124.6	LIC	BLTTL	-20060314TOM
45	W45CI	ASHLAND WI	124.6	LIC	BLTTL	-20030108ABR
48	K48IF	BRAINERD MN	141.0	LIC	BLTT	-20030917AEQ
48	K48JF	DULUTH MN	36.0	CP	BNPTTL	-20000831CKR
48	WEUX	CHIPPEWA FALLS WI	211.5	LIC	BLCT	-19981224KJ

Proposed station is beyond the site to  
nearest cell evaluation distance

#####

Analysis of Interference to Affected Station 25

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
48	K48JF	DULUTH MN	BNPTTL	-20000831CKR

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
45	W45CI	ASHLAND WI	88.9	LIC	BLTTL	-20060314TOM
45	W45CI	ASHLAND WI	88.9	LIC	BLTTL	-20030108ABR
48	WJMN-DT	ESCANABA MI	391.3	PLN	DTVPLN	-DTVP1326
48	K48IX	CLOQUET MN	36.0	CP	BNPTTL	-20000831BQV
48	WEUX	CHIPPEWA FALLS WI	194.8	LIC	BLCT	-19981224KJ

Proposed station is beyond the site to  
nearest cell evaluation distance

#####

Exhibit E-2.txt

Analysis of Interference to Affected Station 26

Analysis of current record

Channel	Call	City/State	Application Ref. No.
48	NEW	DULUTH MN	BNPTTL -20000830BJN

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
45	W45CI	ASHLAND WI	100.4	LIC	BLTTL -20060314TOM
45	W45CI	ASHLAND WI	100.4	LIC	BLTTL -20030108ABR
48	K48IX	CLOQUET MN	24.9	CP	BNPTTL -20000831BQV
48	WEUX	CHIPPEWA FALLS WI	206.7	LIC	BLCT -19981224KJ

Proposed station is beyond the site to  
nearest cell evaluation distance

#####

Analysis of Interference to Affected Station 27

Analysis of current record

Channel	Call	City/State	Application Ref. No.
48	NEW	DULUTH MN	BNPTTL -20000830BCY

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
45	W45CI	ASHLAND WI	99.4	LIC	BLTTL -20060314TOM
45	W45CI	ASHLAND WI	99.4	LIC	BLTTL -20030108ABR
48	K48IX	CLOQUET MN	25.2	CP	BNPTTL -20000831BQV
48	WEUX	CHIPPEWA FALLS WI	200.8	LIC	BLCT -19981224KJ

Proposed station is beyond the site to  
nearest cell evaluation distance

#####

Analysis of Interference to Affected Station 28

Analysis of current record

Channel	Call	City/State	Application Ref. No.
48	NEW	DULUTH MN	BNPTTL -20000828AWS

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
45	W45CI	ASHLAND WI	97.7	LIC	BLTTL -20060314TOM
45	W45CI	ASHLAND WI	97.7	LIC	BLTTL -20030108ABR
48	K48IX	CLOQUET MN	27.0	CP	BNPTTL -20000831BQV
48	WEUX	CHIPPEWA FALLS WI	200.0	LIC	BLCT -19981224KJ

# Exhibit E-2.txt

Proposed station is beyond the site to  
nearest cell evaluation distance

#####

## Analysis of Interference to Affected Station 29

### Analysis of current record

Channel	Call	City/State	Application Ref. No.
48	NEW	DULUTH MN	BNPTTL -20000828AOU

### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
45	W45CI	ASHLAND WI	97.7	LIC	BLTTL -20060314TOM
45	W45CI	ASHLAND WI	97.7	LIC	BLTTL -20030108ABR
48	K48IX	CLOQUET MN	27.0	CP	BNPTTL -20000831BQV
48	WEUX	CHIPPEWA FALLS WI	200.0	LIC	BLCT -19981224KJ

Proposed station is beyond the site to  
nearest cell evaluation distance

#####

## Analysis of Interference to Affected Station 30

### Analysis of current record

Channel	Call	City/State	Application Ref. No.
52	K52IM	TOFTE MN	BNPTTL -20000831BIN

### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
45	W45CI	ASHLAND WI	126.0	LIC	BLTTL -20060314TOM
45	W45CI	ASHLAND WI	126.0	LIC	BLTTL -20030108ABR

Proposed station is beyond the site to  
nearest cell evaluation distance

#####

## Analysis of Interference to Affected Station 31

### Analysis of current record

Channel	Call	City/State	Application Ref. No.
45	W45CI	ASHLAND WI	BLTTL -20060314TOM

### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
38	WDSE-DT	DULUTH MN	100.7	PLN	DTVPLN -DTVP0994
38	WDSE-TV	DULUTH MN	100.7	CP MOD	BMPEDT -20000501AIO
43	WDIO-DT	DULUTH MN	100.5	PLN	DTVPLN -DTVP1167

Exhibit E-2.txt

43	WDIO-TV	DULUTH MN	100.6	CP	BPCDT	-19991027ABA
45	KSTC-TV	MINNEAPOLIS MN	246.3	PRTCT	BMPCDT	-20020306ABH
45	KSTC-TV	MINNEAPOLIS-ST. PAUL MN	246.3	LIC	BLCT	-20020318AAJ
47	WLEF-DT	PARK FALLS WI	83.6	PLN	DTVPLN	-DTVP1312
47	WLEF-TV	PARK FALLS WI	83.7	LIC	BLEDT	-20040503AFO

Total scenarios = 1

Result key: 1  
 Scenario 1 Affected station 31  
 Before Analysis

Results for: 45A WI ASHLAND BLTTL 20060314TOM LIC  
 HAAT 69.0 m, ATV ERP 9.3 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	20025	2972.8
not affected by terrain losses	19985	2909.8
lost to NTSC IX	6	9.8
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	6	9.8

Potential Interfering Stations Included in above Scenario 1

45N MN MINNEAPOLIS-ST. PAUL BLCT 20020318AAJ LIC

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