

Federal Communications Commission

FCC MB - CDBS Electronic Filing

Account number: 432098

**Description: WLKR(AM) TRANSLATOR AMENDMENT TO SHORT FROM
AUCTION 100**

Application Reference Number: 20180126ABE

Successfully filed at May 30 2018 10:32AM

Based on the information supplied, no fee is required.

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NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided. See General Instruction J.

Section II - Legal

<p>1. Certification. Applicant certifies that it has answered each question in this application based on its review of the application instructions and worksheets. Applicant further certifies that where it has made an affirmative certification below, this certification constitutes its representation that the application satisfies each of the pertinent standards and criteria set forth in the application instructions and worksheets.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>												
<p>2. Applicant is:</p> <table border="1" style="width:100%"> <tr> <td><input type="radio"/> an individual</td> <td><input type="radio"/> a general partnership</td> <td><input checked="" type="radio"/> a for-profit corporation</td> </tr> <tr> <td><input type="radio"/> a limited partnership</td> <td><input type="radio"/> a not-for-profit corporation</td> <td><input type="radio"/> a limited liability company (LLC/LC)</td> </tr> <tr> <td colspan="3"><input type="radio"/> other</td> </tr> <tr> <td colspan="2">a. If "other", describe nature of applicant in an Exhibit.</td> <td>[Exhibit 2]</td> </tr> </table>		<input type="radio"/> an individual	<input type="radio"/> a general partnership	<input checked="" type="radio"/> a for-profit corporation	<input type="radio"/> a limited partnership	<input type="radio"/> a not-for-profit corporation	<input type="radio"/> a limited liability company (LLC/LC)	<input type="radio"/> other			a. If "other", describe nature of applicant in an Exhibit.		[Exhibit 2]
<input type="radio"/> an individual	<input type="radio"/> a general partnership	<input checked="" type="radio"/> a for-profit corporation											
<input type="radio"/> a limited partnership	<input type="radio"/> a not-for-profit corporation	<input type="radio"/> a limited liability company (LLC/LC)											
<input type="radio"/> other													
a. If "other", describe nature of applicant in an Exhibit.		[Exhibit 2]											
<p>3. a. Applicant certifies that it is not the licensee or permittee of the commercial primary station being rebroadcast and that neither it nor any parties to the application have any interest in or connection with the commercial primary station being rebroadcast. See 47 C.F.R. Section 74.1232(d).</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A See Explanation in [Exhibit 3]</p>												
<p>b. Applicant certifies that the FM translator's (a) 1mV/m coverage contour does not extend beyond the protected contour of the commercial FM primary station to be rebroadcast, or (b) entire 1mV/m coverage contour is contained within the greater of either: (i) the 2 mV/m daytime contour of the commercial AM primary station to be rebroadcast, or (ii) a 25-mile radius centered at the commercial AM primary station's transmitter site.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A See Explanation in [Exhibit 4]</p>												
<p>NOTE: If No to a. and b., and no waiver has been requested in an Exhibit, this application is unacceptable for filing. See 47 C.F.R. Section 74.1232(d).</p> <p>If Yes to (a) and No to (b) applicant is prohibited from receiving any support, before or after construction, either directly or indirectly from the commercial primary station being rebroadcast or from any person or entity having any interest whatsoever, or any connection with the primary FM station. Interested and connected parties include group owners, corporate parents, shareholders, officers, directors, employees, general and limited partners, family members and business associates. See 47 C.F.R. Section 74.1232(e).</p>													
<p>4. The applicant, if for a commercial FM translator station with a coverage contour extending beyond the protected contour of the commercial primary station being rebroadcast, certifies that it has not received any support, before or after constructing, directly or indirectly, from the licensee/permittee of the primary station or any person with an interest in or connection with the licensee or permittee of the primary station, except for technical assistance as provided for under 47 C.F.R. Section 74.1232(e).</p>	<p><input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A See Explanation in [Exhibit 5]</p>												
<p>5. For applicants proposing translator rebroadcasts that are not the licensee of the primary station, the applicant certifies that written authority has been obtained from the licensee of the station whose programs are to be retransmitted. If No, this application is unacceptable for filing.</p>	<p><input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A</p>												
<p>6. Character Issues. Applicant certifies that neither applicant nor any party to the application has or has had any interest in or connection with:</p> <p>a. any broadcast application in any proceeding where character issues were left</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 6]</p>												

<p>unresolved or were resolved adversely against the applicant or party to the application; or b. any pending broadcast application in which character issues have been raised.</p>	
<p>7. Adverse Findings. Applicant certifies that, with respect to the applicant, any party to the application, and any non-party equity owner in the applicant, no adverse finding has been made, nor has an adverse final action been taken by any court or administrative body in a civil or criminal proceeding brought under the provisions of any law related to the following: any felony; mass media-related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination.</p> <p>If the answer is "No," attach as an Exhibit a full disclosure concerning the persons and matters involved, including an identification of the court or administrative body and the proceeding (by dates and file numbers), and a description of the disposition of the matter. Where the requisite information has been earlier disclosed in connection with another application or as required by 47 C.F.R. Section 1.65, the applicant need only provide: (i) an identification of that previous submission by reference to the file number in the case of an application, the call letters of the station regarding which the application or Section 1.65 information was filed, and date of filing; and (ii) the disposition of the previously reported matter.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 7]</p>
<p>8. Alien Ownership and Control. Applicant certifies that it complies with the provisions of Section 310 of the Communications Act of 1934, as amended, relating to interests of aliens and foreign governments.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 8]</p>
<p>9. Program Service Certification. Applicant certifies that it is cognizant of and will comply with its obligations as a Commission licensee to present a program service responsive to the issues of public concern facing the station's community of license and service area.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
<p>10. Local Public Notice. Applicant certifies compliance with the public notice requirements of 47 C.F.R. Section 73.3580.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p>
<p>11. Auction Authorization. If the application is being submitted to obtain a construction permit for which the applicant was the winning bidder in an auction, then the applicant certifies, pursuant to 47 C.F.R. Section 73.5005(a), that it has attached an exhibit containing the information required by 47 C.F.R. Sections 1.2107(d), 1.2110(i), 1.2112(a) and 1.2112(b), if applicable.</p> <p>An exhibit is required unless this question is inapplicable.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p><input type="radio"/> N/A</p> <p>See Explanation in [Exhibit 9]</p>
<p>12. Anti-Drug Abuse Act Certification. Applicant certifies that neither applicant nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p>
<p>13. Equal Employment Opportunity (EEO). If the applicant proposes to employ five or more full-time employees, applicant certifies that it is filing simultaneously with this application a Model EEO Program Report on FCC Form 396-A.</p>	<p><input type="radio"/> Yes <input type="radio"/> No</p> <p><input type="radio"/> N/A</p>

I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing BILL FORTHOFER	Typed or Printed Title of Person Signing MANAGER
Signature	Date 5/24/2018

SECTION III - PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name BRUCE BELLAMY		Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER	
Signature		Date 5/23/2018	
Mailing Address MUNN-REESE PO BOX 220			
City COLDWATER		State or Country (if foreign address) MI	Zip Code 49036 -
Telephone Number (include area code) 5172787339		E-Mail Address (if available) BRUCE@MUNN-REESE.COM	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

Section III-A - Engineering			
TECHNICAL SPECIFICATIONS			
Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.			
TECH BOX			
1. Channel: 225			
2. Primary Station:			
Facility ID Number	Call Sign	City	State
21487	WLKR	NORWALK	OH
3. Delivery Method (Select One):			
<input type="radio"/> Off-air <input type="radio"/> Microwave <input type="radio"/> Satellite <input type="radio"/> Via <input checked="" type="radio"/> Other			
4. Antenna Location Coordinates: (NAD 27)			
Latitude:			
Degrees 41 Minutes 16 Seconds 49 <input checked="" type="radio"/> North <input type="radio"/> South			
Longitude:			
Degrees 82 Minutes 39 Seconds 26 <input checked="" type="radio"/> West <input type="radio"/> East			
5. Antenna Structure Registration Number: 1047453			
<input type="checkbox"/> Not Applicable <input type="checkbox"/> Notification filed with FAA			
6. Antenna Location Site Elevation Above Mean Sea Level:			210 meters
7. Overall Tower Height Above Ground Level:			107 meters
8. Height of Radiation Center Above Ground Level:			95 meters(H) 95 meters(V)
9. Effective Radiated Power:			0.25 kW(H) 0.25 kW(V)
10. Transmitting Antenna:			

Before selecting Directional "Off-the-Shelf", refer to "Search for Antenna Information" under CDBS Public Access (http://licensing.fcc.gov/prod/cdbs/pubacc/prod/cdbs_pa.htm). Make sure that the Standard Pattern is marked Yes and that the relative field values shown match your values. Enter the Manufacturer (Make) and Model exactly as displayed in the Antenna Search.

Nondirectional Directional Off-the Shelf Directional composite

Manufacturer NIC Model BKG-77-2 (0.75 SP)

Rotation:270degrees No Rotation

Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
0	0.983	10	0.983	20	0.983	30	0.988	40	0.988	50	0.992
60	1	70	0.991	80	0.963	90	0.923	100	0.862	110	0.797
120	0.731	130	0.676	140	0.628	150	0.594	160	0.571	170	0.558
180	0.553	190	0.558	200	0.571	210	0.594	220	0.628	230	0.682
240	0.738	250	0.815	260	0.897	270	0.953	280	0.973	290	0.983
300	1	310	0.992	320	0.988	330	0.988	340	0.983	350	0.983
Additional Azimuths											

Relative Field Polar Plot

11. **For FM Boosters and Fill-in translators only.**

a. **FM Fill-in translators.** Applicant certifies that the FM translator's (a) 1mV/m coverage contour does not extend beyond the protected contour of the commercial FM primary station to be rebroadcast, or (b) entire 1mV/m coverage contour is contained within the greater of either: (i) the 2 mV/m daytime contour of the commercial AM primary station to be rebroadcast, or (ii) a 25-mile radius centered at the commercial AM primary station's transmitter site. Yes No
 N/A
See Explanation in [Exhibit 10]

b. **FM Boosters.** Applicant certifies that the FM Booster station's service contour is entirely within the primary station's protected coverage contour. Yes No
 N/A
See Explanation in [Exhibit 11]

12. **Interference.** The proposed facility complies with all of the following applicable rule sections. Check all that apply: Yes No
See Explanation in [Exhibit 12]

Overlap Requirements.
 a) 47 C.F.R. Section 74.1204 [Exhibit 13]
Exhibit Required.

Television Channel 6 Protection.
 b) 47 C.F.R. Section 74.1205 with respect to station(s) [Exhibit 14]
Exhibit Required.

13. **Unattended operation.** Applicant certifies that unattended operation is not proposed, or if this application proposes unattended operation, the applicant certifies that it will comply with the requirements of 47 C.F.R. Section 74.1234. Yes No
See Explanation in [Exhibit 15]

14. **Multiple Translators.** Applicant certifies that it does not have any interest in an application or an authorization for an FM translator station that serves substantially the same area and rebroadcasts the same signal as the proposed FM translator station. Yes No
See Explanation in [Exhibit 16]

15.	<p>Environmental Protection Act. Applicant certifies that the proposed facility is excluded from environmental processing under 47. C.F.R. Section 1.1306 (i.e., the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine compliance through the use of the RF worksheets in Appendix A, an Exhibit is required.</p> <p>By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p>See Explanation in [Exhibit 17]</p>
<p>PREPARER'S CERTIFICATION ON PAGE 4 MUST BE COMPLETED AND SIGNED.</p>		

Section IV -- Noncommercial Educational Point System Factors - -New and Major Change Applications on Reserved Channels Only (used to select among mutually exclusive applications for new stations and major modifications) **NOTE:** Applicants will not received any additional points for amendments made after the close of the application filing window.

Preliminary Matter: Does this application provide fill-in service only?		<input type="radio"/> Yes <input type="radio"/> No
1.	<p>Established Local Applicant: Applicant certifies that for at least the 24 months immediately prior to application, and continuing through the present, it qualifies as a local applicant pursuant to 47 C.F.R. Section 73.7000, that its governing documents require that such localism be maintained, and that it has placed documentation of its qualifications as an established local applicant in a local public inspection file and has submitted to the Commission copies of the documentation.</p>	<input type="radio"/> Yes <input type="radio"/> No
2.	<p>Diversity of Ownership: Applicant certifies that the principal community (city grade) contour of the proposed station does not overlap the principal community contour of any other authorized radio station (including AM, FM, and non-fill-in FM translator stations, commercial or noncommercial) in which any party to the application has an attributable interest as defined in 47 C.F.R. Section 73.3555, that its governing documents require that such diversity qualification in a local public inspection file and has submitted to the Commission copies of the documentation.</p>	<input type="radio"/> Yes <input type="radio"/> No
3.	<p>State-wide Network: Applicant certifies that (a) it has NOT claimed a credit for diversity of ownership above; (b) it is one of the three specific types of organizations described in 47 C.F.R. Section 73.7003(b)(3); and (c) it has placed documentation of its qualifications in a local public inspection file and has submitted to the Commission copies of the documentation.</p>	<input type="radio"/> Yes <input type="radio"/> No
4.	<p>Technical Parameters: Applicant certifies that the numbers in the boxes below accurately reflect the new (increased) area and population that its proposal would serve with a 60 dBu signal measured in accordance with the standard predicted contours in 47 C.F.R. Section 73.713(c) and that it has documented the basis for its calculations in the local public inspection file and has submitted copies to the Commission. Major modification applicants should include the area of proposed increase only (exclude the station's existing service area). (Points, if any, will be determined by FCC)</p>	<input type="radio"/> Yes <input type="radio"/> No
	New (increased) area served in square kilometers (excluding areas of water):	
	Population served based on the most recent census block data from the United States Bureau of Census using the centroid method:	
Tie Breakers		
5.	<p>Existing Authorizations. a. By placing a number in the box, the applicant certifies that it and any persons and organizations with attributable interests in the applicant pursuant to 47 C.F.R. Section 73.3555 have, as of the date filing, existing authorizations for the following number of relevant broadcast stations. FM translator applicants should count all attributable full service radio stations, AM and FM, commercial and noncommercial and FM translator stations other than fill-in stations.</p> <p>(number of attributable commercial and non-commercial licenses and construction permits)</p> <p>b. (Fill-in Applicants Only.) By placing a number in the box, the applicant certifies that, in addition to the station identified in</p>	

5(a), it and any persons and organizations with attributable interests in the applicant pursuant to 47 C.F.R. Section 73.3555 have, as of the date filing, existing authorizations for the following number of FM translators.

6. **Pending Applications.** a. By placing a number in the box, the applicant certifies that it and any persons and organizations with attributable interests in the applicant pursuant to 47 C.F.R. Section 73.3555 have, as of the date filing, pending applications for new or major changes to the following number of relevant broadcast stations, AM and FM, commercial and non-commercial and FM translator stations other than fill-in stations.

(number of attributable commercial and non-commercial applications)

b. (Fill-in Applicants Only.) By placing a number in the box, the applicant certifies that, in addition to the station identified in 5(a), it and any persons and organizations with attributable interests in the applicant pursuant to 47 C.F.R. Section 73.3555 have, as of the date of filing, existing authorizations for the following number of FM translators.

Section VI -- Certification

I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing BILL FORTHOFFER	Typed or Printed Title of Person Signing MANAGER
Signature	Date 5/24/2018

Exhibits

Exhibit 1

Description: EXPLANATION OF AMENDMENT

THIS AMENDMENT IS TO THE SHORT FORM AUCTION 100 APPLICATION FOR A NEW TRANSLATOR. THE ORIGINAL APPLICATION IS MX'D WITH 3RD ADJACENT CHANNEL APPLICATION BNPFT-20180130ABP (FAC ID: 202620). SECTION III-A, QUESTION 10 HAS BEEN CHANGED. THE ANTENNA WAS A ONE BAY AND IS NOW A TWO BAY. THIS CONFINES THE INTERFERENCE CAUSED TO A SMALL UNINHABITED SPACE OF LESS THAN 100 METERS AROUND THE TRANSMIT SITE. DURING THIS SETTLEMENT WINDOW THE OTHER PARTY (FAC ID: 202620) WILL BE AMENDING THEIR APPLICATION TO RESOLVE THE INTERFERENCE THEY CAUSE AND THEREFORE RESOLVE THE MX.

Attachment 1

Exhibit 3

Description: EXHIBIT 3

APPLICANT IS THE AM PRIMARY.

Attachment 3

Exhibit 4

Description: EXHIBIT 4

SEE ENGINEERING SECTION.

Attachment 4

Exhibit 13**Description:** ENGINEERING DISCUSSION AND EXHIBITS

THE NED 30 SECOND TERRAIN DATABASE WAS USED FOR ALL TERRAIN BASED CALCULATIONS CONTAINED HEREIN

Attachment 13

Description
<u>Discussion of Engineering Exhibits</u>
<u>Exhibits 13.1 - 13.5</u>

Exhibit 17**Description:** ENVIRONMENTAL COMPLIANCE**Attachment 17**

Description
<u>Exhibit 17.1</u>

ENGINEERING REPORT

**Amendment to
FM Translator
New Station Construction
Permit Application
for
New FM Translator**

as an AM Fill-In Translator for
WLKR(AM) – Norwalk, OH

**“Short Form Application for FM
Translator Auction Window 100”
File: BNPFT-20180126ABE**

May, 2018

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MUNN-REESE
Broadcast Engineering Consultants
Coldwater, MI 49036

Table of Contents

Discussion of Report

FM Booster/Fill-in Translator Requirements (See Discussion)

Interference/Overlap Requirements

Exhibit 13.1 - Copy of Existing Antenna Structure Registration (if applicable)

Exhibit 13.2 - Proposed Service and AM Fill-In Contour Map

Exhibit 13.3 - Tabulation of Proposed Allocation

Exhibit 13.4 - §74.1204(d) 2nd/3rd Adjacent Waiver Request (if applicable)

Exhibit 13.5 - Copy of Manufacturer's Vertical Radiation Pattern (if applicable)

TV Channel 6 Protection Requirements (See Discussion)

Multiple Translator Requirements (See Discussion)

RF Radiation Study Requirement

Exhibit 17.1 - RF Compliance Study

(Exhibit numbering is in response to FCC Online Form 349, Section III-A)

Discussion

This firm has been retained to prepare the required engineering report in support of an amendment to New Station Construction Permit Application for an FM Translator (BNPFT-20180126ABE). This New Translator proposal requests an AMSL of 305 meters and an ERP of 0.25kW (H&V) operating on CH225D. The Fill-In Translator will rebroadcast Class D Primary Station WLKR(AM) – Elyria, OH (1510 kHz); Facility ID No. 21487. This amendment proposes a change in antenna (two bay vs. one bay) to resolve mutual exclusivity with another translator proposal (BNPFT-20180130ABP).

The Translator as proposed will be mounted on a tower bearing Antenna Structure Registration Number 1047453. A copy of the ASR is included in **Exhibit 13.1**.

The proposed 60 dB μ contour of the Fill-In Translator lies wholly inside the greater of the AM primary daytime 2.0 mV/m contour and a 25 mile radius around the AM site. A map of the proposed service area in relation to the primary station service contour has been included in **Exhibit 13.2**.

It has been determined the Translator may be used in the area without interference to any existing FM broadcast station or facility. General allocation details are found in **Exhibit 13.3**. It is believed sufficient clearance exists precluding the need for additional contour protection showings.

The applicant would like to note the existence of a §74.1204(d) Second/Third Adjacent Channel Given Interference Waiver Request toward translator application (BNPFT20180130ABP), Sandusky, OH (CH228D) as noted in **Exhibit 13.4**. Protection has been based on the worst case calculated 109.17 dB μ F(50:10) Interference Contour, corresponding to the worst case 69.17 dB μ F(50:50) Protected Contour. Protection has been demonstrated through a downward vertical radiation study. Full protection will be afforded the facility as the interference will not reach a seven meter artificial plane representing a standard two story home (outside of a 100 meter radius around the tower) when taking into account the downward radiation characteristics of the antenna as supplied by the antenna manufacturer. An aerial photo of the site shows no population within 100 meters of the tower site in **Exhibit 13.4**. The antenna manufacturer's specifications are included in **Exhibit 13.5**.

This translator is not within the affected distance of any TV Channel 6 stations.

The applicant would like to note use of the NED 03 second terrain database for terrain based showings contained here-in.

Discussion (continued)

RADIATION PROTECTION: The Commission requires an engineering study regarding compliance with the guidelines for human protection from radiofrequency radiation. This report section is in response to that provision of the Rules. The current Federal Communications Commission guidelines for RF radiation protection are set forth in OET Bulletin No. 65 (Edition 97-01), and the accompanying Supplement A, (Edition 97-01).

The FM Broadcast facility proposed in this application will not produce human exposure to radiofrequency radiation in excess of the applicable safety standards specified in §1.1307 of the Commission's rules concerning RF contributors. **Exhibit 17.1** provides the details of the study that was made to demonstrate compliance. The facility is properly marked with signs, and entry is restricted by means of fencing with locked doors and/or gates. Any other means as may be required to protect employees and the general public will be employed.

In the event work would be required in proximity to the antenna such that the person or persons working in the area would be potentially exposed to fields in excess of the guidelines set forth in OET Bulletin No. 65 (Edition 97-01), the transmitter power will be reduced or the station will cease operation during the critical period.

ASR Registration Search

Registration 1047453[Map Registration](#)**Registration Detail**

Reg Number	1047453	Status	Constructed
File Number	A0420516	Constructed	07/01/1981
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Commu

Location (in NAD83 Coordinates)

Lat/Long	41-16-49.0 N 082-39-26.0 W	Address	HUBER ROAD
City, State	NORWALK , OH		
Zip	44857	County	HURON
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	209.4	Overall Height Above Ground (AGL)	106.8
Overall Height Above Mean Sea Level	316.2	Overall Height Above Ground w/o Appurtenances	97.4

Painting and Lighting Specifications

FAA Chapters 3, 4, 5, 12

Paint and Light in Accordance with FAA Circular Number 70/7460-1K

FAA Notification

FAA Study	2002-AGL-6485-OE	FAA Issue Date	12/27/2002
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Owner & Contact Information

FRN	0002944817	Owner Entity Type	
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Owner

Elyria-Lorain Broadcasting Corporation	P: (440)322-3761
Attention To: Gary L. Kneisley	F:
538 Broad Street	E: gkneisley@elbc.net
P.O. Box 4006	
Elyria , OH 44036	

Contact

Trent , John C Esq	P: (703)437-8400
100 Carpenter Drive, Suite 100	F:
P.O. Box 217	E: fccman@earthlink.net
Sterling , VA 20167-0217	

Last Action Status

Status	Constructed	Received	12/29/2004
Purpose	Admin Update	Entered	12/29/2004
Mode	Interactive		

Related Applications

12/29/2004 A0420509 - Notification (NT)
12/29/2004 A0420516 - Admin Update (AU)
01/08/2003 A0305643 - Modification (MD)

Related applications (5)

Comments

Comments

None

History

Date	Event
12/30/2004	Registration Printed
12/29/2004	ASR Application receipt email sent: Tower email
12/29/2004	Administrative Update Received

All History (10)

Automated Letters

12/30/2004 Authorization, Reference 389805
01/12/2004 Construction Reminder, Reference 316582
01/10/2003 Authorization, Reference 263812

All letters (5)



Exhibit 13.2 - WLKR(AM) Proposed Translator vs AM Contours

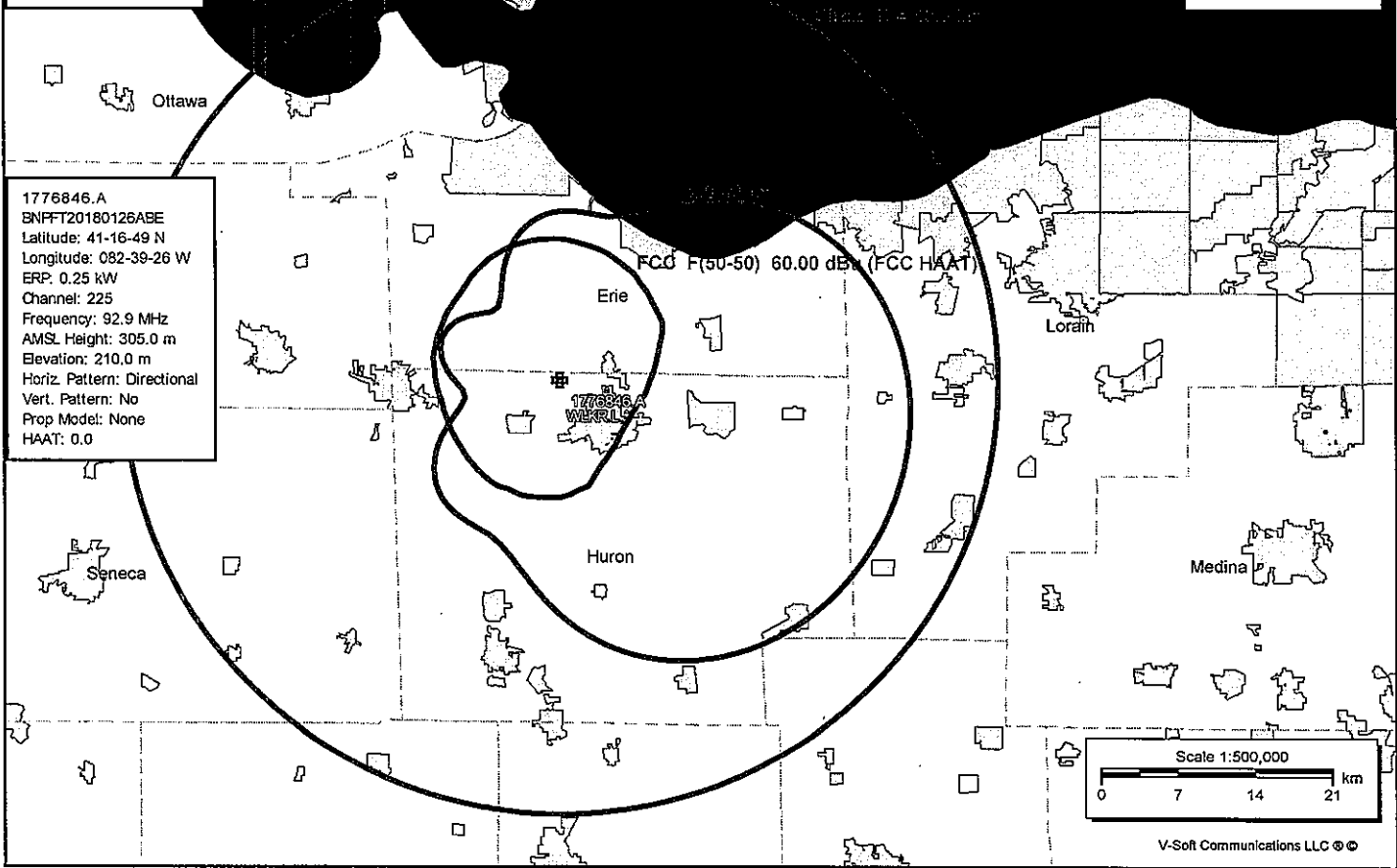
Munn-Reese.com

WLKR.L

Latitude: 41-16-45 N
Longitude: 082-39-23 W

Frequency: 1510 kHz

■ WLKR.L
■ 1776846.A (225)



Munn-Reese
 Col dwater, M 49036

REFERENCE
 41 16 49.0 N
 82 39 26.0 W

CH# 225D - 92.9 Mhz, Pwr= 0.25 kW DA HAAT= 84.8 M COR= 305 M
 Average Protected F(50-50)= 11.89 km
 Standard Deviation

Exhibit 13.3
 El yria-I orain Broadcasting Co.
 DISPLAY DATES
 DATA 05-22-18
 SEARCH 05-22-18

CH CI TY	CALL	TYPE STATE	ANT AZI -<-	DI ST FILE #	LAT LNG	PWR/ KW HAAT(M)	INT(km) CCR(M)	PRQ(km) LI CENSEE	*I N* (Overlap in km)	*O U T* (Overlap in km)
225D Norwalk	1776S46	APP DC_	0.0 0.0	0.00 BNPFT20180126ABE	41 16 49.0 82 39 26.0	0.250		---	---	---
228D Sandusky	1777075	APP C_	40.8 220.8	7.44 BNPFT20180130ABP	41 19 51.5 82 35 56.5	0.250	1.1 307	12.6	-5.2* <	-5.9* <
226B Cleveland	VZAK	LI C CN	89.6 270.3	86.42 BLH4273	41 16 50.0 81 37 22.0	27.500 189	71.6 490	60.7	6.6	8.7
224A Bucyrus	VOEL	LI C CX	202.0 21.9	61.93 BLH20060303AAO	40 45 49.0 82 56 00.0	3.000 93	34.5 402	23.0	16.3	23.0
223B Toledo	VWKS	LI C CN	290.0 109.4	82.94 BLH19961008KA	41 31 55.0 83 35 37.0	50.000 146	5.9 340	64.4	65.2	17.0
222B Cleveland Heights	VKRY-FM	LI C DEN	79.1 259.9	98.95 BLH19891128KA	41 26 32.0 81 29 28.0	40.000 167	6.3 465	67.6	83.7	30.2
225D Toledo	V225AM	LI C C_	297.6 117.0	88.86 BLFT20160728ACT	41 38 49.0 83 36 18.0	0.144	42.9 313	12.6	34.0	35.0
224B1 Learnington	CJSP	OPE DEN	5.5 185.6	81.38 20070228CAN	42 00 35.0 82 33 45.0	4.000 145	23.5 324	18.8	45.2	35.4
227D Tiffin	V227BJ	LI C C_	247.2 66.8	47.57 BLFT20150527ABL	41 06 46.6 83 10 50.2	0.250	1.1 261	7.1	35.5	39.4
279B Pemberville	VCKY-FM	LI C CX	252.5 72.1	51.80 BLH20081201AEL	41 08 20.0 83 14 45.0	50.000 131	11.2 364	77.4	14.5R	37.3M
226B Detroit	VDRQ	LI C DCN	341.4 161.0	139.83 BLH19860613KB	42 28 16.0 83 12 03.0	26.500 204	78.3 412	65.9	48.6	46.3
228B1 Bowling Green	VRCN	LI C NCX	283.6 103.0	85.89 BLH20061002BGR	41 27 28.0 83 39 33.0	7.000 121	3.0 315	36.6	71.1	47.8
224D Parrma	V224CD	LI C DV_	81.6 262.2	80.56 BLFT20150921AAI	41 22 58.0 81 42 07.0	0.099 279	23.5 543	15.7	48.2	52.4
223D Mansfield	V223CF	LI C C_	170.3 350.4	62.97 BMLFT20151013AFI	40 43 19.0 82 31 52.0	0.038	0.4 442	6.5	52.2	55.5
225A1 Chat ham	AL4535	CN_	17.3 197.6	130.63	42 24 08.0 82 11 03.0	0.250 100	44.4 283	18.0	73.9	55.1
225A1 Chat ham	NEW	OPE HN	17.3 197.6	130.63	42 24 08.0 82 11 03.0	0.250 65	35.7 247	14.7	82.6	58.5
222B Detroit	VWKD	LI C ZON	344.8 164.5	121.25 BLH19970303KA	42 19 55.0 83 02 42.0	45.000 146	4.1 331	52.6	104.2	67.1
225B Eat on	VGTZ	LI C CN	223.2 42.0	218.07 BLH19850204KW	39 50 10.0 84 24 16.0	40.000 168	136.4 463	66.1	70.5	97.2
225D Del aware	V225CM	LI C DC_	196.8 16.6	113.88 BLFT20160621AAE	40 17 56.8 83 02 45.3	0.250	11.1 362	3.5	91.7	72.3
228D 1777270		APP DC_	104.6	93.03	41 03 53.0	0.250	0.8	14.1	84.6	78.3

Akron	OH	285.3	BNPFT20180129ABZ	81 34 59.0		469	Rubber City Radio Group, I
223B WDJQ Alliance	LIC DEX OH	112.2 293.2	140.93 BMLH20021205ABW	40 47 25.0 81 06 26.0	50.000 152	5.0 518	58.9 128.6 80.7 D. A. Peterson, Inc.
222B WOCL-FM Colerbus	LIC_CN OH	192.2 12.0	148.87 BLH19890808KA	39 58 16.0 83 01 40.0	22.000 230	5.6 475	64.0 132.2 83.2 Casters Licenses, Inc.
225B WLTJ Pittsburgh	LIC NCX PA	110.5 292.2	239.40 BLH20060707AAC	40 29 43.0 80 00 17.0	43.000 260	146.4 564	73.2 85.6 130.1 Print Media Subsidiary, LIC
227B WOOC Ashville	LIC NCX OH	190.0 9.8	158.48 BLH20061114ACH	39 52 34.0 82 56 49.0	32.000 184	5.7 413	63.5 141.8 93.3 Licenses, Lic, As Debt o
226A WWSR Lima	LIC_CN OH	246.3 65.3	140.31 BLH19920916KD	40 45 47.0 84 10 59.0	3.000 97	35.1 350	23.3 94.3 101.4 Wolf Boom Radio Of Lima LI

CH CI TY	CALL	TYPE ANT STATE	AZI -<-	DI ST FILE #	LAT LNG	PWR kW HAAT (M)	INT (km) COR (M)	PRQ km LI CENSEE	Page # 2 *LN* (Overlap in km)	*OUT*
228D Massillon	1776633	APP_C_	118.1 298.8	104.53 BNPFT20180126ACL	40 49 57.0 81 33 39.0	0.050	0.5 388	7.0 96.7	96.9	Wig, Inc.
225L1 Defiance	VDCM-LP	LI C_	271.8 90.6	143.26 BMLL20160421AFH	41 18 26.0 84 22 19.0	0.100 30	245	113.2	98.5	Dc Radio Group, Inc.
228D Riverside	V228CU	LI C_DC_	340.4 160.1	118.62 BLFH20161212AAB	42 17 04.6 83 08 25.0	0.250	0.7 253	9.8 104.9	107.7	Educational Media Foundat
224B1 Zanesville	VHI Z-FM	LI C_CX	163.9 344.3	181.04 BLH20040415AEI	39 42 52.0 82 04 10.0	16.000 124	60.7 405	46.3 110.4	117.6	Southeastern Ohio Broadcas
227B Youngstown	VWCD	LI C_CN	96.9 278.2	169.55 BLH19831024AC	41 04 50.0 80 38 54.0	50.000 85	4.8 413	56.2 156.8	112.1	Citicasters Licenses, Inc.
224L1 Columbus	VCRS-LP	LI C_	192.6 12.4	135.08 BLL20170515ABB	40 05 38.4 83 00 12.8	0.068 36	302	116.8	114.2	The Neighborhood Network
278B Detroit	VWLZ-FM	LI C_CX	338.5 158.1	131.25 BMLH20150210AAQ	42 22 40.0 83 14 35.0	50.000 142	11.2 336	77.4 14.5R	116.8M	Wtuz Radio, Inc.
225A Grand Ledge	VLM	LI C_CX	316.5 135.2	224.98 BLH20071119AEL	42 43 58.0 84 33 13.0	5.400 105	84.4 365	27.2 128.3	155.8	Midwest Communications, In
228C1 London	CBCL-FM	OPE ?CN	29.5 210.4	214.92	42 57 20.0 81 21 20.0	100.000 231	9.4 488	82.5 193.7	130.8	
224L1 Gallaway	VEFC-LP	LI C_	198.9 18.5	153.10 BLL20151123CUL	39 58 34.0 83 14 24.0	0.100 22	298	133.9	131.4	Christian Church Of Evange
278A Pickerington	VWIND	LI C_ZCX	182.2 2.2	147.83 BLH20061122ADG	39 57 00.0 82 43 29.0	4.200 119	11.2 409	77.4 9.5R	138.3M	Franklin Communications, I
224A Berne	VZBD	LI C_CN	254.2 72.7	199.24 BLH19950327KC	40 46 15.0 84 56 05.0	4.100 120	43.0 366	28.1 145.3	155.5	Adams County Radio, Inc
279A Philo	VZVL	LI C_ZEX	159.1 339.5	160.53 BLH20110805ABV	39 55 41.8 81 59 07.5	2.400 160	11.2 413	77.4 9.5R	151.0M	Southeastern Ohio Broadcas
224B London	CJBFM	OPE_HN	34.6 215.6	226.19	42 56 40.0 81 04 48.0	50.000 121	61.1 327	48.6 153.4	152.7	
228A Howell	VHM -FM	LI C_CN	325.8 145.0	186.73 BLH19980911KF	42 39 47.0 83 56 23.0	5.200 108	2.6 388	26.9 171.5	158.8	Krol Communications Inc.
227B1 Kendallville	V8TU	LI C_NCX	268.8 87.2	212.77 BLH20030602AXS	41 12 49.0 85 12 04.0	18.500 117	4.1 375	45.6 197.3	165.6	Adams Radio Of Fort Wayne,
228A Barnesville	VBNV	LI C_CN	140.9 321.9	195.89 BLH19910712KC	39 54 10.0 81 12 37.0	2.500 149	2.5 492	29.0 185.4	166.2	Avc Communications, Inc.
224A Flint	VOZZ-FM	LI C_CX	336.8 156.1	213.53 BLH20090513AEU	43 02 29.0 83 41 28.0	3.000 100	34.0 332	22.7 166.6	171.5	Cumulus Licensing LLC
225B South Bend	VNDV-FM	LI C_C_	278.1 95.8	298.50 BLH19980727KB	41 36 20.0 86 12 46.0	12.000 268	119.2 507	61.4 167.6	180.6	Sound Management, LLC
224A Lawrence Park	VEHP	LI C_DCX	65.2 246.9	230.73 BLH20121113ALW	42 07 25.0 80 07 02.0	6.000 3	39.2 254	25.5 181.1	190.7	The Erie Radio Company, LI
222A Fort Wayne	VFW	LI C_CX	265.8 84.1	213.18 BLH20050414AAF	41 06 39.0 85 11 44.0	2.200 166	2.5 413	28.7 199.5	183.4	Pathfinder Communications
225L1 Cambridge Springs	VXCS-LP	LI C_	74.5 256.2	223.34 BLL20040608ABK	41 47 20.0 80 03 39.0	0.090 31	425	194.5	186.3	Cambridge Community Radi
278B Burgess	VLYI	LI C_CX	120.6 302.0	200.93 BLH20040823AAU	40 20 33.0 80 37 14.0	19.500 247	11.2 561	77.4 14.5R	186.4M	Fm Radio Licenses, LLC
225A CIZN		OPE_HN	37.4	301.48	43 24 47.0	1.600	99.7	50.3 190.2	196.8	

Call Sign	Class	Lat	Long	Alt	Spacings	Power	Frequency	Notes
Cambridge	ON	218.9			80 23 35.0	59	370	
226L1 WMLY-LP Marshall	LIC M	301.5 120.0	213.44 BLL20041118ABM		42 15 42.0 84 52 11.0	0.090 31		193.7 190.4 Marshall Christian Radio
225L1 WCPG-LP Battle Creek	LIC M	299.9 118.2	241.57 BMLL20170928ADG		42 20 03.0 85 12 24.0	0.100 25	300	210.8 194.5 Battle Creek Community Rad
223A WBGV Mariette	LIC M	353.5 173.3	224.50 BLH19990621KC		43 17 10.0 82 58 17.0	3.000 100	2.2 342	23.9 209.3 199.6 Gb Broadcasting Company

Terrain database is NED 03 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
Contour distances are on direct line to and from reference station. Reference zone= East Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding.
Ant. Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C, H, V, E), Beam tilt (Y, N, X)
"*" affixed to 'IN' or 'OUT' values = site inside restricted contour.
« = Station meets FCC minimum distance spacing for its class.
< = Contour Overlap
Reference station has protected zone issue: AM tower

Exhibit 13.4 - WLKR(AM) - Proposed Translator vs BNPFT20180130ABP in support of a 74.1204(d) Waiver

Munn-Reese.com

WLKR.L
Latitude: 41-16-45 N
Longitude: 082-39-23 W
Frequency: 1510 kHz

1776846.A
BNPFT20180126ABE
Latitude: 41-16-49 N
Longitude: 082-39-26 W
ERP: 0.25 kW
Channel: 225
Frequency: 92.9 MHz
AMSL Height: 305.0 m
Elevation: 210.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None
HAAT: 0.0

1777075.A
BNPFT20180130ABP
Latitude: 41-19-51.50 N
Longitude: 082-35-56.50 W
ERP: 0.25 kW
Channel: 228
Frequency: 93.5 MHz
AMSL Height: 307.0 m
Elevation: 196.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: None
HAAT: 0.0

- WLKR.L
- 1776846.A (225)
- 1777075.A (228)

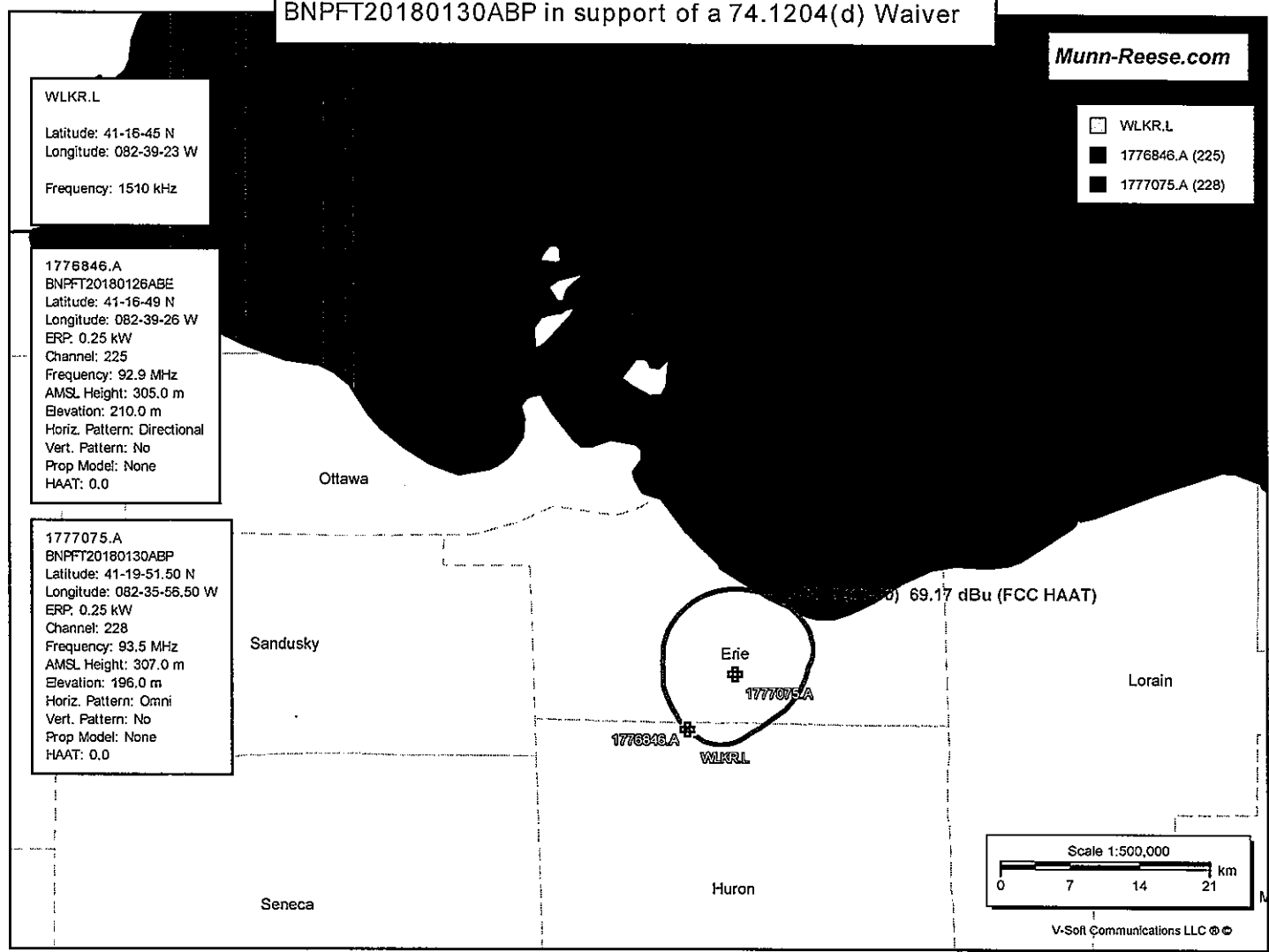
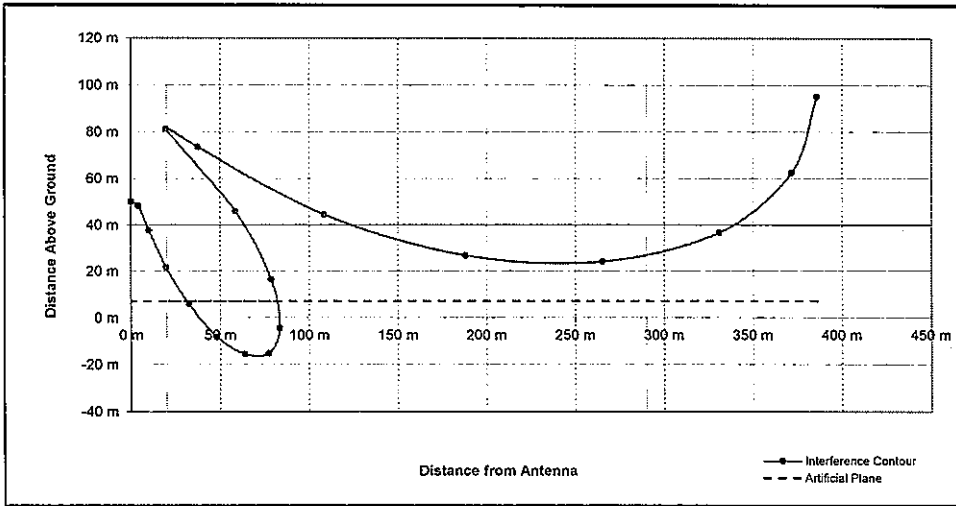


Exhibit 13.4 - Downward Radiation Study in support of a 74.1204(d) Waiver Request



Proposed Antenna: BKG77/2L Two Bay 0.75 λ Spaced
 Proposed Power: 0.25 kW
 Antenna Height AGL: 95 meters
 Interference Contour: 109.17 dBu @ (50:10)
 Artificial Ground Plane Height: 7 meters
 Distance (Free Space) Equation: $= (10^{((106.92 - (\text{desired dBu}) + (\text{ERP in dBk}) / 20)) / 1000})$
 Field Strength (dBu) Equation: $= 106.92 - (20 * (\text{LOG}_{10}(\text{Dist/Meters}) / 1000)) + (\text{ERP in dBk})$

Depression Angle	Antenna Relative Field	ERP in kW	ERP in dBk	Distance from Ant. to Interference Contour	Distance from Ant. to Artificial Plane	Field Strength in dBu @ Artificial Plane	Distance from Ant. to Ground Level	Field Strength in dBu @ Ground Level
0°	1.000	0.250	-6.02	385.90 m	Infinite	---	---	---
-5°	0.967	0.234	-6.31	373.16 m	1009.69 m	106.52 dBu	1090.00 m	99.86 dBu
-10°	0.871	0.190	-7.22	336.12 m	506.77 m	105.60 dBu	547.08 m	104.94 dBu
-15°	0.711	0.126	-8.98	274.37 m	340.01 m	107.31 dBu	367.05 m	106.64 dBu
-20°	0.518	0.067	-11.73	199.89 m	257.29 m	106.95 dBu	277.76 m	106.31 dBu
-25°	0.310	0.024	-16.19	119.63 m	208.23 m	104.36 dBu	224.79 m	103.69 dBu
-30°	0.112	0.003	-25.04	43.22 m	176.00 m	96.97 dBu	190.00 m	96.31 dBu
-35°	0.062	0.001	-30.17	23.93 m	153.42 m	93.03 dBu	165.63 m	92.36 dBu
-40°	0.198	0.010	-20.09	76.41 m	136.90 m	104.10 dBu	147.79 m	103.44 dBu
-45°	0.288	0.021	-16.83	111.14 m	124.45 m	108.19 dBu	134.35 m	107.52 dBu
-50°	0.336	0.028	-15.49	129.66 m	114.88 m	110.22 dBu	124.01 m	109.56 dBu
-55°	0.349	0.030	-15.16	134.68 m	107.43 m	111.13 dBu	115.97 m	110.47 dBu
-60°	0.331	0.027	-15.62	127.73 m	101.61 m	111.16 dBu	109.70 m	110.49 dBu
-65°	0.295	0.022	-16.62	113.84 m	97.10 m	110.55 dBu	104.82 m	109.69 dBu
-70°	0.246	0.015	-18.20	94.93 m	93.65 m	109.29 dBu	101.10 m	108.62 dBu
-75°	0.197	0.010	-20.13	76.02 m	91.10 m	107.60 dBu	98.35 m	106.93 dBu
-80°	0.151	0.006	-22.44	58.27 m	89.38 m	105.46 dBu	96.47 m	104.79 dBu
-85°	0.122	0.004	-24.29	47.08 m	88.34 m	103.70 dBu	95.36 m	103.04 dBu
-90°	0.117	0.003	-24.66	45.15 m	88.00 m	103.37 dBu	95.00 m	102.71 dBu

Exhibit 13.4 - Aerial Photo of Transmit Site with 100 meter radius around tower in support of a 74.1204(d) Wavier Request

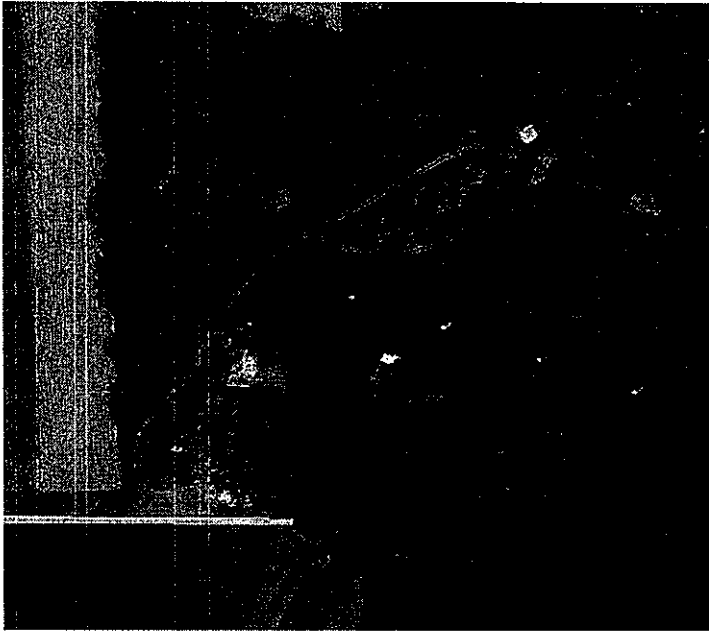
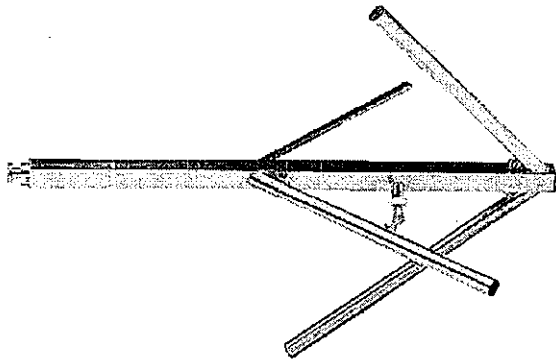


Exhibit 13.5 - Manufacturer's Antenna Specifications



NICOM

BKG77

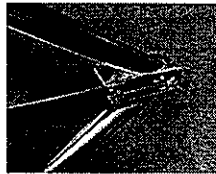
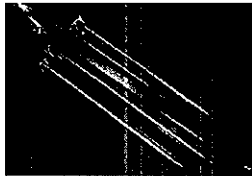
Low Power

Broadband
FM Circular
Polarization
Antenna

*Antena de
FM Banda Ancha
Polarización Circular*

This antenna, constructed completely of stainless steel, offers circular polarization for better coverage especially in urban areas. In order to facilitate and decrease shipping costs, this model is simple to break down and reassemble when ready to be installed. It is insulated with Teflon, and with the appropriate connector has a maximum input of 0.5 kw.

Esta antena, fabricada completamente de acero inoxidable, le ofrece polarización circular para mejor alcance, especialmente en zonas urbanas. Para facilitar y disminuir los costos de transportación, este modelo es fácil de desarmar y volver a montar tan pronto que la quiera instalar. Está aislada con Teflon, y con el conector apropiado tiene una entrada máxima de 0.5 kw.



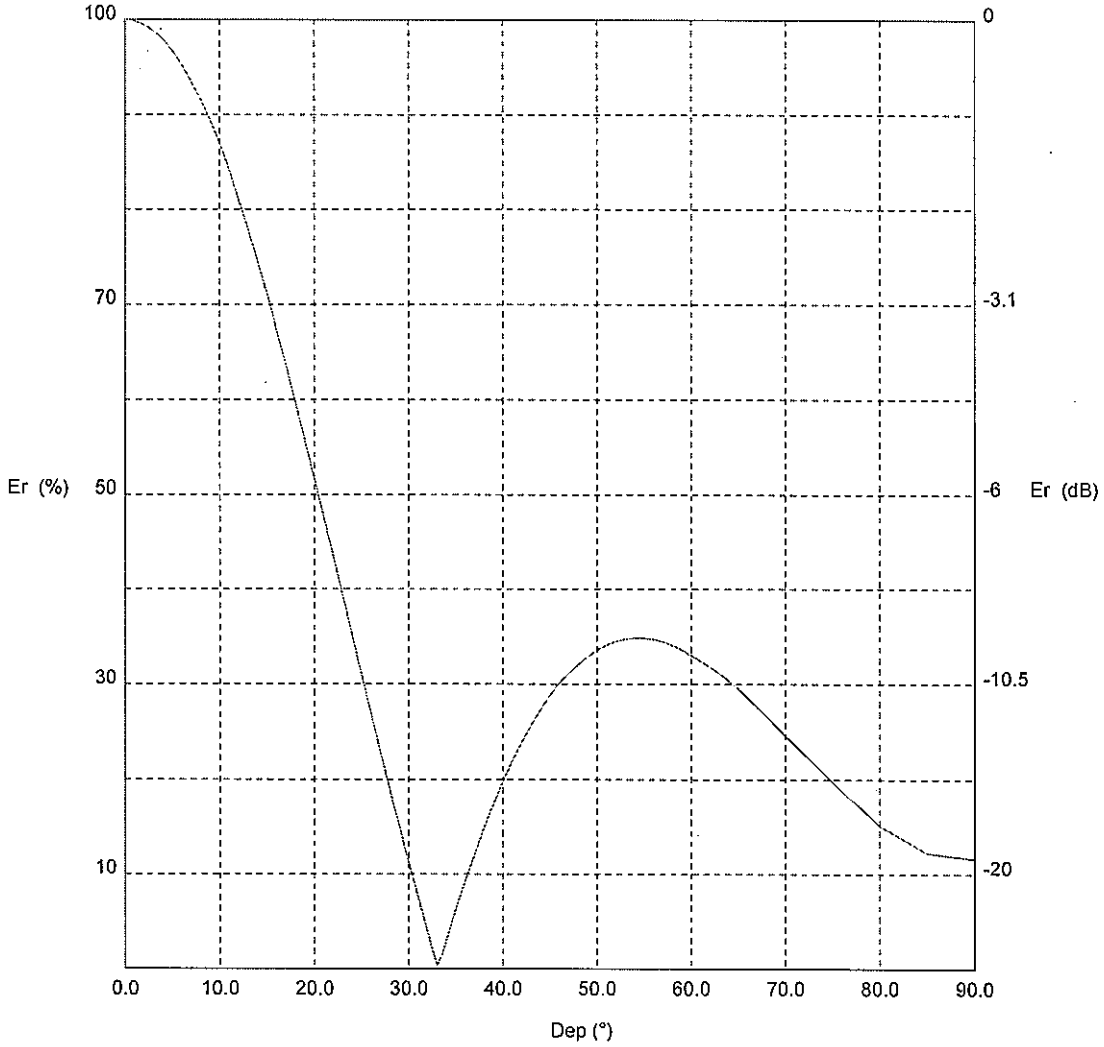
Antenna type	circular polarization dipole
Frequency range	87.5 - 108 MHz
Bandwidth	500 kHz max
Impedance	50 ohms
Connectors	N type (0.5 kw)
Power rating	500 Watts max
VSWR	< 1.1:1
Polarization	vertical and horizontal
Gain	- 3 dBd (referred to half-wave dipole)
H plane	omnidirectional ± 1.5 dB (with a 4' mast)
V plane	omnidirectional ± 3 dB (with a 4' mast)

Front-to-back ratio	3 dB
Lightening protection	all parts grounded
Max wind velocity	119 mph (190 km/h)
Wind load	8 Lbs (3.6 kg)
Wind surface	0.3 ft ² (0.04 m ²)
Materials (external)	stainless steel
Mounting	from 2" to 4"
Weight	7.7 Lbs (3.5 kg)
Dimensions	58"×32"×32" (1450×800×800mm)
Packing	72"×6"×6" (1500×152×152mm)

TX station: BKG77/2 GENERIC
Frequency: 98.10 MHz

Site name: 3/4 WAVE SEPARATION

Vertical diagram



—— 0.0° Az. (Total antenna)

NicomUsa, Inc

TX station: BKG77/2 GENERIC
 Frequency: 98.10 MHz

Site name: 3/4 WAVE SEPARATION

Vertical diagram at an azimuth of 0° degrees

Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)
0.0	100.0	914.2	30.0	11.2	11.5	60.0	33.1	100.1
0.5	100.0	913.3	30.5	9.3	7.9	60.5	32.8	98.4
1.0	99.8	911.3	31.0	7.5	5.1	61.0	32.5	96.7
1.5	99.7	908.1	31.5	5.6	2.9	61.5	32.2	94.8
2.0	99.4	903.9	32.0	3.8	1.3	62.0	31.9	92.8
2.5	99.1	898.4	32.5	2.1	0.4	62.5	31.5	90.8
3.0	98.8	891.9	33.0	0.3	0.0	63.0	31.1	88.7
3.5	98.4	884.3	33.5	1.4	0.2	63.5	30.8	86.5
4.0	97.9	875.7	34.0	3.0	0.8	64.0	30.4	84.2
4.5	97.3	865.9	34.5	4.6	2.0	64.5	29.9	81.9
5.0	96.7	855.2	35.0	6.2	3.5	65.0	29.5	79.5
5.5	96.0	842.7	35.5	7.8	5.5	65.5	29.1	77.2
6.0	95.2	829.2	36.0	9.3	7.9	66.0	28.6	74.8
6.5	94.4	814.9	36.5	10.7	10.5	66.5	28.2	72.5
7.0	93.5	799.7	37.0	12.1	13.5	67.0	27.7	70.0
7.5	92.6	783.6	37.5	13.5	16.7	67.5	27.2	67.6
8.0	91.6	766.9	38.0	14.9	20.2	68.0	26.7	65.1
8.5	90.5	749.4	38.5	16.1	23.8	68.5	26.2	62.7
9.0	89.4	731.2	39.0	17.4	27.7	69.0	25.7	60.2
9.5	88.3	712.5	39.5	18.6	31.6	69.5	25.1	57.8
10.0	87.1	693.1	40.0	19.8	35.7	70.0	24.6	55.3
10.5	85.7	670.8	40.5	20.9	39.8	70.5	24.1	53.3
11.0	84.2	648.2	41.0	21.9	43.9	71.0	23.7	51.2
11.5	82.7	625.3	41.5	22.9	48.1	71.5	23.2	49.2
12.0	81.2	602.3	42.0	23.9	52.2	72.0	22.7	47.2
12.5	79.6	579.0	42.5	24.8	56.4	72.5	22.2	45.2
13.0	78.0	555.7	43.0	25.7	60.4	73.0	21.7	43.2
13.5	76.3	532.4	43.5	26.5	64.4	73.5	21.2	41.3
14.0	74.6	509.1	44.0	27.3	68.3	74.0	20.7	39.3
14.5	72.9	485.8	44.5	28.1	72.1	74.5	20.2	37.4
15.0	71.1	462.7	45.0	28.8	75.8	75.0	19.7	35.5
15.5	69.3	439.1	45.5	29.5	79.3	75.5	19.3	33.9
16.0	67.4	415.8	46.0	30.1	82.7	76.0	18.8	32.4
16.5	65.6	392.9	46.5	30.7	85.9	76.5	18.4	30.8
17.0	63.6	370.3	47.0	31.2	89.9	77.0	17.9	29.3
17.5	61.7	348.1	47.5	31.7	91.8	77.5	17.4	27.8
18.0	59.8	326.5	48.0	32.1	94.4	78.0	17.0	26.4
18.5	57.8	305.3	48.5	32.6	96.9	78.5	16.5	24.9
19.0	55.8	284.7	49.0	32.9	99.2	79.0	16.0	23.5
19.5	53.8	264.7	49.5	33.3	101.2	79.5	15.6	22.1
20.0	51.8	245.3	50.0	33.6	103.1	80.0	15.1	20.8
20.5	49.7	226.1	50.5	33.9	104.8	80.5	14.8	20.0
21.0	47.6	207.5	51.0	34.1	106.3	81.0	14.5	19.3
21.5	45.6	189.8	51.5	34.3	107.6	81.5	14.3	18.6
22.0	43.5	172.8	52.0	34.5	108.7	82.0	14.0	17.8
22.5	41.4	156.7	52.5	34.6	109.6	82.5	13.7	17.1
23.0	39.3	141.3	53.0	34.7	110.3	83.0	13.4	16.4
23.5	37.2	126.8	53.5	34.8	110.8	83.5	13.1	15.7
24.0	35.2	113.0	54.0	34.9	111.1	84.0	12.8	15.0
24.5	33.1	100.1	54.5	34.9	111.2	84.5	12.5	14.4
25.0	31.0	88.1	55.0	34.9	111.1	85.0	12.2	13.7
25.5	29.0	76.8	55.5	34.8	110.7	85.5	12.2	13.6
26.0	26.9	66.3	56.0	34.7	110.2	86.0	12.1	13.4
26.5	24.9	56.7	56.5	34.6	109.4	86.5	12.1	13.3
27.0	22.9	47.9	57.0	34.5	108.5	87.0	12.0	13.2
27.5	20.9	39.9	57.5	34.3	107.5	87.5	11.9	13.0
28.0	18.9	32.7	58.0	34.1	106.3	88.0	11.9	12.9
28.5	17.0	26.3	58.5	33.9	104.9	88.5	11.8	12.8
29.0	15.0	20.6	59.0	33.6	103.5	89.0	11.7	12.6
29.5	13.1	15.7	59.5	33.4	101.8	89.5	11.7	12.5

Exhibit 17.1

Compliance with Radiofrequency Radiation Guidelines

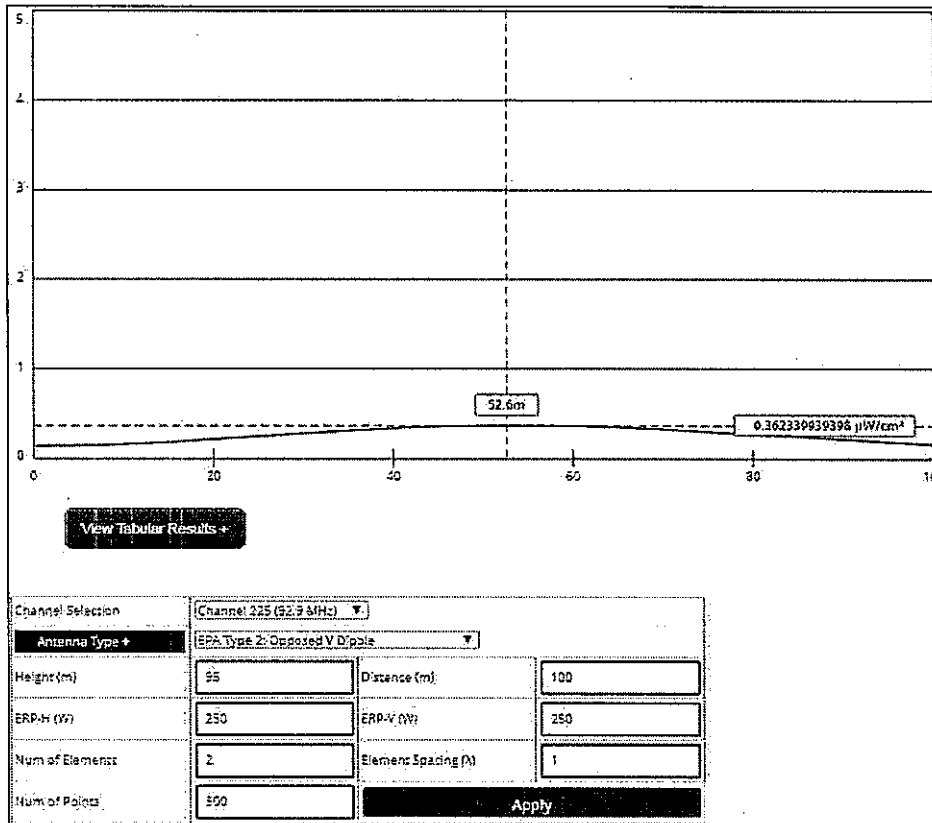
The RF Compliance Study has been evaluated for human exposure to non-ionizing radiofrequency radiation at the transmitter site. The site is intended to house multiple transmitters. The potential for human exposure to non-ionizing radiofrequency radiation at the proposed transmitter site has therefore been evaluated with regards to the §1.1307(b)(3), five percent (5%) contribution rule, for multiple transmitter sites.

The proposed operation will broadcast from an antenna COR mounted 95 meters above ground level (AGL). The facility will operate with a two bay antenna employing EPA Type 2 elements as defined by *FM Model - Appendix B* issued March 31, 2016¹. This facility will not operate with HD/IBOC facilities at this time.

To evaluate the total exposure to non-ionizing radio-frequency radiation with regards to the five percent contribution exclusion rule, it is necessary to establish 5.0% of the maximum permissible limit. 5.0% of the 200 $\mu\text{W}/\text{cm}^2$ results in 10 $\mu\text{W}/\text{cm}^2$. Therefore if the resulting contribution is less than or equal to 10 $\mu\text{W}/\text{cm}^2$ or 5.0%, the exposure is concluded to be within the guidelines of OET Bulletin No. 65 (Edition 97-01) and §1.1307(b)(3). Protection of the more restrictive uncontrolled limit implies protection of the controlled limit.

Inspection of the graph below indicates the maximum contribution for the uncontrolled environment is less than the 10 $\mu\text{W}/\text{cm}^2$ (5.0%) limit as set forth by §1.1307(b)(3), therefore the facility is in compliance with FCC guidelines. §1.1307(b)(3) states that facilities contributing less than five percent of the exposure limit at locations with multiple transmitters are categorically excluded from responsibility for taking any corrective action in the areas where its contribution is less than five percent. Since this instant application meets the five percent exclusion test at all ground level areas, the impact of the proposed facility may be considered independently from other facilities operating at or nearby this site. It is believed the impact of the proposed operation should not be considered to be a factor at ground level as defined under §1.1307(b)(3).

In addition to the protection afforded by the proposed antenna height above ground, the facility is or will be properly marked with signs, and entry to the facility will be restricted by means of fencing with locked doors and/or gates if required. Any other means that may be required to protect employees and the general public will also be employed. In the event work is required in proximity to the antenna(s) such that the person or persons working in the area will be potentially exposed to fields in excess of the current guidelines, an agreement signed by all broadcast parties at the site will be in effect for the offending transmitter(s) to reduce power, or cease operation during the critical period.



¹ The current FM Model web-based software application employs the standards as detailed in OET Bulletin No. 65 (Edition 97-01). FM radiofrequency radiation levels have been predicted using both the array pattern, the calculations of which are based on the number of bays in the antenna and wavelength spacing between the bays, and the element pattern. The element pattern has been determined by using measured element data prepared by the EPA and published in "An Engineering Assessment of the Potential Impact of Federal Radiation Protection Guidance on the AM, FM and TV Services," by Paul C. Gailey and Richard Tell - April 1985, U.S. Environmental Protection Agency. The results of the evaluation for the FM station have been shown at the end of this RF compliance discussion. To ensure complete protection, the maximum FM contribution has been assumed without regard to any restricted access fencing distance.

