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72957
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COPY

October 26, 2012

Marnie K. Sarver
202.719.4289
msarver@wileyrein.com

BY HAND DELIVERY

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Room TW-A325
Washington, DC 20554

RECEIVED
FILED/ACCEPTED

OCT 26 2012

Federal Communications Commission
Office of the Secretary

Re: **Polnet Communications, Ltd.**
Station WEEF(AM), Deerfield, Illinois (Fac. ID 72957)
Amendment to BMML-20120919ACW

Dear Ms. Dortch:

On behalf of Polnet Communications, Ltd., licensee of AM station WEEF, Deerfield, Illinois, we are submitting herewith an original and two copies of an amendment to BMML-20120919ACW.

Sincerely,

Marnie K. Sarver

Marnie K. Sarver

FOR
FCC
USE
ONLY

OCT 26 2012

Federal Communications Commission
Office of the Secretary

FCC 302-AM
APPLICATION FOR AM
BROADCAST STATION LICENSE

(Please read instructions before filling out form.)

FOR COMMISSION USE ONLY

FILE NO.

SECTION I - APPLICANT FEE INFORMATION

1. PAYOR NAME (Last, First, Middle Initial)

N/A

MAILING ADDRESS (Line 1) (Maximum 35 characters)

MAILING ADDRESS (Line 2) (Maximum 35 characters)

CITY

STATE OR COUNTRY (if foreign address)

ZIP CODE

TELEPHONE NUMBER (include area code)

CALL LETTERS
WEEF(AM)

OTHER FCC IDENTIFIER (If applicable)
72957

2. A. Is a fee submitted with this application?

☐ Yes ☐ No

B. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1112).

☐ Governmental Entity

☐ Noncommercial educational licensee

☒ Other (Please explain): **Amendment to BMML-
20120919ACW - No fee required.**

C. If Yes, provide the following information:

Enter in Column (A) the correct Fee Type Code for the service you are applying for. Fee Type Codes may be found in the "Mass Media Services Fee Filing Guide." Column (B) lists the Fee Multiple applicable for this application. Enter fee amount due in Column (C).

(A)

FEE TYPE CODE		

(B)

FEE MULTIPLE			
0	0	0	1

(C)

FEE DUE FOR FEE TYPE CODE IN COLUMN (A)
\$

FOR FCC USE ONLY

To be used only when you are requesting concurrent actions which result in a requirement to list more than one Fee Type Code.

(A)

--	--	--

(B)

0	0	0	1
---	---	---	---

(C)

\$

FOR FCC USE ONLY

ADD ALL AMOUNTS SHOWN IN COLUMN C,
AND ENTER THE TOTAL HERE.
THIS AMOUNT SHOULD EQUAL YOUR ENCLOSED
REMITTANCE.

TOTAL AMOUNT
REMITTED WITH THIS
APPLICATION

\$

FOR FCC USE ONLY

SECTION II - APPLICANT INFORMATION		
1. NAME OF APPLICANT Polnet Communications, Ltd.		
MAILING ADDRESS 3656 W. Belmont Ave.		
CITY Chicago	STATE IL	ZIP CODE 60618

AMENDMENT TO BMML-20120919ACW.

Please see Engineering Statement E-A.

2. This application is for:

- ☒ Commercial ☐ Noncommercial
- ☒ AM Directional ☐ AM Non-Directional

Call letters WEEF	Community of License Deerfield, IL	Construction Permit File No. BMJP-20050118AEC	Modification of Construction Permit File No(s).	Expiration Date of Last Construction Permit 9/21/2012
-----------------------------	----------------------------------------------	---------------------------------------------------------	-------------------------------------------------	-----------------------------------------------------------------

3. Is the station now operating pursuant to automatic program test authority in accordance with 47 C.F.R. Section 73.1620?

☐ Yes ☒ No

If No, explain in an Exhibit.

Exhibit No.
See Statement E-A.

4. Have all the terms, conditions, and obligations set forth in the above described construction permit been fully met?

☒ Yes ☐ No

If No, state exceptions in an Exhibit.

Exhibit No.

5. Apart from the changes already reported, has any cause or circumstance arisen since the grant of the underlying construction which would result in any statement or representation contained in the construction permit application to be now incorrect?

☐ Yes ☒ No

If Yes, explain in an Exhibit.

Exhibit No.

6. Has the permittee filed its Ownership Report (FCC Form 323) or ownership certification in accordance with 47 C.F.R. Section 73.3615(b)?

☐ Yes ☐ No

☒ Does not apply

If No, explain in an Exhibit.

Exhibit No.

7. Has an adverse finding been made or an adverse final action been taken by any court or administrative body with respect to the applicant or parties to the application in a civil or criminal proceeding, brought under the provisions of any law relating to the following: any felony; mass media related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination?

☐ Yes ☒ No

Exhibit No.

If the answer is Yes, attach as an Exhibit a full disclosure of the persons and matters involved, including an identification of the court or administrative body and the proceeding (by dates and file numbers), and the disposition of the litigation. Where the requisite information has been earlier disclosed in connection with another application or as required by 47 U.S.C. Section 1.65(c), 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 the date of filing; and (ii) the disposition of the previously reported matter.

8. Does the applicant, or any party to the application, have a petition on file to migrate to the expanded band (1605 - 1705 kHz) or a permit or license either in the existing band or expanded band that is held in combination (pursuant to the 5 year holding period allowed) with the AM facility proposed to be modified herein?

☐ Yes ☒ No

Exhibit No.

If Yes, provide particulars as an Exhibit.

The APPLICANT hereby waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because use of the same, whether by license or otherwise, and requests and authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended).

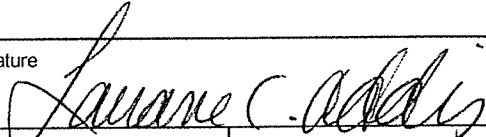
The APPLICANT acknowledges that all the statements made in this application and attached exhibits are considered material representations and that all the exhibits are a material part hereof and are incorporated herein as set out in full in the application.

CERTIFICATION

1. By checking Yes, the applicant certifies, that, in the case of an individual applicant, he or she is not subject to a denial of federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862, or, in the case of a non-individual applicant (e.g., corporation, partnership or other unincorporated association), no party to the application is subject to a denial of federal benefits that includes FCC benefits pursuant to that section. For the definition of a "party" for these purposes, see 47 C.F.R. Section 1.2002(b).

☒ Yes ☐ No

2. 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.

Name Lauane Addis	Signature 	
Title Assistant Secretary	Date 10/26/2012	Telephone Number 773-588-6300

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 (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503)

FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT AND THE PAPERWORK REDUCTION ACT

The solicitation of personal information requested in this application is authorized by the Communications Act of 1934, as amended. The Commission will use the information provided in this form to determine whether grant of the application is in the public interest. In reaching that determination, or for law enforcement purposes, it may become necessary to refer personal information contained in this form to another government agency. In addition, all information provided in this form will be available for public inspection. If information requested on the form is not provided, the application may be returned without action having been taken upon it or its processing may be delayed while a request is made to provide the missing information. Your response is required to obtain the requested authorization.

Public reporting burden for this collection of information is estimated to average 639 hours and 53 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, can be sent to the Federal Communications Commission, Records Management Branch, Paperwork Reduction Project (3060-0627), Washington, D. C. 20554. Do NOT send completed forms to this address.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.

Statement E-A
AMENDMENT TO BMML-20120919ACW
(Application for Direct Power Measurement and Station License)
WEEF Deerfield, Illinois

Summary

This Amendment has been prepared on behalf of *Polnet Communications, Ltd.* ("Polnet"), permittee of WEEF, Deerfield, Illinois, Facility ID 72957.

Polnet was issued a Construction Permit, BMJP-20050118AEC, to change WEEF's city of license, transmitter site location, operating power, and to add nighttime operation. This was accomplished by diplexing the new WEEF operation into the antenna system of co-owned WKTA¹. The authorized WEEF construction was completed and an *Application for License* has been filed with the FCC to cover this Construction Permit (see BMML-20120919ACW).

This Amendment is being supplied following informal discussions with Commission Staff to supplement the WEEF *Application for License*, and also to provide corrections as necessary to the previously supplied materials.

Array Center Updated in the Associated Antenna Structure Registrations

In the WEEF *Application for License*, a request was made to update the reference coordinates² for the Station. (This request was also supplied in the separate *Application for License* for collocated WKTA.) As discussed in these Applications for License, it was necessary to also update the array center coordinates in the pertinent FCC antenna structure registration records for these *Polnet* antenna system towers in use at this site (see ASR Numbers 1253376, 1253736, 1253385, 1253380, 1253738, and 1253382). This separate work has now been completed. The FCC Form 854 file numbers generated for this ASRN information updates were A0788691, A0788706, A0788698, A0788699, A0788709, and A0788700. The updated ASRNs were granted on October 25, 2012.

Proposed Corrections to BMML-20120919ACW

Two typographical errors were noted by Commission Staff, and one was independently discovered by the undersigned. Also, one information point was inadvertently omitted in the original

¹ WKTA also holds a Construction Permit for certain changes in its transmitting facility, (undertaken simultaneously with the WEEF construction). FCC Form 302-AM has been separately filed for WKTA covering that construction.

² In NAD-27 terms, the updated coordinates are 42° 08' 22.17" N, 87° 53' 07.33" W (or when rounded to the nearest second, per the usual FCC convention, 42° 08' 22" N, 87° 53' 07" W). The NAD-83 equivalent coordinates are 42° 08' 22.3" N, 87° 53' 07.6" W.

Statement E-A
AMENDMENT TO BMML-20120919ACW
(Application for Direct Power Measurement and Station License)
WEEF Deerfield, Illinois
(Page 2)

Application for License filing. Accordingly, these matters are corrected herein, as informally requested by Commission Staff, through the submission of this Amendment and the providing of the replacement pages following this Statement.

The first typographical error is found on Page 8 of the original **Statement E** filed as an attachment to the WEEF Application for License. In particular, referencing the summary tabulation for the open circuit base analysis for "Tower 4", the value supplied in the 6th column for measured reactance was $+j\ 46.87$ ohms. However, the correct value is actually $+j\ 56.87$ ohms. (The error is only in this one tabulation - the correct value was shown on the companion WCAP printout of the originally included Page 12.) With the typo herein corrected, the value is within the required tolerance. A replacement Page 8 immediately follows this Statement.

The second typographical error is found on Page 80 in the tabulation of sample line characteristic impedance data. Specifically, the 5th tower "- 45 degree" reactance data was entered as $-j\ 79.97$ ohms in the table when the intended number was $-j\ 49.97$ ohms, as measured. With the typo corrected, the value is within the required tolerance. A replacement Page 80 immediately follows this Statement.

An omission was noted in the intermodulation tabulation report provided in Page 93 of the original **Statement E**. Although both of the "2A-B" intermodulation combinations (yielding results of 1230 kHz and 1530 kHz) were considered and observations made, the 1530 kHz data was inadvertently omitted from the table³. This omission is corrected in the table provided in the replacement Page 93, which follows this Statement.

Finally, it was noted by the undersigned that an inconsequential typographical error occurred in Page 4 of FCC Form 302-AM (Section III) at Paragraph 8, in the section listing "Antenna indications for directional operation" (under the "Towers" column). As a courtesy in the original filing, and for purposes of clarity, the antenna structure registration numbers (ASRN) for each tower were included in the tabulation. Unfortunately, the ASRN for the Tower 4 (SE) entry had an error - the correct ASRN for Tower 4 is 1253380. Accordingly, a corrected FCC Form 302-AM, Page 4 follows this Statement.

³ The 1530 kHz product frequency was observed in two locations under various mode combinations, but only noise was present - nothing was readable on the meter for that frequency.

Statement E-A
AMENDMENT TO BMML-20120919ACW
(Application for Direct Power Measurement and Station License)
WEEF Deerfield, Illinois
(Page 3)

Clarification and Amplification

The WEEF (and collocated WKTA) antenna system is immediately adjacent to 6 existing cellular radio towers. After informal discussions with Commission Staff, it was decided to include these structures within the models for WEEF and WKTA. These towers are preexisting and grounded. Since there is no practical way to float these towers above ground, they must be considered as-is. However, their influence on the antenna system was captured by the impedance measurements taken at the bases of the array towers. The model was successfully converged with this measured data for both stations.

Because these structures are close to the WEEF/WKTA antenna arrays, each cell tower employs skirt wires which terminate into dual section detuning circuits. As informally discussed with Commission Staff, structures with skirt wires cannot be modeled using the simplified techniques of the present rules, so an approach was agreed upon that will be repeatable and logical. For the purposes of accounting for their presence and the detuning, the cell towers are initially modeled as simple shorted wires, and an array synthesis was run with zero fields in the cell towers. Representative detuning values were found, confirming that detuning is feasible for these structures, and the cell towers were detuned accordingly. An array synthesis was then run for each pattern, inputting the array parameters for the driven towers, and zero fields for the cell towers, considering the representative detuning conjugate loads on the cell towers and voltage sources on the driven elements. Array monitor parameters were then derived in the customary manner. The results were confirmed and cross-checked and informally discussed with Commission Staff. The proof materials were thus completed and filed using the approach outlined above.

Statement E-A / WEEF License Application Amendment - Preparer's Certification

This Amendment, **Statement E-A** and the included materials, have been prepared on behalf of *Polnet Communications, Ltd.*, by the undersigned or under his direction and are true and correct to the best of his knowledge and belief. Mr. Cavell's qualifications are a matter of record before the FCC.

Respectfully submitted,

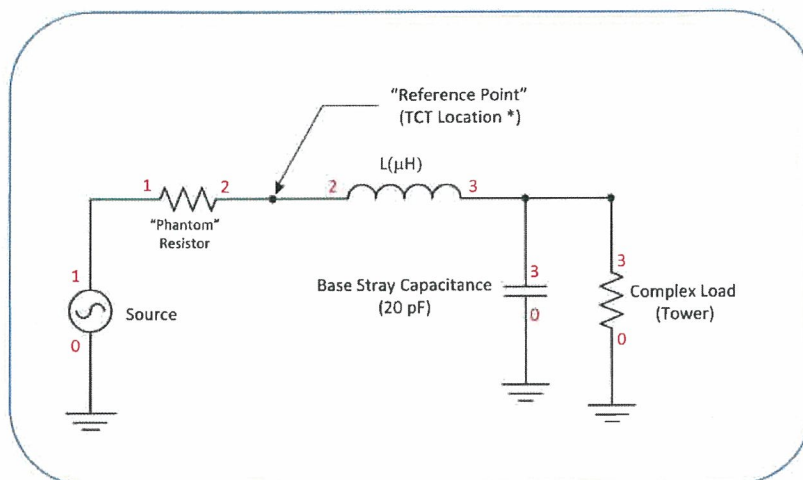


Garrison C. Cavell October 25, 2012
Cavell, Mertz & Associates, Inc.
7732 Donegan Drive, Manassas, Virginia 20109
703.392.9090; Facsimile 703.392.9559
E-Mail: gcavell@cavellmertz.com

Statement E-A
AMENDMENT TO BMML-20120919ACW
(Application for Direct Power Measurement and Station License)
WEEF Deerfield, Illinois
 (Page 4)

(Replacement Statement E - Page 8)

Representative “Open Circuit” Tower Base Environment Schematic for all WEEF Towers



Summary of Completed Open Circuit Analysis of WEEF Tower Base Environment

Tower Number and Location	Tower Feed Inductance	Tower Feed Reactance	Modeled Complex Load Impedance	Reference Point* Z_{ATU} Modeled	Reference Point* Z_{ATU} Measured
Tower 1 (SW) (ASRN 1253376)	4.5018 μ H	+j 40.448 Ω	37.133 +j 18.798 Ω	37.38 +j 59.060 Ω	37.39 +j 59.06 Ω
Tower 2 (WC) (ASRN 1253736)	2.6810 μ H	+j 24.089 Ω	13.949 -j 70.487 Ω	13.60 -j 45.550 Ω	14.05 -j 45.55 Ω
Tower 3 (NW) (ASRN 1253385)	2.9946 μ H	+j 26.906 Ω	42.067 +j 27.242 Ω	42.48 +j 53.970 Ω	42.48 +j 53.97 Ω
Tower 4 (SE) (ASRN 1253380)	4.6322 μ H	+j 41.620 Ω	40.556 +j 15.505 Ω	40.78 +j 56.870 Ω	40.78 +j 56.87 Ω
Tower 5 (EC) (ASRN 1253738)	4.8330 μ H	+j 43.424 Ω	14.589 -j 88.070 Ω	14.14 -j 43.310 Ω	14.14 -j 43.31 Ω
Tower 6 (NE) (ASRN 1253382)	4.3172 μ H	+j 38.790 Ω	40.273 +j 12.217 Ω	40.45 +j 50.740 Ω	40.45 +j 50.74 Ω

Notes:

* - At ATU Output Jack J-Plug (TCT Location); Designated as ATU “Reference Point”

Base Insulator Reactance at 1430 kHz: - j 5,565 Ω (20 pF) = Lumped Load Assumption

As shown, the modeled and measured base impedances at the ATU output jacks (with the other towers open circuited at their ATU output jacks) agree with each other to within +/- 2 ohms and +/- 4 percent for resistance and reactance, as required under the Commission’s MoM Rules.

Statement E-A
AMENDMENT TO BMML-20120919ACW
(Application for Direct Power Measurement and Station License)
WEEF Deerfield, Illinois
(Page 5)

(Replacement Statement E - Page 80)
Sampling System Measurements

The characteristic impedance of each sample line was calculated using the following formula, where $R_1 + jX_1$ and $R_2 + jX_2$ are the measured impedances at the +45 and -45 degree offset frequencies, respectively:

$$Z_0 = \sqrt{\sqrt{R_1^2 + X_1^2} \cdot \sqrt{R_2^2 + X_2^2}}$$

Tower	-45 Degree Offset Frequency	-45 Degree Measured Impedance	+45 Degree Offset Frequency	+45 Degree Measured Impedance	Calculated Characteristic Impedance
1 (SW)	962.92 kHz	5.346 -j 49.864 Ω	1348.08 kHz	8.021 +j 49.832 Ω	50.31 Ω
2 (WC)	962.25 kHz	5.395 -j 49.425 Ω	1347.15 kHz	7.977 +j 49.318 Ω	49.84 Ω
3 (NW)	961.92 kHz	5.354 -j 49.450 Ω	1346.68 kHz	7.890 +j 49.960 Ω	50.16 Ω
4 (SE)	962.75 kHz	5.216 -j 50.010 Ω	1347.85 kHz	7.920 +j 49.728 Ω	50.32 Ω
5 (EC)	962.50 kHz	5.317 -j 49.970 Ω	1347.50 kHz	7.957 +j 49.597 Ω	50.24 Ω
6 (NE)	961.83 kHz	5.366 -j 49.600 Ω	1346.57 kHz	7.942 +j 49.104 Ω	49.82 Ω

As shown, the sampling line measured characteristic impedances meet the Commission's requirement that they be equal within +/-2 ohms.

Again, the results of impedance measurements taken with the lines terminated with TCTs were provided in a preceding section (see Page 77).

Reference Field Strength Measurements

FCC Rule Section 73.151(c)(3) states that "Reference field strength measurement locations shall be established in directions of pattern minima and maxima" as companion information for a method of moments proof of performance. The following tabulations are presented in accordance with the requirements of this rule section. (The CP specified "monitored radials" were used as they correspond to the "minima" locations. Pattern maxima were derived by inspection of the standard patterns.) Accordingly, measurement points were then selected at three locations along each of the radials in the daytime pattern minima (209, 241.5°, 315.5°, and 339°), on the (major lobe) maxima radial of 93°, and on the local (minor lobe) maxima of 281°. Similarly, measurement points were then selected at three

Statement E-A
AMENDMENT TO BMML-20120919ACW
(Application for Direct Power Measurement and Station License)
WEEF Deerfield, Illinois
(Page 6)

(Replacement Statement E - Page 93)

<u>Intermodulation/Spur Checks</u>						
Signal	Frequency	Both Stations Day Mode	Both Stations Night Mode	WKTA Day & WEEF Night	WKTA Night & WEEF Day	Observed Station Audio
F1 (WKTA)	1330 kHz Attenuation Required	1090 mV/m <i>>75.04 dB req</i>	90 mV/m <i>>71.75 dB req</i>	1310 mV/m <i>>71.75 dB req</i>	100 mV/m <i>>75.04 dB req</i>	1330 - WKTA
F2 (WEEF)	1430.0 kHz Attenuation Required	600 mV/m <i>>75.04 dB req</i>	87 mV/m <i>>71.75 dB req</i>	88 mV/m <i>>71.75 dB req</i>	600 mV/m <i>>75.04 dB req</i>	1430 - WEEF
F1 + F2	2760 kHz	0.05 <i>81.6 dB down 86.8 dB down</i>	0.016 <i>74.7 dB down 75.0 dB down</i>	0.02 <i>72.9 dB down 96.3 dB down</i>	n/r <i>n/a n/a</i>	1330 - WKTA
F1 + 2F2	4190 kHz	0.023 <i>88.3 dB down 93.5 dB down</i>	n/r <i>n/a n/a</i>	0.019 <i>73.3 dB down 96.8 dB down</i>	0.011 <i>94.7 dB down 79.2 dB down</i>	1330 - WKTA
F1 + 3F2	5620 kHz	n/r <i>n/a</i>	n/r <i>n/a</i>	n/r <i>n/a</i>	n/r <i>n/a</i>	None
2F1 + F2	4090 kHz	0.06 <i>80.0 dB down 85.2 dB down</i>	n/r <i>n/a n/a</i>	n/r <i>n/a n/a</i>	n/r <i>n/a n/a</i>	None
2F1 - F2	1230 kHz	0.07 <i>78.7 dB down 83.8 dB down</i>	0.015 <i>75.3 dB down 75.6 dB down</i>	0.013 <i>76.6 dB down 100.1 dB down</i>	0.016 <i>91.5 dB down 75.9 dB down</i>	*Noise and WEEF
2F2 - F1	1530 kHz	n/r <i>n/a</i>	n/r <i>n/a</i>	n/r <i>n/a</i>	n/r <i>n/a</i>	*Noise
3F1 - F2	2560 kHz	0.013 <i>93.3 dB down 98.5 dB down</i>	0.012 <i>77.2 dB down 77.5 dB down</i>	n/r <i>n/a n/a</i>	0.016 <i>91.5 dB down 75.9 dB down</i>	Noise
3F1 - 2F2	1130 kHz	n/r <i>n/a</i>	n/r <i>n/a</i>	n/r <i>n/a</i>	n/r <i>n/a</i>	*Noise

Note 1- Not included are products beyond meter range or falling in a not-realizable frequency.
Note 2- "n/r" signifies not audible or readable
Note 3- "n/a" signifies no data - not calculable
Note 4- "*" signifies unreadable due to interference caused by other stations in the area

Statement E-A
AMENDMENT TO BMML-20120919ACW
(Application for Direct Power Measurement and Station License)
WEEF Deerfield, Illinois
(Page 7)

(Replacement FCC Form 302-AM, Section III)

SECTION III - LICENSE APPLICATION ENGINEERING DATA

Name of Applicant

Polnet Communications, Ltd.

PURPOSE OF AUTHORIZATION APPLIED FOR: (check one)

☒ Station License

☐ Direct Measurement of Power

1. Facilities authorized in construction permit

Call Sign	File No. of Construction Permit (if applicable)	Frequency (kHz)	Hours of Operation	Power in kilowatts	
WEFF	BMJP-20050118AEC	1430	Unlimited	Night 0.75	Day 1.6

2. Station location

State	City or Town
Illinois	Deerfield

3. Transmitter location

State	County	City or Town	Street address (or other identification)
Illinois	Cook	Northbrook	4320 Dundee Road

4. Main studio location

State	County	City or Town	Street address (or other identification)
Illinois	Cook	Northbrook	4320 Dundee Road

5. Remote control point location (specify only if authorized directional antenna)

State	County	City or Town	Street address (or other identification)
Illinois	Cook	Northbrook	4320 Dundee Road

6. Has type-approved stereo generating equipment been installed?

☐ Yes ☒ No

7. Does the sampling system meet the requirements of 47 C.F.R. Section 73.68?

☒ Yes ☐ No

☐ Not Applicable

Attach as an Exhibit a detailed description of the sampling system as installed.

Exhibit No.
Statement E

8. Operating constants:

RF common point or antenna current (in amperes) without modulation for night system 4.025	RF common point or antenna current (in amperes) without modulation for day system 5.879
Measured antenna or common point resistance (in ohms) at operating frequency Night 50 Day 50	Measured antenna or common point reactance (in ohms) at operating frequency Night -3.6 Day -3.6

Antenna indications for directional operation

Towers	Antenna monitor Phase reading(s) in degrees		Antenna monitor sample current ratio(s)		Antenna base currents	
	Night	Day	Night	Day	Night	Day
1 (SW) ASRN 1253376	124.6	119.4	0.499	0.638	Not Required	Not Required
2 (WC) ASRN 1253736	0.0	91.5	1.000	1.187	Not Required	Not Required
3 (NW) ASRN 1253385	172.0	119.7	0.233	0.764	Not Required	Not Required
4 (SE) ASRN 1253380	177.6	19.7	0.167	0.785	Not Required	Not Required
5 (EC) ASRN 1253738	- 126.0	- 46.7	0.379	1.210	Not Required	Not Required
6 (NE) ASRN 1253382	- 173.4	0.0	0.260	1.000	Not Required	Not Required

Manufacturer and type of antenna monitor: Potomac Instruments AM-1901-6

SECTION III - Page 2

9. Description of antenna system (If directional antenna is used, the information requested below should be given for each element of the array. Use separate sheets if necessary.) Tower beacons included as part of electrical height for equipped towers 1, 3, 4, 6.

Type Radiator	Overall height in meters of radiator above base insulator, or above base, if grounded.	Overall height in meters above ground (without obstruction lighting)	Overall height in meters above ground (include obstruction lighting)	If antenna is either top loaded or sectionalized, describe fully in an Exhibit.
Uniform cross-section guyed, base insulated series fed towers	Twrs 1, 3, 4, 6 = 48.16 m Twrs 2, 5 = 33.02 m	Twrs 1, 3, 4 = 48.16 m Twrs 2, 5 = 34.5 m Twr 6 = 48.39 m	Twrs 1, 3, 4 = 49.1 m Twrs 2, 5 = 34.5 m Twrs 6 = 49.3 m	Exhibit No. N/A

Excitation ☒ Series ☐ Shunt

Geographic coordinates to nearest second. For directional antenna give coordinates of center of array. For single vertical radiator give tower location.

North Latitude	42 °	08 '	22 "	West Longitude	87 °	53 '	07 "
----------------	------	------	------	----------------	------	------	------

If not fully described above, attach as an Exhibit further details and dimensions including any other antenna mounted on tower and associated isolation circuits.

Exhibit No.
Statement E

Also, if necessary for a complete description, attach as an Exhibit a sketch of the details and dimensions of ground system.

Exhibit No.
Statement E

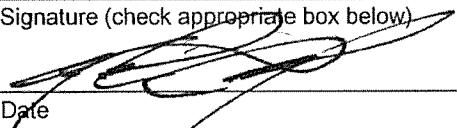
10. In what respect, if any, does the apparatus constructed differ from that described in the application for construction permit or in the permit?

Center of Array Coordinates differ slightly from information on file (by 0.83 seconds Latitude and 1.67 seconds in Longitude). Actual coordinates are 42 08' 22.17" N, 87 53' 07.33" W. Coordinates shown above are rounded to the nearest second per the instructions of this form.

11. Give reasons for the change in antenna or common point resistance.

New Construction. Not Applicable.

I certify that I represent the applicant in the capacity indicated below and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief.

Name (Please Print or Type)	Signature (check appropriate box below)
Garrison C. Cavell	
Address (include ZIP Code)	Date
Cavell, Mertz & Associates, Inc.	October 25, 2012
7732 Donegan Drive	Telephone No. (Include Area Code)
Manassas, Virginia 20109	(703) 392-9090

☐ Technical Director

☐ Registered Professional Engineer

☐ Chief Operator

☒ Technical Consultant

☐ Other (specify)