

ENGINEERING EXHIBIT E-2

APPLICATION FOR STATION LICENSE  
CONSTRUCTION PERMIT BPH-920306MA

WKNB - Clarendon, PA

Kinzua Broadcasting Co., Inc.  
Clarendon, PA

September 8, 1995

Prepared for: Mr. W. Leroy Schneck  
Kinzua Broadcasting Co., Inc.  
310 2nd Avenue  
Warren, PA 16365

**CARL E. SMITH CONSULTING ENGINEERS**

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Roy P. Stype, III

Earl L. Miller

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Approved by OMB  
3060-0506  
Expires 1/31/94

FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554

FCC 302-FM

FOR  
FCC  
USE  
ONLY

APPLICATION FOR FM  
BROADCAST STATION LICENSE

(Please read instructions before completing this form.)

FOR MASS MEDIA BUREAU USE ONLY

FILE NO.

Section I - GENERAL INFORMATION

1. APPLICANT NAME

Kinzua Broadcasting Co., Inc.

MAILING ADDRESS (Line 1) (Maximum 35 characters)

310 Second Ave.

MAILING ADDRESS (Line 2) (if required) (Maximum 35 characters)

CITY Warren	STATE OR COUNTRY (if foreign address) PA	ZIP CODE 16365
TELEPHONE NUMBER (include area code) 814/723-1310	CALL LETTERS WKNB	OTHER FCC IDENTIFIER (IF APPLICABLE)

FOR MAILING THIS APPLICATION, SEE INSTRUCTIONS FOR SECTION 1

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

Yes  No

B. If No, select the appropriate box to indicate reason for fee exemption (see 47 C.F.R. Section 1.1112) or reason a fee is not applicable and go to Question 3.

Governmental Entity  Noncommercial educational licensee  Other (Please explain):

C. If item 2.A. is 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 in Column (C) the result obtained from multiplying the value of the Fee Type Code in Column (A) by the number listed in Column (B).

(A)	(B)	(C)	FOR FCC USE ONLY
(1) FEE TYPE CODE M H R	FEE MULTIPLE (if required) 0 0 0 1	FEE DUE FOR FEE TYPE CODE IN COLUMN (A) \$ 135.00	

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)	(C)	FOR FCC USE ONLY
(2)	0 0 0 1	\$	

ADD ALL AMOUNTS SHOWN IN COLUMN C, LINES (1) THROUGH (2), AND ENTER THE TOTAL HERE. THIS AMOUNT SHOULD EQUAL YOUR ENCLOSED REMITTANCE.

TOTAL AMOUNT REMITTED WITH THIS APPLICATION \$ 135.00	FOR FCC USE ONLY
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**Section I - GENERAL INFORMATION (Page 2)**

3. (a) Has an adverse finding been made or an adverse final action 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 related to the following: any felony; mass media related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination?  Yes  No

(b) Is there now pending in any court or administrative body any proceeding involving any of the matters referred to in (a) above?  Yes  No

If the answer to (a) and/or (b) above 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), a statement of the facts upon which the proceeding is or was based or the nature of the offense alleged or committed, and a description of the current status or disposition of the matter.

Exhibit No.  
N/A

4. For permittees of commercial FM stations only:

Has permittee filed its Ownership Report (FCC Form 323) or ownership certification in accordance with 47 C.F.R. Section 73.3615(b)? See Instructions.  Yes  No  
 Does Not Apply

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 of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. (See 47 U.S.C. Section 304.)

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.

**CERTIFICATIONS**

5. 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. 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

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 of Applicant  Kinzua Broadcasting Co., Inc.	Signature
Title	Date

**WILLFUL FALSE STATEMENTS MADE 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).**

**FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY 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 this application is in the public interest. In reaching that determination, or for law enforcement purposes, it may be 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, processing of the application may be delayed or the application may be returned without action pursuant to the Commission's rules. Your response is required to obtain the requested authority.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. SECTION 552(a)(e)(3).

SECTION II - TECHNICAL DATA

1. Select one for each item. This application is for a:

- (a)  Request for program test authority  Station on automatic program test authority
- (b)  Commercial station  Noncommercial station
- (c)  Directional antenna  Non-directional antenna

SPECIAL OPERATING CONDITIONS MAY PROHIBIT AUTOMATIC PROGRAM TEST AUTHORITY

2. Call Sign: WKNB                      3. Frequency or channel: 282                      Class: A

4. Community of License: 

City	Clarendon	State	PA
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5. Select one that applies and enter the file number(s) on the appropriate line(s). This application:

- (a)  covers a construction permit. Original file number: BPH-920306MA  
as modified by: \_\_\_\_\_  
as extended by: BAPH-941107GE  
as replaced by: \_\_\_\_\_

(b)  modifies a license, file number: \_\_\_\_\_

6. Is this application being filed pursuant to MM Docket No. 88-375 (Class A Upgrade)? See Instructions.  Yes  No

If YES, attach the supplemental Exhibit to this application.

Exhibit No.  
N/A

IF YOU SELECTED 5(b), "MODIFIES A LICENSE," PROCEED TO ITEM 8.

7. Expiration date of construction permit: 

Month	2	Day	22	Year	96
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**THIS APPLICATION MUST BE ON FILE WITH THE COMMISSION BEFORE THE EXPIRATION DATE OF YOUR CONSTRUCTION PERMIT. SEE INSTRUCTIONS.**

SECTION II - TECHNICAL DATA (Page 2)

8. Description of facilities authorized by the construction permit or license noted in Item 5(a) or 5(b).

(a) Antenna coordinates:	<u>41</u> <sup>°</sup> <u>48</u> ' <u>50</u> " N. Lat.	<u>79</u> <sup>°</sup> <u>10</u> ' <u>04</u> " W. Lon.
	Horizontal	Vertical
(b) Effective radiated power:	<u>4.7</u> kW	<u>4.7</u> kW
(c) Beam tilt effective radiated power (if applicable):	<u>-</u> kW	<u>-</u> kW
(d) Radiation center above ground:	<u>44</u> meters	<u>44</u> meters
(e) Radiation center above mean sea level:	<u>617</u> meters	<u>617</u> meters
(f) Antenna height above average terrain:	<u>113</u> meters	<u>113</u> meters
(g) Overall tower height above ground (including antenna, all other appurtenances, and lighting, if any):	<u>68</u> meters	

9. Description of facilities as constructed:

(a) Antenna coordinates:	<u>41</u> <sup>°</sup> <u>48</u> ' <u>50</u> " N. Lat.	<u>79</u> <sup>°</sup> <u>10</u> ' <u>04</u> " W. Lon.
	Horizontal	Vertical
(b) Effective radiated power:	<u>4.7</u> kW	<u>4.7</u> kW
(c) Beam tilt effective radiated power (if applicable):	<u>-</u> kW	<u>-</u> kW
(d) Radiation center above ground:	<u>44</u> meters	<u>44</u> meters
(e) Radiation center above mean sea level:	<u>617</u> meters	<u>617</u> meters
(f) Antenna height above average terrain:	<u>113</u> meters	<u>113</u> meters
(g) Overall tower height above ground (including antenna, all other appurtenances, and lighting, if any):	<u>68</u> meters	

10. Are there any differences between the facilities described in Item 8 and those in Item 9?

Yes  No

IF YES, YOU MAY NOT BE ABLE TO USE THIS FORM. SEE INSTRUCTIONS.

Attach an Exhibit explaining in detail how these differences occurred.

Exhibit No.  
N/A

11. Attach an Exhibit that demonstrates compliance with the special operating conditions, terms, and obligations described in the construction permit.

Exhibit No.  
E-2

Does Not Apply

CONVERSION TO AND FROM METRIC:

METERS = 0.3048 X FEET      FEET = 3.281 X METERS

SECTION II - TECHNICAL DATA (Page 3)

12. Antenna description:	Make Harris	Model Number FML-3E	Number of Sections 3	Power Gain 1.5588
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If the antenna utilizes beam tilt, null fill, reduced spacing (less than one wavelength) between bays or the antenna is directional or specialized, an Exhibit must be attached. SEE INSTRUCTIONS.

Exhibit No. N/A
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13. Transmission line system description:

(a) Transmission line:	Make Andrew	Model Number HJ7-50A	Length in Meters 55 meters
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(b) Percent efficiency of entire transmission line system: 91.6 %

If any losses are included in 13(b) other than the loss of the transmission line listed in 13(a), attach an Exhibit detailing these additional losses. See Instructions.

Exhibit No. N/A
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14. Transmitter power output (in kilowatts): 3.29 kW

SEE INSTRUCTIONS TO CALCULATE TPO.

15. Operating constants:

- (a) D.C. plate current in last radio stage (amperes): 1.14 A
- (b) Applied D.C. voltage in last radio stage (volts): 3820 V
- (c) Efficiency of transmitter at operating power (percent): 75.5 %
- (d) RF transmission line meter reading (percent): 100 %

SEE INSTRUCTIONS TO CHECK OPERATING CONSTANTS.

16. Is the main studio within the 3.16 mV/m (70 dBu) field strength contour of the main facility?

Yes  No

If NO, attach an Exhibit pursuant to the Instructions.

Exhibit No. N/A
--------------------

17. Location of Main Studio: (P.O. BOXES ARE UNACCEPTABLE)

Street Address or Location Description 310 Second Avenue		
City Warren	County Warren	State PA

CONVERSION TO AND FROM METRIC:

METERS = 0.3048 X FEET      FEET = 3.281 X METERS

18. Location(s) of Remote Control Point(s):

(a)	Street Address or Location Description		
	310 Second Avenue		
	City	County	State
	Warren	Warren	PA

(b)	Street Address or Location Description		
	City	County	State

If there are additional remote control points, attach an Exhibit which describes their locations.

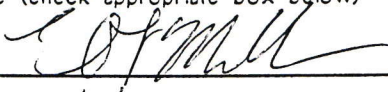
Exhibit No. N/A
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19. Location of Antenna Site:

Street Address or Location Description		
512 Mohawk Avenue, Ext.		
City	County	State
Warren	Warren	PA

20. CERTIFICATION OF PREPARER

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)
Earl L. Miller	
Address (include ZIP Code)	Date
2324 N. Cleveland-Massillon Road Bath, OH 44210	9/18/95
	Telephone No. (include Area Code)
	216/659-4440

- |   |   |
|---|---|
| <input type="checkbox"/> Technical Director | <input type="checkbox"/> Registered Professional Engineer |
| <input type="checkbox"/> Chief Operator     | <input checked="" type="checkbox"/> Technical Consultant  |
| <input type="checkbox"/> Other (specify)    |   |

FCC NOTICE TO INDIVIDUALS REQUIRED BY THE PAPERWORK REDUCTION ACT

Public reporting burden for this collection of information is estimated to average 4 hours per response. This estimate includes 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, Information Resources Branch, Room 416, Paperwork Reduction Project, Washington, D.C. 20554, and to the Office of Management and Budget, Paperwork Reduction Project (3060-0506), Washington, D.C. 20503.

THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.



ENGINEERING AFFIDAVIT

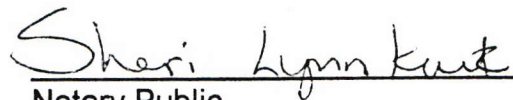
State of Ohio )  
 ) ss:  
County of Summit )

Roy P. Stype, III, being duly sworn, deposes and states that he is a graduate Electrical Engineer, a qualified and experienced Communications Consulting Engineer whose works are a matter of record with the Federal Communications Commission and that he is a member of the Firm of "Carl E. Smith Consulting Engineers" located at 2324 North Cleveland-Massillon Road in the Township of Bath, County of Summit, State of Ohio, and that the Firm has been retained by Kinzua Broadcasting Co., Inc. to prepare the attached "Engineering Exhibit E-2."

The deponent states that the Exhibit was prepared by him or under his direction and is true of his own knowledge, except as to statements made on information and belief and as to such statements, he believes them to be true.

  
\_\_\_\_\_  
Roy P. Stype, III

Subscribed and sworn to before me on **September 8, 1995.**

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

SHERI LYNN KURTZ, Notary Public  
Residence - Summit County  
State Wide Jurisdiction, Ohio  
My Commission Expires June 14, 2000

/SEAL/

ENGINEERING AFFIDAVIT

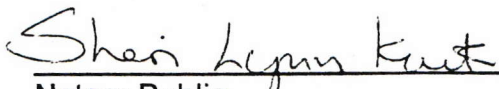
State of Ohio                    )  
  )  
County of Summit                )

Earl L. Miller, being duly sworn, deposes and states that he is a qualified and experienced Communications Consulting Engineer whose works are a matter of record with the Federal Communications Commission and that he is a member of the Firm of "Carl E. Smith Consulting Engineers" located at 2324 North Cleveland-Massillon Road in the Township of Bath, County of Summit, State of Ohio, and that the Firm has been retained by Kinzua Broadcasting Co., Inc. to prepare the attached "Engineering Exhibit E-2."

The deponent states that the Exhibit was prepared by him or under his direction and is true of his own knowledge, except as to statements made on information and belief and as to such statements, he believes them to be true.

  
\_\_\_\_\_  
Earl L. Miller

Subscribed and sworn to before me on **September 8, 1995.**

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

SHERI LYNN KURTZ, Notary Public  
Residence - Summit County  
State Wide Jurisdiction, Ohio  
My Commission Expires June 14, 2000

/SEAL/

## ENGINEERING STATEMENT

This engineering exhibit is prepared on behalf of the Kinzua Broadcasting Co., Inc., permittee of construction permit BPH-920306MA for new FM station WKNB - Clarendon, Pennsylvania. It supports an application for a station license following the completion of the construction authorized by this construction permit.

This construction permit authorized WKNB to construct facilities to operate on FM Channel 295A (106.9 MHz). The Report and Order in MM Docket 92-173, released on February 5, 1993, however, modified this construction permit to specify operation on Channel 282A (104.3 MHz), to accommodate the allotment of Channel 295B1 to Lakewood, New York. Pursuant to this ordered modification, the WKNB operating facilities have been constructed on Channel 282A, as reported in Paragraph 3 on Page 3 of FCC Form 302-FM.

This construction permit contains a condition requiring that impedance measurements be conducted on the antenna system of WNAE(AM) - Warren, Pennsylvania, following the installation of the WKNB antenna system, and that the results of these measurements be submitted to the FCC as part of an application for direct measurement of power for WNAE. These antenna base impedance measurements were conducted on August 30, 1995, and are detailed in an application for direct measurement of power for WNAE, which is being filed concurrently with the attached application for station license.

This construction permit also contains a condition indicating that the automatic program test provisions of Section 73.1620 of the FCC Rules do not apply in this situation and requiring that a certification be submitted as a part of this application docu-

menting that a fence, with appropriate warning signs, has been constructed to restrict access to any area within 5.2 meters of the tower base to prevent exposure to excessive levels of nonionizing radiation, before program tests will be authorized. This condition, however, contains a provision permitting documentation of compliance to be submitted prior to the filing of a license application, permitting this condition to be eliminated and automatic program tests to be authorized. The documentation required to comply with this condition was submitted to the FCC on August 30, 1995. Attached to this application is a copy of a responsive letter from the FCC eliminating this condition and permitting WKNB to conduct program tests pursuant to the automatic program test provisions of Section 73.1620 of the FCC Rules.

Based upon the above information, the WKNB operating facilities are in full compliance with construction permit BPH-920306MA, as modified by the Report and Order in MM Docket 92-173, and the station has commenced program tests.

Federal Communications Commission  
Washington, D.C. 20554

In reply refer to:  
1800B3-DEB

September 7, 1995

Mr. W. LeRoy Schneck, President  
Kinzua Broadcasting Company, Inc.  
310 Second Avenue  
Warren, PA 16365

In re: WKNB, Clarendon, PA  
Kinzua Broadcasting Co., Inc.  
BPH-920306MA

Dear Mr. Schneck:

Through your attorney's letter dated August 30, 1995, you have requested that WKNB (formerly WOVU) be permitted to commence automatic program test operations pursuant to construction permit BPH-920306MA. You have demonstrated that the fence enclosing the tower structure complies with the minimum distance required by the special operating condition on construction permit BPH-920306MA.

Accordingly, automatic program test authority for WKNB pursuant to construction permit BPH-920306MA IS HEREBY REINSTATED. WKNB may commence operations on Channel 282A (104.3 MHz) pursuant to 47 CFR § 73.1620 of the Commission's rules at such time it is ready.<sup>1</sup> A license application on FCC Form 302-FM must be submitted (with the appropriate

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<sup>1</sup> WKNB's construction permit specified Channel 295A (106.9 MHz), but was conditioned upon the outcome of MM Docket 92-173. Since the grant of that construction permit, the channel for that Clarendon, PA allotment was changed to Channel 282A (104.3 MHz) by the Report and Order in MM Docket 92-173, 8 FCC Rod 774, 58 Fed. Reg. 15289 (1993). This docket is now final. Consequently, WKNB cannot operate on the old channel. While no construction permit has been granted for WKNB for the new channel, we note that the site coordinates specified in the construction permit are fully spaced on Channel 282A pursuant to 47 CFR § 73.207. Therefore, we will permit WKNB to commence operations on Channel 282A with the facilities specified in the construction permit, and to specify Channel 282A in its license application.

(WKNB should be aware that since the allotment reference coordinates for Channel 282A are located 3.5 km from the permit coordinates, the permit coordinates are not currently protected on Channel 282A from encroaching applications by other stations. Any such applications will be processed on a first come / first served basis. Consequently, it is in the interest of WKNB to file its Form 302-FM application or a minor change application on Form 301 as soon as possible, to protect the permit coordinates on Channel 282A.)

filing fee) to cover this construction permit within 10 days of commencing program test operations. Please include a copy of this letter with the Form 302-FM application to document compliance with the fence condition.

Sincerely,

A handwritten signature in black ink, appearing to read "Dale E. Bickel". The signature is fluid and cursive, with a large loop at the end.

Dale E. Bickel  
Supervisory Electronics Engineer  
Audio Services Division  
Mass Media Bureau

cc: Borsari & Paxton



United States of America  
**FEDERAL COMMUNICATIONS COMMISSION**  
**FM BROADCAST STATION LICENSE**

Official Mailing Address:  
 -----

KINZUA BROADCASTING CO., INC  
 310 SECOND AVE  
 WARREN, PA 16365  
 -----

Authorizing Official:

*for James A. Gust*  
 -----

Daniel J Fontaine  
 Supervisory Engineer  
 Audio Services Division  
 Mass Media Bureau

Grant Date: JUL 31 1997

Call Sign: WKNB

This license expires 3:00 a.m.  
 local time, August 01, 1998

License File No.: BLH-970112KA

This license covers Permit No.: BPH-920306MA  
 as last extended by Permit No.: BMPH-970424JC

Subject to the provisions of the Communications Act of 1934, subsequent acts and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions set forth in this license, the licensee is hereby authorized to use and operate the radio transmitting apparatus herein described.

This license is issued on the licensee's representation that the statements contained in licensee's application are true and that the undertakings therein contained so far as they are consistent herewith, will be carried out in good faith. The licensee shall, during the term of this license, render such broadcasting service as will serve the public interest, convenience, or necessity to the full extent of the privileges herein conferred.

This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequency designated in the license beyond the term hereof, nor in any other manner than authorized herein. Neither the license nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This license is subject to the right of use or control by the Government of the United States conferred by Section 606 of the Communications Act of 1934.

Name of Licensee:

KINZUA BROADCASTING CO., INC.

Station Location:

PA-CLARENDON

Frequency (MHz): 104.3

Channel: 282

Class: A

Hours of Operation: Unlimited

Main Studio Address:

PA-310 SECOND AVENUE, WARREN

Transmitter location (address or description):

PA-512 MOHAWK AVENUE, EXT., WARREN

Remote Control Point Address:

PA - 310 SECOND AVENUE, WARREN

Transmitter: Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.

Transmitter output power: 3.3 kW

Antenna type: (directional or non-directional): Non-Directional

Description: HARRIS FML-3E, 3 SECTIONS

Antenna Coordinates: North Latitude : 41 48 50  
West Longitude : 79 10 4

	Horizontally Polarized Antenna	Vertically Polarized Antenna
Effective radiated power in the Horizontal Plane (kW).....:	4.7	4.7
Height of radiation center above ground (Meters).....:	44	44
Height of radiation center above mean sea level (Meters).....:	617	617
Height of radiation center above average terrain (Meters).....:	113	113

Antenna structure registration number: none

Overall height of antenna structure above ground  
(including obstruction lighting if any): 68 Meters



## Obstruction marking and lighting specifications for antenna structure:

It is to be expressly understood that the issuance of these specifications is in no way to be considered as precluding additional or modified marking or lighting as may hereafter be required under the provisions of Section 303(q) of the Communications Act of 1934, as amended.

## PARAGRAPH 01.0, FCC FORM 715 (OCTOBER 1985):

Antenna structures shall be painted throughout their height with alternate bands of aviation surface orange and white, terminating with aviation surface orange bands at both top and bottom. The width of the bands shall be equal and approximately one-seventh the height of the structure, provided however, that the bands shall not be more than 100 feet nor less than 1 and 1/2 feet in width. All towers shall be cleaned and repainted as often as necessary to maintain good visibility.

## PARAGRAPH 03.0, FCC FORM 715 (APRIL 1985):

There shall be installed at the top of the structure one 300 m/m electric code beacon equipped with two 620- or 700-watt lamps (PS-40, Code Beacon type), both lamps to burn simultaneously, and equipped with aviation red color filters. Where a rod or other construction of not more than 20 feet in height and incapable of supporting this beacon is mounted on top of the structure and it is determined that this additional construction does not permit unobstructed visibility of the code beacon from aircraft at any normal angle of approach, there shall be installed two such beacons positioned so as to insure unobstructed visibility of at least one of the beacons from aircraft at any normal angle of approach. The beacons shall be equipped with a flashing mechanism producing not more than 40 flashes per minute nor less than 12 flashes per minute with a period of darkness equal to approximately one-half of the luminous period.

## PARAGRAPH 11.0, FCC FORM 715 (APRIL 1985):

At the approximate mid point of the over-all height of the tower there shall be installed at least two 116- or 125-watt lamps (A21/TS) enclosed in aviation red obstruction light globes. Each light shall be mounted so as to insure unobstructed visibility of at least one light at each level from aircraft at any normal angle of approach.

## PARAGRAPH 21.0, FCC FORM 715 (APRIL 1985):

All lighting shall burn continuously or shall be controlled by a light sensitive device adjusted so that the lights will be turned on at a north sky light intensity level of about 35 foot candles and turned off at a north sky light intensity level of about 58 foot candles.

## Special operating conditions or restrictions:

1. The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency radiation in excess of FCC guidelines.

\*\*\* END OF AUTHORIZATION \*\*\*

10. Transmission line proposed to supply power to the antenna from the transmitter

Make Shively	Type No. 1313-1	Description 50 ohm Rigid Line
Size (nominal transverse dimension) in inches 3-1/2"	Length in feet 185	Rated efficiency in percent for this length 95.8%

1. Proposed operation

Transmitter power output in kilowatts 16.21	Power dissipation within transmission line in kilowatts 0.68
Antenna input power in kilowatts 15.53	Effective radiated power in kilowatts (Must be same as shown in Para. 2) Horizontal 50.0 Vertical 50.0

2. Will the studios, microphones, and other equipment proposed for transmission of programs be designed for compliance with the FM Technical Standards? Yes  No

3. If this application is for modification of construction permit state briefly as Exhibit No. DNA, the present status of construction and indicate when it is expected that construction will be completed.

14. Attach as Exhibit No. E-2 map(s) (Sectional Aeronautical Charts where obtainable) of the area proposed to be served and shown drawn thereon:

- (a) Proposed transmitter location and the radials along which the profile graphs have been prepared;
- (b) The 3.16 mV/m and the 1 mV/m contours predicted;
- (c) On the map(s) showing the 3.16 mV/m contour, clearly indicate the legal boundaries of the principal community proposed to be served. Submit a statement identifying the source relied upon for the placement of the boundaries;
- (d) Scale of miles.

Area and population: (latest census.)

Area (sq. mi.) within 1 mv/m contour 2749.4	Population within 1 mv/m contour 173,276
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15. (a) Attach as Exhibit No. a map(s) (topographic where obtainable, such as U. S. Geological Survey quadrangles) for the area within 15 miles of the proposed transmitter location and shown drawn thereon the following data:

ON FILE - NO CHANGE

1. Proposed transmitter location—accurately plotted;
2. Transmitter location and call letters of all radio stations (except amateur) and the location of established commercial and government receiving stations within 2 miles of the proposed transmitter location;
3. Proposed location of main studio;
4. Character of the area within 2 miles of proposed transmitter location, suitably designated as to residential, business, industrial, and rural nature.
5. At least eight radials each extending to a distance of ten or more miles from the proposed transmitter location, one or more of which must extend through the principal city or cities to be served.
6. If the proposed transmitter location is outside the boundaries of the principal community proposed to be served, the topography of the intervening area must be clearly shown.

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b. Attach as Exhibit No. profile graphs for the radials in (a)(5) above. Each graph shall show the elevation of the antenna radiation center. Identify each graph by its bearing from the proposed transmitter location. Direction true north shall be zero azimuth and angles measure clockwise. Show source of topographical data on each.

b. From the profile graphs in 15(b). for the eight mile distance between two and ten miles from the proposed transmitter location, and in accordance with the procedure prescribed in Section 73.313 of the Commission Rules, supply the following tabulation of data:

Radial bearing (degrees true)	Average elevation of radial (2-10 mi.) in feet above mean sea level	Height in feet of antenna radiation center above average elevation of radial 2-10 mi.)	Predicted distance in miles to the 3.16mv/m contour	Predicted distance in miles to the 1mv/m contour
0	1580 feet	482 feet	20.0 mi.	32.0 mi.
45	1750	312	16.7	27.5
90	1715	347	17.2	28.2
135	1528	534	21.0	33.0
180	1710	352	17.3	27.7
225	1780	282	15.7	26.3
270	1585	477	19.9	31.8
315	1595	467	19.7	31.4

(\*)

Average 1655 feet (horizontal)      Antenna height above average terrain 407 feet (vertical)  
(Average of above listed heights -- must be identical with Paragraph 2)

\* Radial over principal community if not included above. Do not include in Average.