

WILEY, REIN & FIELDING

1776 K STREET, N.W.
WASHINGTON, D.C. 20006
(202) 429-7000

WRITER'S DIRECT DIAL NUMBER

(202) 429-4239

September 25, 1998

30578
COPY
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SEP 25 1998

Federal Communications Commission
Office of Secretary
FACSIMILE
(202) 429-7049

BY HAND DELIVERY

Magalie Roman Salas, Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

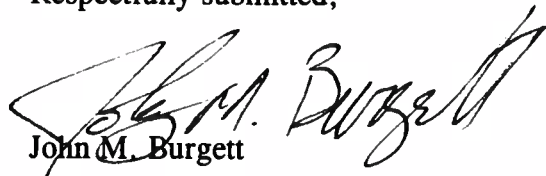
Re: FCC Form 302-FM
WWDM(FM), Sumter, South Carolina

Dear Ms. Salas:

Transmitted herewith in triplicate, on behalf of Clear Channel Radio Licenses, Inc., the licensee of WWDM(FM), Sumter, South Carolina, is an application on FCC Form 302-FM for the modification of the station's license. Specifically, this application is filed to report the replacement of the station's directional FM antenna. Pursuant to Section 73.1690(c)(3) of the Commission's rules, this facility change is permitted without the filing of an FCC Form 301 construction permit application. Accordingly, no filing fee is required.

If there are any questions regarding this matter, please contact the undersigned.

Respectfully submitted,


John M. Burgett

Enclosure

980925KB

FOR
FCC
USE
ONLY

FCC 302-FM

APPLICATION FOR FM BROADCAST STATION LICENSE

(Please read instructions before completing this form.)

FOR MASS MEDIA BUREAU USE ONLY

FILE NO. *BNLH-980925KB*

Section I - GENERAL

1. APPLICANT NAME		RECEIVED	
Clear Channel Radio Licenses, Inc.		SEP 25 1998	
MAILING ADDRESS (Line 1)		Federal Communications Commission	
3305 W. Mountain Rd., #60		Office of Secretary	
MAILING ADDRESS (Line 2)			
CITY	STATE OR COUNTRY (if foreign)	ZIP CODE	
Las Vegas	NV	99102	
TELEPHONE NUMBER (include area code)	CALL LETTERS	OTHER FCC IDENTIFIER (IF APPLICABLE)	
(210) 822-2828	WWDN		
FOR MAILING THIS APPLICATION, SEE INSTRUCTIONS FOR SECTION I			
2. A. Is a fee submitted with this application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
B. If No, select the appropriate box to indicate reason for fee exemption (see 47 C.F.R. Section 1.1114)			
<input type="checkbox"/> Governmental Entity <input type="checkbox"/> Noncommercial educational licensee <input checked="" type="checkbox"/> Other (Please explain): Directional FM Antenna Replacement			

3. 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

If the answer is Yes, 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 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 the application or Section 1.65 information was filed, and the date of filing; and (ii) the disposition of the previously reported 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

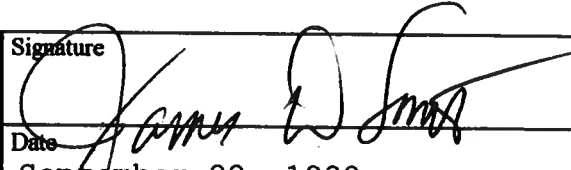
Section I - GENERAL INFORMATION (Page 2)

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 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
6. 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	Signature
James D. Smith	
Title	Date
Senior Vice President	September 22, 1998

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).

SECTION II - TECHNICAL DATA

1. This license application is for a: (check all that apply)

- | | |
|---|--|
| <input type="checkbox"/> Request for program test authority. | <input checked="" type="checkbox"/> Station on automatic program test authority. |
| <input checked="" type="checkbox"/> Commercial station. | <input type="checkbox"/> Noncommercial station. |
| <input checked="" type="checkbox"/> Directional antenna. | <input type="checkbox"/> Non-directional antenna. |
| <input type="checkbox"/> License to cover construction permit for an auxiliary facility. | |
| <input type="checkbox"/> License to utilize former licensed main facility as an auxiliary facility. | |

SPECIAL OPERATING CONDITIONS MAY PROHIBIT AUTOMATIC PROGRAM TEST AUTHORITY.

2. Call Sign: WWDW 3. Frequency or channel: 267 (101.3) Class: C

4. Community of License:

City <u>Sumter</u>	State <u>SC</u>
--------------------	-----------------

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: _____
as modified by: _____
as extended by: _____
as replaced by: _____

(b) ☒ modifies a license, file number: BLH850307LB

6. Is this application being filed pursuant to MM Docket No. 88-375 (Class A Upgrade) or MM Docket 96-58? See Instructions.

☐ Yes ☒ No

Exhibit No. n/a

If Yes, attach a completed Supplement to Form 302-FM to this application.

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

7. Expiration date of construction permit:

Month	Day	Year
-------	-----	------

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: 34° 03' 04" N. Lat. 80° 40' 55" W. Lon.

	Horizontal	Vertical
(b) Effective radiated power:	<u>100</u> kW	<u>82</u> kW
(c) Beam tilt effective radiated power (if applicable):	<u>n/a</u> kW	<u>n/a</u> kW
(d) Radiation center above ground:	<u>341</u> meters	<u>341</u> meters
(e) Radiation center above mean sea level:	<u>471</u> meters	<u>471</u> meters
(f) Antenna height above average terrain:	<u>403</u> meters	<u>403</u> meters
(g) Overall tower height above ground (including antenna, all other appurtenances, and lighting, if any):	<u>349.6</u> meters	

Note: the license, dated 8/6/1985, gives tower ht WITHOUT lighting.

9. Description of facilities as constructed:

(a) Antenna coordinates: 34° 03' 04" N. Lat. 80° 40' 55" W. Lon.

	Horizontal	Vertical
(b) Effective radiated power:	<u>✓ 100</u> kW	<u>100</u> kW
(c) Beam tilt effective radiated power (if applicable):	<u>n/a</u> kW	<u>n/a</u> kW
(d) Radiation center above ground:	<u>✓ 341</u> meters	<u>341</u> meters
(e) Radiation center above mean sea level:	<u>✓ 471</u> meters	<u>471</u> meters
(f) Antenna height above average terrain:	<u>✓ 403</u> meters	<u>403</u> meters
(g) Overall tower height above ground (including antenna, all other appurtenances, and lighting, if any):	<u>349.6</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.
1

Change in vertical plane ERP to match horizontal pursuant to 73.1690(c)(4)
Addressed in Supplement to form 302, item 8.

CONVERSION TO AND FROM METRIC:

METERS = 0.3048 × FEET

FEET = 3.281 × METERS

11. a. Is the antenna be mounted on an antenna structure which has been registered with the Commission?

☒ Yes ☐ No

If Yes, provide the seven digit registration number and proceed to item 12.

1045489

- b. Has the owner of the antenna structure filed an application for registration with the Commission?

☐ Yes ☐ No

If yes, provide the date FCC Form 854 was filed and proceed to item 12.

☐ Yes ☐ No

- c. Applicant certifies that antenna structure meets 6.10 meter (20 feet) exception rule and therefore does not require registration. In other words, the overall height of the entire structure is not more than 6.10 meters (20 feet) above the ground or the antenna does not extend more than 6.10 meters (20 feet) above a man-made structure (structure built for a purpose other than mounting an antenna, i.e., building, water tank, silo, fire tower, etc.).

If yes, proceed to item 12.

☐ Yes ☐ No

- d. Antenna structure is shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and is located in the congested area of a city, town or settlement where it is evident beyond all reasonable doubt that the structure is so shielded that it will not adversely affect safety in air navigation.

If yes, submit as an Exhibit a detailed explanation and/or diagram to support your claim and proceed to item 12.

Exhibit No.

- e. Antenna structure does not meet FAA notification criteria as defined under 47 C.F.R. Section 17.7 and therefore does not require registration.

☐ Yes ☐ No

12. SPECIAL OPERATING CONDITIONS. Attach an Exhibit that demonstrates compliance with the special operating conditions, terms, and obligations described in the construction permit. See Instructions.

Exhibit No.

☒ Does Not Apply

Antenna description:

Make	Model Number	Number of Sections	Power Gain
ERI	LP12CDAHW-SP	12	5.217

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.

2

CONVERSION TO AND FROM METRIC:

METERS = 0.3048 × FEET

FEET = 3.281 × METERS

SECTION II - TECHNICAL DATA (Page 4)

14. Transmission line system description:

(a) Transmission Line(s):

Make	Model Number	Length in Meters	Efficiency
Cablewave	920215	356 meters	76.883 %
		meters	%

IF MORE SPACE IS NEEDED, PLEASE ATTACH EXHIBIT.

Exhibit No.
n/a

(b) Additional losses (Filters, Isocouplers, Multiplexers, etc.) in transmission line system:

Description	Loss in dB	Efficiency
	dB	%
	dB	%

IF MORE SPACE IS NEEDED, PLEASE ATTACH EXHIBIT.

Exhibit No.
n/a(c) Total Efficiency of transmission line system: 76.883 %15. Transmitter power output (in kilowatts): 24.9 kW

SEE INSTRUCTIONS TO CALCULATE TPO.

16. Operating constants:

(a) D.C. plate current in last radio stage (amperes): 8.7 A(b) Applied D.C. voltage in last radio stage (volts): 3.7 V(c) Efficiency of transmitter at operating power (percent): 77.2 %(d) RF transmission line meter reading (percent): 100 %

SEE INSTRUCTIONS TO CHECK OPERATING CONSTANTS.

17. Is the main studio located within the city of license or the predicted 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

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

Street Address or Location Description		
1900 Pineview Road		
City	County	State
Columbia	Richland	SC

CONVERSION TO AND FROM METRIC:

$$\text{METERS} = 0.3048 \times \text{FEET}$$

$$\text{FEET} = 3.281 \times \text{METERS}$$

SECTION II - TECHNICAL DATA (Page 5)

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

(a)	Street Address or Location Description		
	1900 Pineview Road		
	City	County	State
	Columbia	Richland	SC
(b)	Street Address or Location Description		
	City	County	State

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

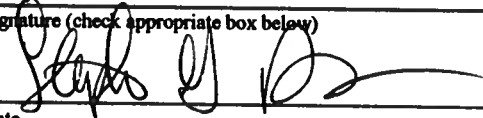
Exhibit No.
n/a

20. Location of Antenna Site:

Street Address or Location Description		
Leesburg/Highway 601 & Screaming Eagle Road		
City	County	State
Columbia	Richland	SC

21. 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)
Stephen G. Davis	
Address (include ZIP Code)	Date
5801 E. 41st St., Suite 715	9/22/98
Tulsa, OK 74135	Telephone No. (include Area Code)
	(918) 664-4581

- | | |
|---|---|
| <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) | |

This supplement is intended for use with the revised procedures adopted in the Report and Order in MM Docket 96-58. You may use this supplement to determine whether the new procedures are applicable to your particular situation. This supplement and any related exhibits must be attached to the Form 302-FM license application.

Purpose of Application (Check applicable boxes and provide the requested information and exhibits):

- ☐ **1. Increase in a Commercial FM station's Effective Radiated Power (ERP).** An FM commercial station (also including those noncommercial educational stations authorized to operate on Channels 221 through 300 (except Class D stations)), may increase ERP via a license application where EITHER (a), (b), or (c) BELOW ARE TRUE. [Noncommercial educational permittees or licensees operating on Channels 200 through 220, or Class D stations operating on any channel, may only increase the authorized maximum ERP after grant of a construction permit application on FCC Form 340 (but see Section 8 below).] An analysis to demonstrate compliance with the Commission's radiofrequency radiation requirements must be included with the Form 302-FM application for license to cover the increased power.

- ☐ (a) (1) The commercial station was authorized pursuant to MM Docket 88-375 or MM Docket 96-58 to increase ERP in a modification of license application in one of the following Public Notices (see 47 CFR Section 73.1690(c)(5)). The ERP increase must not violate the multiple ownership provisions of 47 CFR Section 73.3555. The Form 302-FM application must include an analysis demonstrating compliance with the Commission's radiofrequency radiation requirements.

_____ November 3, 1989 (Reference No. 451), Page No. _____ *** See Note

_____ November 17, 1989 (Reference No. 640), Page No. _____

_____ December 8, 1989 (Reference No. 886), Page No. _____

_____ March 2, 1990 (Reference No. 2009), Page No. _____

_____ February 11, 1991 (Reference No. 11615), Page No. _____

_____ December 8, 1997 (DA97-2568), Page No. _____

*** Note: Certain stations included on the November 3, 1989 Public Notice were deleted from the lists of eligible stations on the November 17, 1989 Public Notice. Applicants referring to the November 3, 1989

- ☐ (2) The installed height of the antenna radiation center is not increased by more than two meters nor decreased by more than four meters from the authorized height for the antenna radiation center.
- ☐ (3) The applicant must demonstrate compliance with the AM protection requirements of 47 CFR Section 73.1692 if the increase in ERP also involves replacement of an antenna on an AM antenna tower.

- ☐ (b) The commercial FM station is fully spaced pursuant to 47 C.F.R. Section 73.207 of the Commission's rules. See 47 CFR Section 73.1690(c)(7). The ERP increase may only be implemented where ALL OF THE FOLLOWING ARE TRUE:

- ☐ (1) A showing must be provided to demonstrate that the FM station complies with the minimum separation requirements of 47 CFR § 73.207. The FM station may not be "grandfathered" under 47 CFR Section 73.213 or authorized under the contour protection rule 47 CFR Section 73.215.
- ☐ (2) If located in or near a radio quiet zone, radio coordination zone, or a Commission monitoring station, written approval has been secured from that radio quiet zone, radio coordination zone, or the Commission's Compliance and Information Bureau in the case of a monitoring station, PRIOR to implementation of the ERP increase. See 47 CFR Sections 73.1030 and 0.121(c). A copy of the written approval must be attached to the Form 302-FM
- ☐ (3) The station does not require international coordination since
- ☐ the transmitter site is not within 320 km of the Canadian or Mexican border, or
- ☐ if the transmitter is site is in a border zone, the station's International Class _____ is equal to or greater than the station's Domestic Class _____.
- ☐ (4) The power increase does not require the consideration of a multiple ownership showing pursuant to 47 CFR Section 73.3555.
- ☐ (5) The vertically polarized ERP will not exceed the horizontally polarized ERP.
- ☐ (6) The installed height of the antenna radiation center is not increased by more than two meters nor decreased by more than four meters from the authorized height for the antenna radiation center.
- ☐ (7) The applicant must demonstrate compliance with the AM protection requirements of 47 CFR Section 73.1692 if the increase in ERP also involves replacement of an antenna on an AM antenna tower.
- ☐ (8) An analysis to demonstrate compliance with the Commission's radiofrequency radiation requirements must be included with the Form 302-FM application for license to cover the increased power.

- ☐ (c) The license application is filed to increase the ERP of an auxiliary facility. Complete Question 7 below.

2. Decrease in a commercial FM station's ERP. An FM station may decrease ERP via a license application where ALL OF THE FOLLOWING ARE TRUE. See 47 CFR Section 73.1690(c)(8).

- ☐ (a) An exhibit must be provided to demonstrate that the station will continue to maintain the 70 dBu contour over the community of license, as required by 47 CFR § 73.315(a). The location of the contour must be predicted using the standard contour prediction method in 47 CFR Section 73.313(b), (c), and (d). Supplemental contour prediction methods may not be used to predict the location of the 70 dBu contour in a license application.
- ☐ (b) An exhibit must be provided to demonstrate that the station will maintain the 70 dBu contour over the main studio location, or that the main studio is located within the community of license, as required by 47 CFR Section 73.1125. The location of the contour must be predicted using the standard contour prediction method in 47 CFR Section 73.313(b), (c), and (d). Supplemental contour prediction methods may not be used to predict the location of the 70 dBu contour in a license application.
- ☐ (c) The station class, as defined by 47 CFR Section 73.211, may not change from the station class authorized for the station.

- ☐ (d) The station's vertically polarized ERP will not exceed the horizontally polarized ERP.
- ☐ (e) The licensee or permittee must certify that the power decrease is not requested or required to establish compliance with the multiple ownership rule, 47 CFR Section 73.3555.
- ☐ (f) The installed height of the antenna radiation center is not increased by more than two meters nor decreased by more than four meters from the authorized height for the antenna radiation center.
- ☐ (h) The reduction in power would not cause an authorized auxiliary facility of the station to violate 47 CFR Section 73.1675. If a violation would occur:
 - ☐ an application must be submitted simultaneously with the license to cover the power reduction to bring the auxiliary facility into compliance with 47 CFR Section 73.1675; or
 - ☐ the auxiliary license is attached for cancellation.

☐ **3. Decrease in a noncommercial educational FM station's ERP.** A decrease in a noncommercial educational station's ERP may be applied for in a license application, provided that ALL OF THE FOLLOWING ARE TRUE. See 47 CFR Section 73.1690(c)(8).

- ☐ (a) An exhibit must be provided to demonstrate that the station continues to provide a 60 dBu contour over at least a portion of the community of license. The location of the contour must be predicted using the standard contour prediction method in 47 CFR Section 73.313(b), (c), and (d). Supplemental contour prediction methods may not be used to predict the location of the 60 dBu contour in a license application.
- ☐ (b) An exhibit must be provided to demonstrate that the station will continue to provide a 70 dBu contour over the main studio location, as required by 47 CFR Section 73.1125, or that the main studio is located within the community of license (see 47 CFR Section 73.1125(a)(3)). The location of the contour must be predicted using the standard contour prediction method in 47 CFR Section 73.313(b), (c), and (d). Supplemental contour prediction methods may not be used to predict the location of the 70 dBu contour in a license application.
- ☐ (c) The license application may not propose to eliminate the authorized horizontally polarized ERP, if a horizontally polarized ERP is currently authorized.
- ☐ (d) The vertically polarized ERP may not exceed the horizontally polarized ERP, unless the noncommercial educational station is located within the separations specified in Table A of 47 CFR Section 73.525 with respect to a Channel 6 television station.
- ☐ (e) The installed height of the antenna radiation center is not increased by more than two meters nor decreased by more than four meters from the authorized height for the antenna radiation center.
- ☐ (f) The station is not presently authorized with separate horizontal and vertical antennas mounted at different heights. Use of separate horizontal and vertical antennas requires a construction permit before implementation or changes.
- ☐ (g) The reduction in power would not cause an authorized auxiliary facility to violate 47 CFR Section 73.1675. If a violation would occur:
 - ☐ an application is submitted simultaneously with this license application to reduce ERP to bring the auxiliary facility into compliance with 47 CFR Section 73.1675; or
 - ☐ the auxiliary license is attached for cancellation.

☒

4. **Replacing an FM Directional Antenna With Another Directional Antenna.** A directional antenna may be replaced with another directional antenna, and the Commission subsequently notified of the change via a license application, provide exhibits are attached to the license application to demonstrate compliance with ALL OF THE FOLLOWING ITEMS. See 47 CFR Section 73.1690(c)(2).
- ☒ (a) The installed height of the antenna radiation center is not increased by more than two meters nor decreased by more than four meters from the authorized height for the antenna.
- ☒ (b) Installed at same height as original antenna.
A measured directional pattern and tabulation on the manufacturer's letterhead showing both the horizontal and vertical radiation components and demonstrating that neither of the measured components exceeds the authorized composite pattern along any azimuth.
- Exhibit 2.
- ☒ (c) If the directional antenna is used for a station authorized under Section 73.215 (commercial FM contour protection), or Section 73.509 (noncommercial educational FM), the license application must demonstrate that the RMS (root mean square) of the measured composite directional pattern is 85% or more of the RMS of the authorized composite pattern. If the measured pattern does not meet this requirement, an attachment may be provided to specify reduced relative field values along multiple azimuths for the authorized composite pattern (as authorized for the previous license) so as to bring the measured and authorized directional patterns into compliance with the 85% RMS requirement. See 47 CFR Section 73.316(c)(9).
- Exhibit 2 (antenna is duplicate of originally licensed antenna).
- ☒ (d) A description from the manufacturer as to the procedures used to measure the directional antenna pattern. The antenna measurements must be performed with the antenna mounted on a tower or tower section, or through use of a scale model, equivalent to that on which the antenna will be permanently mounted, and the tower or tower section must include transmission lines, ladders, conduits, other antennas, and any other installations which may affect the measured directional pattern.
- Exhibit 2.
- ☒ (e) A certification from a licensed surveyor that the antenna has been oriented to the proper azimuth must be provided.
- Exhibit 3.
- ☒ (f) A certification from a qualified engineer who oversaw installation of the directional antenna that the directional antenna was installed pursuant to the manufacturer's instructions must be provided.
- Exhibit 4.
- ☐ (g) The applicant must demonstrate compliance with the AM protection requirements of 47 CFR Section 73.1692 if the installation would occur on an AM antenna structure.
n/a -- NOT on an AM antenna struct.
- ☐ 5. **Deletion of Contour Protection Status Under 47 CFR § 73.215 for a Commercial FM Station.** See 47 CFR § 73.1690(c)(6). A permittee or licensee may apply to delete the contour protection station designation pursuant to 47 CFR Section 73.215 where a showing is provided to demonstrate that the FM station is fully spaced in accordance with the minimum separation requirements of 47 CFR Section 73.207. As specified in the Report and Order in MM Docket 96-58, this license application will be considered on a first come / first served basis with respect to any conflicting minor change or license application, and that a prior filed conflicting application, if granted, may necessitate the dismissal of the license application and the resumption of operations with the contour-protected facilities specified on the current station authorization. Deletion of the contour protection designation will only occur upon grant of the license application.
- ☐ 6. **Change Licensing Status from Commercial FM to Noncommercial Educational FM, or vice versa.** See 47 CFR Section 73.1690(c)(9). A permittee or licensee proposing to change from commercial to noncommercial educational status must attach completed Sections II and IV of FCC Form 340 to the license application. Conversely, a permittee or licensee on Channels 221 to 300 proposing to change from noncommercial educational to commercial may do so in a license application without additional exhibits, provided that the channel is not specially reserved for noncommercial educational use in the Table of Allotments (47 CFR Section 73.202(b)). In either case, the change will become effective upon grant of the license application.
- ☐ 7. **Formerly Licensed FM Main Facilities as Auxiliary Facilities, or Change in ERP of an Authorized FM Auxiliary Facility.** See 47 CFR Section 73.1675. The following information must be provided to obtain authorization to use a formerly licensed main facility as an auxiliary facility, or to change the ERP of an authorized FM auxiliary facility:
- ☐ (a) The License Number of the formerly authorized main facility is _____
(the License No. starts with BLH-, BLED-, BMLH-, BMLLED-)

- ☐ (b) An exhibit must be provided to demonstrate that the location of the auxiliary facility's 1 mV/m (60 dBu) contour lies within the licensed main facility's 1 mV/m (60 dBu) contour. The analysis should use a sufficient number of radials to accurately locate both the main and auxiliary contours. The location of the 1 mV/m (60 dBu) contour must be predicted using the standard contour prediction method in 47 CFR Section 73.313(b), (c), and (d).
- ☐ (c) The installed height of the antenna radiation center is not increased by more than two meters nor decreased by more than four meters from the authorized height for the antenna radiation center.
- ☐ (d) If the application proposes to increase the ERP of the auxiliary facility, the application must provide an analysis to demonstrate compliance with the Commission's radiofrequency radiation requirements.
- ☐ (e) If the auxiliary facility requires the installation of a new antenna on an AM antenna tower, the license application must demonstrate compliance with 47 CFR Section 73.1692.

☒ 8. **Change in the Vertically Polarized ERP for FM Commercial Stations and Certain Noncommercial Educational FM Stations.** See 47 CFR Section 73.1690(c)(4). Those FM stations for which ALL OF THE FOLLOWING APPLY may increase or decrease the vertically polarized ERP in a modification of license application:

- ☐ (a) If the station is a noncommercial educational FM station and the distance from the FM station to any Channel 6 television station exceeds the minimum distance separation specified in Table A of 47 CFR Section 73.525, an increase or decrease in the vertically polarized ERP may be made, not to exceed the authorized horizontally polarized ERP. [If the station is authorized for vertically polarized only operation, a construction permit is required before making the change.]
- ☐ (b) If the noncommercial educational station is within the minimum separations specified in Table A with respect to a Channel 6 television station, the station may file a license application procedure to reduce (but not increase) the vertical ERP from the authorized value, and may also decrease (but not increase) the horizontal ERP, provided that any presently authorized horizontal ERP is not eliminated entirely. An exhibit must be provided to demonstrate that the 60 dBu contour will continue to cover at least a portion of the community of license. The location of the contour must be predicted using the standard contour prediction method in 47 CFR Section 73.313(b), (c), and (d). Supplemental contour prediction methods may not be used to predict the location of the 60 or 70 dBu contour in a license application.
- ☒ (c) If the application proposes to increase the vertically polarized ERP of the presently authorized facility, the application must provide an analysis to demonstrate compliance with the Commission's radiofrequency radiation requirements.
- ☒ (d) The installed height of the antenna radiation center is not increased by more than two meters nor decreased by more than four meters from the authorized height for the antenna radiation center.
- ☐ (e) If the new antenna is mounted on an AM antenna tower, the license application must demonstrate compliance with 47 CFR Section 73.1692.

n/a -- Not mounted on an AM antenna tower.

CERTIFICATIONS FOR SUPPLEMENT TO FCC FORM 302-FM

In addition to the certifications in Section I, FCC Form 302-FM, I certify that the statements and exhibits in this supplement to the application are true, complete, and correct to the best of my knowledge and belief and are made in good faith.

I understand that, pursuant to 47 CFR Section 73.1620, the Commission may require a reduction in the station's operating power or other changes, or the cessation of program test operations, or the filing of a construction permit application (with appropriate filing fee) for failure to comply with the terms of the construction permit or previous license, Commission rule, or to eliminate interference.

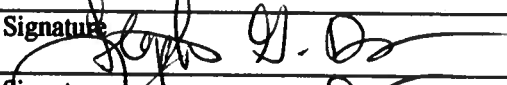
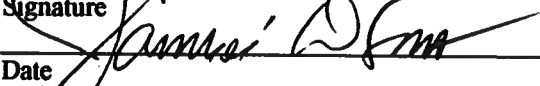
Printed Name of Preparer Stephen G. Davis	Signature 
Printed Name of Applicant (see instructions to Item 6, Section I) James D. Smith	Signature 
Title Senior Vice President	Date 9/14/1998

Exhibit 1

WWDM 302

Application for FM Broadcast Station License

Narrative

This application is to license the replacement of an existing, licensed directional antenna for radio station WWDM, licensed to Sumter, South Carolina, with a new antenna of the same type and directional characteristics, manufactured by the same manufacturer, for maintenance purposes.

The original antenna was listed on the application for construction permit as a Continental brand. However, this antenna was actually manufactured by Electronics Research, Inc. ("ERI"). The replacement antenna was also manufactured by ERI, and was designed as an exact duplicate of the original antenna, within the limits of practicality in manufacturing. The single exception is, pursuant to §73.1690(c)(4), the vertically polarized effective radiated power has been increased up to the authorized horizontally polarized effective radiated power of 100 kW.

The gain of the original antenna was 5.05 (7.04 db). As this is a newer antenna and the state of the art has advanced, the measured composite gain of the complete array for the new antenna is 5.217 (7.174 db). Consequently, the transmitter power output has been adjusted downward slightly to maintain the authorized ERP of 100 kW.

Pursuant to §73.1690(c)(2), the measured composite directional antenna pattern does not exceed the licensed composite directional pattern at any azimuth, and no change in effective radiated power from the licensed 100 kW will occur.

**ELECTRONICS RESEARCH INC.**

7777 Gardner Rd. Chandler, In 47810 Phone (812) 925-6000 Fax (812) 925-4030

**Directional Antenna System
For
WWDM, Sumter, South Carolina**

March 31, 1998

Electronics Research Inc. is providing a custom fabricated antenna system that is specially designed to meet the FCC requirements and the general needs of radio station WWDM.

The antenna is the ERI model LP-12C-DA-HW-SP configuration. The circular polarized system consists of 12 half-wavelength spaced bays using one driven circular polarized radiating element per bay, one horizontal parasitic element per bay and two vertical parasitic elements interleaved between alternate bay pairs. The antenna was tested on a 14" o.d. pole, which is the structure the station plans to use to support the array. All tests were performed on a frequency of 101.3 megahertz which is the center of the FM broadcast channel assigned to WWDM.

Pattern measurements were made on a sixty-acre antenna pattern range which is owned and operated by Electronics Research, Inc. The tests were performed under the direction of Thomas B. Silliman, president of Electronics Research, Inc. Mr. Silliman has the Bachelor of Electrical Engineering and the Master of Electrical Engineering degrees from Cornell University and is a registered professional engineer in the states of Indiana, Maryland and Minnesota.

Directional Antenna System For WWDM, Sumter, South Carolina

(Continued)

DESCRIPTION OF THE TEST PROCEDURE

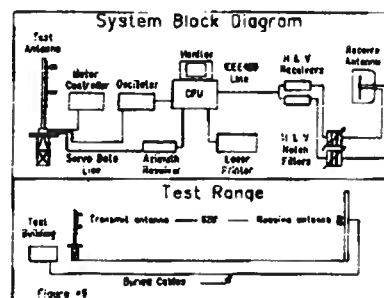
The test antenna consisted of two bay levels of the circular polarized system with the associated horizontal and vertical parasitic elements. The elements and brackets that were used in this test are electrically equivalent to those that will be supplied with the antenna. A section of 3 1/8 inch o.d. rigid coaxial line was used to feed the test antenna, and a section of 3 1/8 inch o.d. rigid outer conductor only was attached above the test antenna. The lines were properly grounded during all tests.

The power distribution and phase relationship to the antenna elements was adjusted in order to achieve the directional radiation pattern for both horizontal and vertical polarization components.

The proof-of-performance was accomplished using a supporting structure of identical dimension and configuration as the 14" o.d. pole, including all braces, ladders, conduits, coaxial lines and other appurtenances that are included in the actual aperture at which the antenna will be installed. The structure was erected vertically on a turntable mounted on a non-metallic building with the antenna centered vertically on the structure, making the center of radiation of the test approximately 30 feet above ground. The turntable is equipped with a motor drive and azimuth indicating mechanism, resolution of this azimuth measuring device is one-tenth of a degree.

The antenna under test was operated in the transmitting mode and fed from a Wavetek Model 3000 signal generator. The frequency of the signal source was set at 101.3 MHz and was constantly monitored by an Anritsu Model ML521B measuring receiver.

A broad-band horizontal and vertical dipole system, located approximately 628 feet from the test antenna, and mounted at the same height above terrain as the center of the antenna under test, was used to receive the emitted test signals.



Directional Antenna System For WWDM, Sumter, South Carolina

(Continued)

receiver. This data was interfaced to a Hewlett-Packard Laser Jet 4P printer by means of a 8386 computer system. Relative field strength was plotted as a function of azimuth.

The measurements were performed by rotating the test antenna in a counter-clockwise direction and plotting the received signal on polar co-ordinated graph paper in a clockwise direction. Both horizontal and vertical components were recorded separately.

CONCLUSIONS

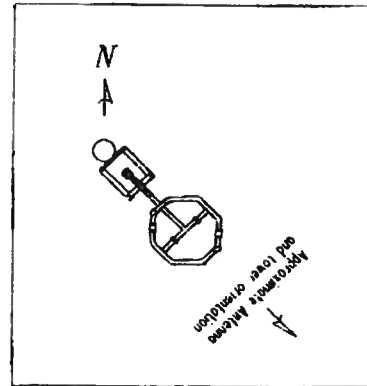
The circular polarized system consists of 12 half-wavelength spaced bays using one driven circular polarized radiating element per bay, one horizontal parasitic element per bay and two vertical parasitic elements interleaved between alternate bay pairs. The power distribution and phase relationship will be fixed when antenna is manufactured. Proper maintenance of the elements should be all that is required to maintain the pattern in adjustment.

The LP-12C-DA-HW-SP array is to be oriented on the 14" o.d. pole at a bearing of North 135 degrees East. Blue prints provided with the antenna will show the proper antenna orientation alignment. The antenna alignment procedure should be directed by a licensed surveyor as prescribed by the FCC.

Figure #1 represents the maximum value of either the horizontal or vertical component at any azimuth. The measured horizontal plane relative field pattern, for both the horizontal and vertical polarization components, is shown on Figure #2 attached. A calculated vertical plane relative field pattern is shown on Figure #3 attached. The power in the maximum will reach 100 kilowatts (20 dBk).

The RMS of the vertically polarized horizontal plane component does not exceed the RMS of the horizontally polarized horizontal plane component.

The clear vertical length of the structure required to support the antenna is 69 feet if the antenna is to be top mounted.



**Directional Antenna System
For
WWDM, Sumter, South Carolina**

(Continued)

The directional antenna should not be mounted on the top of an antenna tower which includes a top-mounted platform larger than the cross-sectional area of the tower in the horizontal plane. No other obstructions other than those that are specified by the blue prints supplied with the antenna are to be mounted at the same tower level as the directional antenna. No obstruction of any type is to be within 75 ft. horizontally of the system. The vertical distance to the nearest obstruction should be a minimum of 10 ft. from the directional antenna.

The calculated maximum power gain of the horizontally polarized component is 5.217 (7.174 dB).

✓ The calculated maximum power gain of the vertically polarized component is 5.217 (7.174 dB).

The calculated input power to the antenna input flange is 19.167 kilowatts (12.826 dBk) to provide a maximum horizontal ERP of 100 kilowatts (20 dBk) and a maximum vertical ERP of 100 kilowatts (20 dBk). The input flange to the antenna is 3 1/8 inch female.

ELECTRONICS RESEARCH, INC.

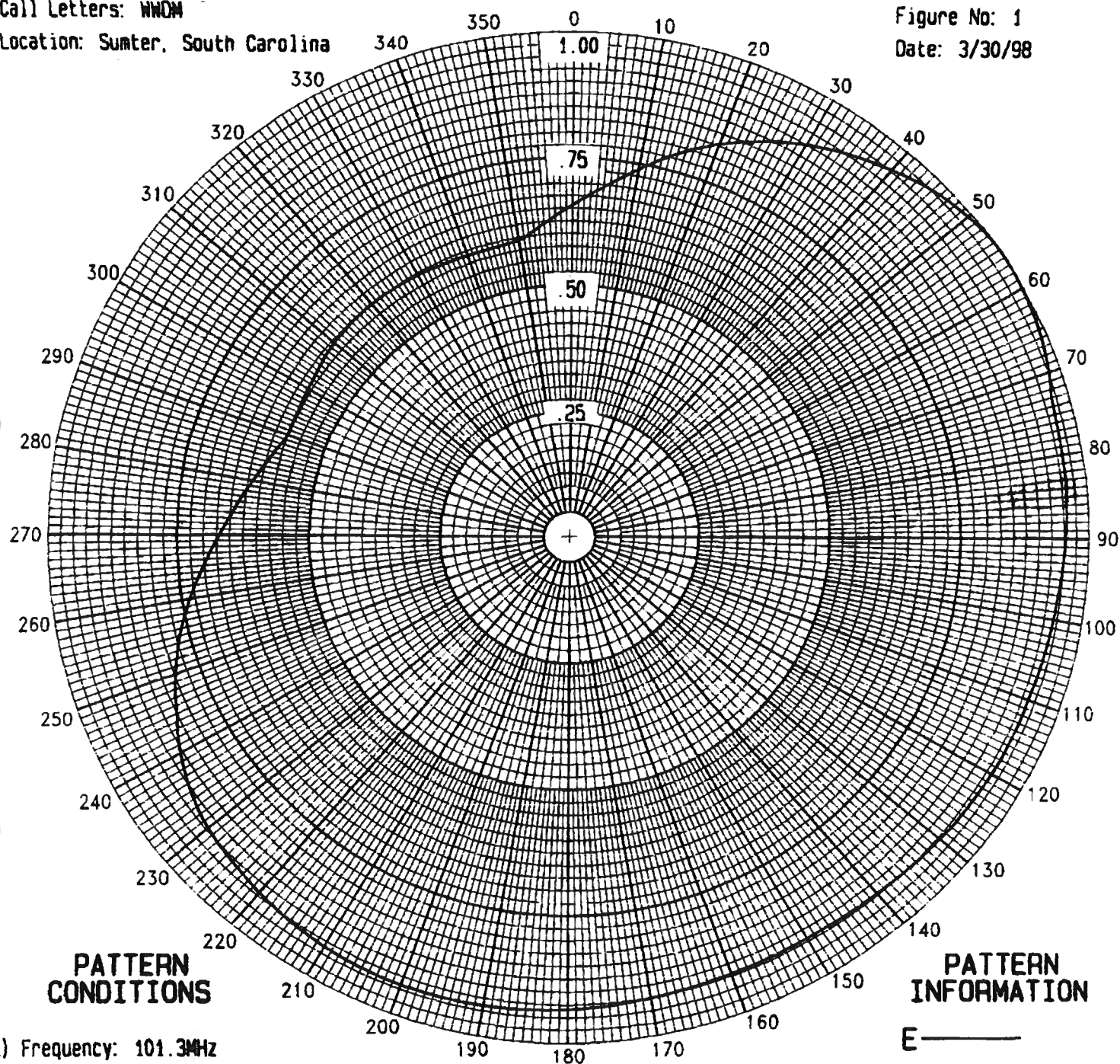
ERI HORIZONTAL PLANE RELATIVE FIELD ENVELOPE PATTERN

Call Letters: WNDM

Location: Sumter, South Carolina

Figure No: 1

Date: 3/30/98





Horizontal Plane Relative Field & dBk List

Radio Station WWDM
List For Figure# 1

Frequency: 101.3MHz
Date 3/30/98

AZIMUTH	RELATIVE FIELD	dBk	POWER kW	POLARIZATION	AZIMUTH	RELATIVE FIELD	dBk	POWER kW	POLARIZATION
0°	0.654	16.317	42.826	HORIZONTAL	180°	0.937	19.432	87.742	HORIZONTAL
5°	0.694	16.822	48.105	HORIZONTAL	185°	0.940	19.461	88.333	HORIZONTAL
10°	0.738	17.355	54.393	HORIZONTAL	190°	0.942	19.482	88.762	HORIZONTAL
15°	0.785	17.892	61.546	HORIZONTAL	195°	0.944	19.495	89.026	HORIZONTAL
20°	0.827	18.355	68.475	HORIZONTAL	200°	0.944	19.500	89.125	HORIZONTAL
25°	0.866	18.747	74.944	HORIZONTAL	205°	0.942	19.484	88.802	HORIZONTAL
30°	0.899	19.076	80.844	HORIZONTAL	210°	0.938	19.442	87.945	HORIZONTAL
35°	0.928	19.349	86.079	HORIZONTAL	215°	0.930	19.373	86.561	HORIZONTAL
40°	0.953	19.580	90.778	VERTICAL	220°	0.920	19.277	84.662	HORIZONTAL
45°	0.977	19.794	95.364	HORIZONTAL	225°	0.908	19.162	82.447	VERTICAL
50°	0.993	19.935	98.513	HORIZONTAL	230°	0.897	19.059	80.518	VERTICAL
55°	1.000	19.997	99.929	HORIZONTAL	235°	0.880	18.889	77.432	VERTICAL
60°	0.999	19.987	99.701	VERTICAL	240°	0.856	18.649	73.259	VERTICAL
65°	0.991	19.922	98.213	VERTICAL	245°	0.826	18.340	68.237	HORIZONTAL
70°	0.977	19.801	95.514	VERTICAL	250°	0.799	18.048	63.791	HORIZONTAL
75°	0.964	19.682	92.930	HORIZONTAL	255°	0.768	17.713	59.056	HORIZONTAL
80°	0.961	19.659	92.447	HORIZONTAL	260°	0.735	17.331	54.084	HORIZONTAL
85°	0.959	19.633	91.888	HORIZONTAL	265°	0.701	16.918	49.186	HORIZONTAL
90°	0.954	19.594	91.079	HORIZONTAL	270°	0.670	16.521	44.886	HORIZONTAL
95°	0.949	19.545	90.044	HORIZONTAL	275°	0.641	16.144	41.148	HORIZONTAL
100°	0.944	19.501	89.142	HORIZONTAL	280°	0.616	15.789	37.923	HORIZONTAL
105°	0.941	19.469	88.494	HORIZONTAL	285°	0.593	15.461	35.166	HORIZONTAL
110°	0.939	19.450	88.096	HORIZONTAL	290°	0.575	15.200	33.113	VERTICAL
115°	0.938	19.442	87.947	HORIZONTAL	295°	0.577	15.222	33.281	VERTICAL
120°	0.937	19.435	87.804	HORIZONTAL	300°	0.581	15.280	33.729	VERTICAL
125°	0.935	19.416	87.422	HORIZONTAL	305°	0.587	15.374	34.465	VERTICAL
130°	0.932	19.385	86.804	HORIZONTAL	310°	0.593	15.467	35.209	VERTICAL
135°	0.927	19.345	86.010	HORIZONTAL	315°	0.597	15.523	35.670	VERTICAL
140°	0.924	19.314	85.397	HORIZONTAL	320°	0.599	15.544	35.844	VERTICAL
145°	0.922	19.295	85.020	HORIZONTAL	325°	0.598	15.531	35.739	VERTICAL
150°	0.921	19.288	84.879	HORIZONTAL	330°	0.595	15.497	35.461	VERTICAL
155°	0.922	19.293	84.976	HORIZONTAL	335°	0.592	15.447	35.053	VERTICAL
160°	0.923	19.306	85.235	HORIZONTAL	340°	0.590	15.413	34.777	VERTICAL
165°	0.926	19.328	85.655	HORIZONTAL	345°	0.589	15.400	34.674	VERTICAL
170°	0.929	19.357	86.240	HORIZONTAL	350°	0.593	15.468	35.221	VERTICAL
175°	0.933	19.395	86.989	HORIZONTAL	355°	0.620	15.848	38.444	HORIZONTAL

CITY OF LICENSE: Sumter, South Carolina

MOUNTING STRUTURE: 14" o.d.pole

ANTENNA TYPE: LP-12C-DA-HW-SP NUMBER OF BAYS:12

ENVELOPE MAXIMUM RELATIVE FIELD=1.0000 AZIMUTH= 56°

ENVELOPE MINIMUM RELATIVE FIELD=0.5754 AZIMUTH=290°

ENVELOPE RMS=.8407

MAXIMUM HORIZONTAL E.R.P.=100.000kW MAXIMUM VERTICAL E.R.P.=100.000kW

TOTAL POWER INPUT= 19.1673kW

MAXIMUM HORIZONTAL POWER GAIN OF THE COMPLETE ARRAY= 5.217(7.174dB)

MAXIMUM VERTICAL POWER GAIN OF THE COMPLETE ARRAY= 5.217(7.174dB)

ANTENNA ORIENTATION: North 135 degrees East

REFERENCE: WWDMV.PAT

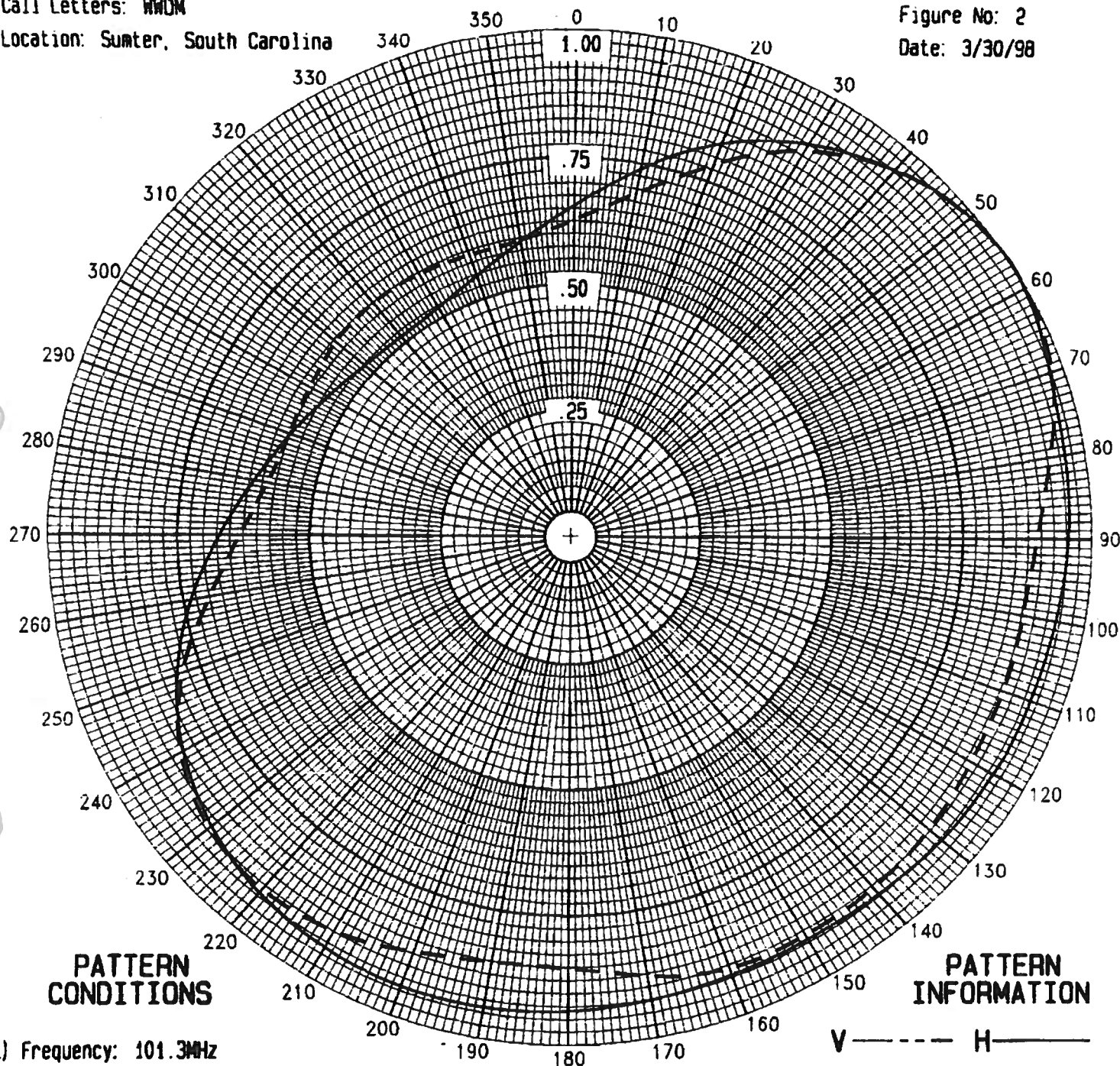
ERI HORIZONTAL PLANE RELATIVE FIELD PATTERN

Call Letters: WNDM

Location: Sumter, South Carolina

Figure No: 2

Date: 3/30/98





Horizontal Plane Relative Field & dBk List

Radio Station WWDM
List For Figure# 2

Frequency: 101.3MHz
Date 3/30/98

AZIMUTH	H POL RELATIVE FIELD	H POL dBk	H POL POWER kW	V POL RELATIVE FIELD	V POL dBk	V POL POWER kW	AZIMUTH	H POL RELATIVE FIELD	H POL dBk	H POL POWER kW	V POL RELATIVE FIELD	V POL dBk	V POL POWER kW
0°	0.654	16.317	42.826	0.626	15.930	39.173	180°	0.937	19.432	87.742	0.855	18.639	73.103
5°	0.694	16.822	48.105	0.654	16.307	42.728	185°	0.940	19.461	88.333	0.851	18.600	72.444
10°	0.738	17.355	54.393	0.689	16.766	47.495	190°	0.942	19.482	88.762	0.854	18.629	72.925
15°	0.785	17.892	61.546	0.732	17.295	53.638	195°	0.944	19.495	89.026	0.861	18.705	74.215
20°	0.827	18.355	68.475	0.783	17.879	61.357	200°	0.944	19.500	89.125	0.874	18.827	76.335
25°	0.866	18.747	74.944	0.837	18.455	70.060	205°	0.942	19.484	88.802	0.889	18.982	79.112
30°	0.899	19.076	80.844	0.883	18.922	78.026	210°	0.938	19.442	87.945	0.902	19.101	81.301
35°	0.928	19.349	86.079	0.922	19.294	84.991	215°	0.930	19.373	86.561	0.909	19.173	82.663
40°	0.952	19.570	90.567	0.953	19.580	90.778	220°	0.920	19.277	84.662	0.912	19.200	83.176
45°	0.977	19.794	95.364	0.976	19.788	95.243	225°	0.907	19.152	82.266	0.908	19.162	82.447
50°	0.993	19.935	98.513	0.991	19.925	98.279	230°	0.891	18.998	79.396	0.897	19.059	80.518
55°	1.000	19.997	99.929	0.999	19.992	99.815	235°	0.872	18.813	76.079	0.880	18.889	77.432
60°	0.997	19.975	99.429	0.999	19.987	99.701	240°	0.851	18.594	72.347	0.856	18.649	73.259
65°	0.987	19.888	97.445	0.991	19.922	98.213	245°	0.826	18.340	68.237	0.825	18.331	68.095
70°	0.973	19.758	94.590	0.977	19.801	95.514	250°	0.799	18.048	63.791	0.788	17.928	62.063
75°	0.964	19.682	92.930	0.957	19.622	91.656	255°	0.768	17.713	59.056	0.744	17.428	55.313
80°	0.961	19.659	92.447	0.932	19.386	86.816	260°	0.735	17.331	54.084	0.700	16.898	48.951
85°	0.959	19.633	91.888	0.909	19.174	82.686	265°	0.701	16.918	49.186	0.662	16.420	43.858
90°	0.954	19.594	91.079	0.893	19.018	79.765	270°	0.670	16.521	44.886	0.632	16.008	39.884
95°	0.949	19.545	90.044	0.883	18.921	77.994	275°	0.641	16.144	41.148	0.607	15.671	36.905
100°	0.944	19.501	89.142	0.879	18.884	77.334	280°	0.616	15.789	37.923	0.590	15.419	34.826
105°	0.941	19.469	88.494	0.880	18.890	77.448	285°	0.593	15.461	35.166	0.579	15.260	33.576
110°	0.939	19.450	88.096	0.882	18.907	77.750	290°	0.573	15.164	32.840	0.575	15.200	33.113
115°	0.938	19.442	87.947	0.885	18.934	78.242	295°	0.556	14.901	30.909	0.577	15.222	33.281
120°	0.937	19.435	87.804	0.888	18.972	78.926	300°	0.542	14.675	29.345	0.581	15.280	33.729
125°	0.935	19.416	87.422	0.893	19.020	79.804	305°	0.530	14.491	28.122	0.587	15.374	34.465
130°	0.932	19.385	86.804	0.899	19.076	80.832	310°	0.522	14.349	27.223	0.593	15.467	35.209
135°	0.927	19.345	86.010	0.904	19.123	81.721	315°	0.516	14.254	26.631	0.597	15.523	35.670
140°	0.924	19.314	85.397	0.908	19.160	82.420	320°	0.513	14.206	26.338	0.599	15.544	35.844
145°	0.922	19.295	85.020	0.911	19.187	82.927	325°	0.514	14.219	26.420	0.598	15.531	35.739
150°	0.921	19.288	84.879	0.912	19.203	83.240	330°	0.520	14.316	27.013	0.595	15.497	35.461
155°	0.922	19.293	84.976	0.913	19.209	83.357	335°	0.530	14.489	28.116	0.592	15.447	35.053
160°	0.923	19.306	85.235	0.909	19.173	82.652	340°	0.546	14.736	29.760	0.590	15.413	34.777
165°	0.926	19.328	85.655	0.899	19.073	80.788	345°	0.566	15.050	31.989	0.589	15.400	34.674
170°	0.929	19.357	86.240	0.882	18.910	77.805	350°	0.590	15.423	34.859	0.593	15.468	35.221
175°	0.933	19.395	86.989	0.865	18.743	74.877	355°	0.620	15.848	38.444	0.606	15.647	36.702

CITY OF LICENSE: Sumter, South Carolina

MOUNTING STRUCTURE: 14" o.d.pole

ANTENNA TYPE: LP-12C-DA-HW-SP NUMBER OF BAYS:12

HORIZONTAL MAXIMUM RELATIVE FIELD=1.0000 AZIMUTH= 56

HORIZONTAL MINIMUM RELATIVE FIELD=0.5129 AZIMUTH=322

VERTICAL MAXIMUM RELATIVE FIELD=1.0000 AZIMUTH= 57

VERTICAL MINIMUM RELATIVE FIELD=0.5754 AZIMUTH=290

HORIZONTAL RMS=.8342 VERTICAL RMS=.8144

MAXIMUM HORIZONTAL E.R.P.=100.000kW MAXIMUM VERTICAL E.R.P.=100.000kW

TOTAL POWER INPUT= 19.1673kW

MAXIMUM HORIZONTAL POWER GAIN OF THE COMPLETE ARRAY= 5.217(7.174dB)

MAXIMUM VERTICAL POWER GAIN OF THE COMPLETE ARRAY= 5.217(7.174dB)

ANTENNA ORIENTATION: North 135 degrees East

REFERENCE: WWDMH.PAT WWDMV.PAT

Exhibit 2

ERI **Vertical Plane Relative Field Pattern**

FIGURE NO: 3

CALL SIGN: WWDM

CITY: Sumter, South Carolina

101.3 MHz

12 BAY LP-12C-DA-HW-SP ANTENNA

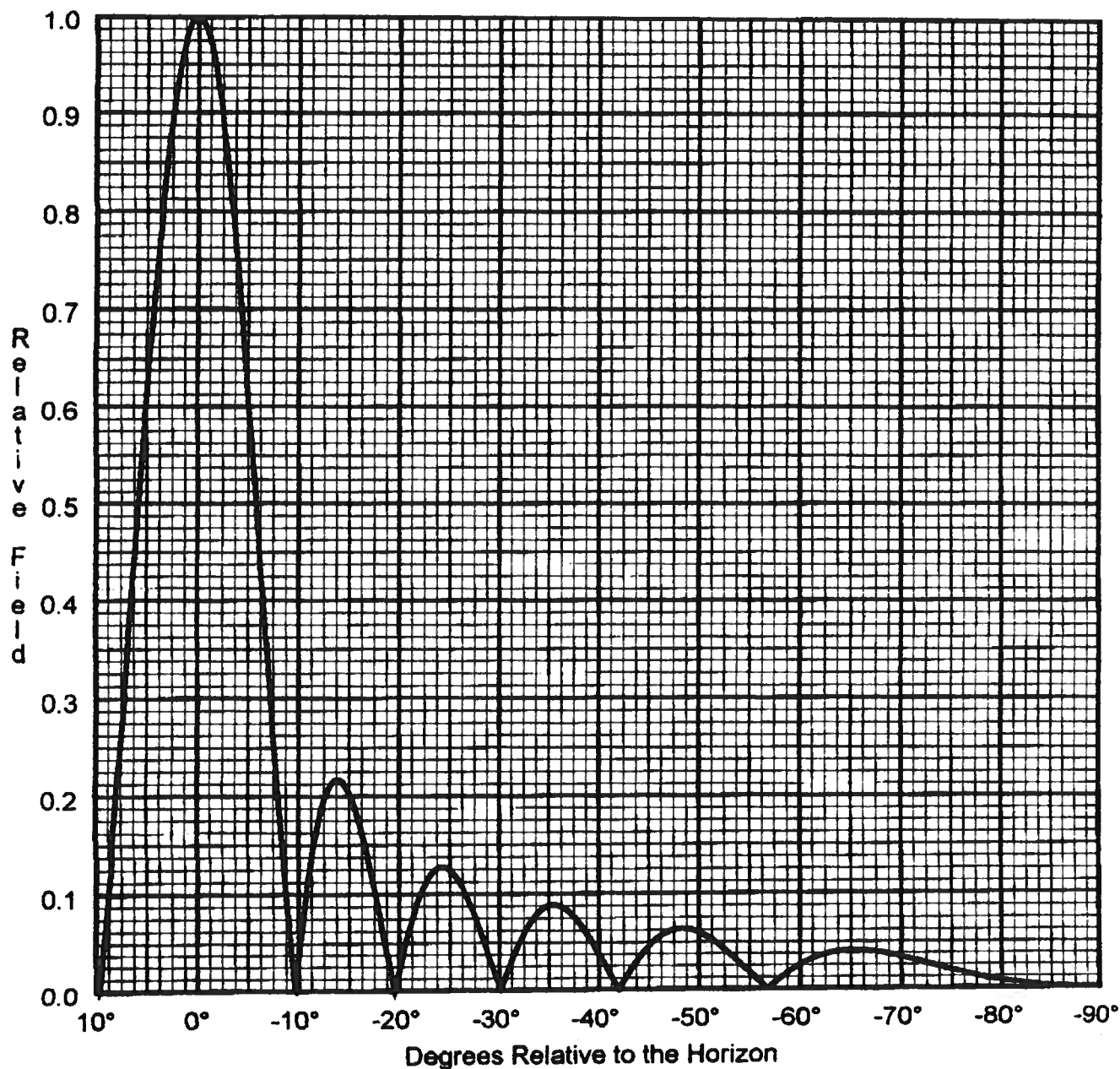
DATE: 3/31/98

H/V POWER RATIO: 1

.5 WAVELENGTH SPACING

0° Beam Tilt

0% First Null Fill



Vertical Gain

MAX : 5.218

H PLANE : 5.218

Horizontal Gain

MAX : 5.218

H PLANE : 5.218

WK DICKSON



Engineers
Planners
Surveyors

Mr. Steve Davis
Clear Channel Radio
5801 E. 41st Street, Suite 715
Tulsa, OK 74135

"I, Mark Wingate hereby certify that I am a qualified, licensed surveyor, and was on site at the WWDM tower during installation of the directional antenna, and supervised the orientation of the antenna, ensuring that it was oriented to the azimuth of 135°.

Mark D. Wingate, R.L.S.
W.K. Dickson & Co., Inc.
South Carolina Registered Land Surveyor No. 13172

Exhibit 3

501 Commerce Drive, NE
Columbia, South Carolina 29223
803.786.4261
FAX 803.786.4263
www.wkdickson.com

Other Offices: Atlanta, GA Hickory, NC
Asheville, NC Raleigh, NC
Charlotte, NC Wilmington, NC

Burt H. SmithP.O. Box 503
Ballentine, South Carolina 29002Phone 803-734-7538
Fax 803-734-7885

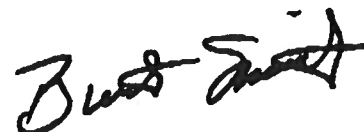
September 15, 1998

**Steve Patterson
1900 PineView Dr.
Columbia, SC 29206**

I, Burt Smith, acting on behalf of Clear Channel Communications, in an engineering capacity, oversaw the installation of a ERI antenna at WWDM-FM's Leesburg Road tower site. It was performed in accordance with the manufacturers instructions, by the employees of the manufacturer.

73.316(b)(8)

Sincerely,

**Exhibit 4**

Clear Channel Radio Licenses, Inc.

License Modification Application

WWDM (FM) Radio Station

September 22, 1998

Exhibit 5

Radio Frequency Radiation Study and Statement

The proposed facilities were evaluated in terms of potential radiofrequency radiation exposure at ground level in accordance with OST Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation."

The proposed WWDM antenna system will be mounted with its center of radiation 341 meters above ground level and will operate with an effective radiated power of 100 kilowatts in both the horizontal and vertical planes. A half-wave spaced 12-section antenna is being utilized. A vertical pattern study for this antenna was conducted by the manufacturer, and is attached as Figure 3 of Exhibit 2. At two meters, the height of an average person, at the base of the tower, this proposal will contribute, worst case, 2.2 microwatts per square centimeter, or .22% of the allowable ANSI limit for controlled exposure, and 1.11% of the allowable limit for uncontrolled exposure. It is therefore believed that regardless of the contribution of other users of the tower, this proposal is in compliance with OST Bulletin Number 65 as required by the Federal Communications Commission.

Further, the applicant will post warning signs in the vicinity of the tower, warning of potential radio frequency hazards at the site. The site itself is restricted from public access. The area at the base of the antenna is enclosed by a fence. The applicant will cooperate with other users of the tower to reduce power of the facility, switch to an Auxiliary antenna, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.