ORIGINAL

LAW OFFICES OF
BOOTH, FRERET & IMLAY
SUITE 150
1920 N STREET, N.W.
WASHINGTON, D.C. 20036

ROBERT M. BOOTH, JR. (1911-1981)
JULIAN P. FRERET
CHRISTOPHER D. IMLAY

TELEPHONE
(202) 296-9100
TELECOPIER
(202) 293-1319

October 10, 1991

RECEIVED
OCT 1 0 1991
Federal Communications Commission
Office of the Secretary
REC'D MASS MED BUR
OCT 1 1 1991
VIDEO SERVICES

Ms. Donna R. Searcy
Secretary
Federal Communications Commission
1919 M Street, N. W., Room 222
Washington, D. C. 20554

In re: Application of Trudy M. Mitchell for construction permit for new UHF commercial television station, Channel 54, Slidell, LA (BPCT-900726KG).

Dear Ms. Searcy:

Trudy M. Mitchell ("Mitchell") has pending an application for authority to construct a new UHF commercial television station to operate on Channel 54 at Slidell, Louisiana, bearing File No. BPCT-900726KG.

The site originally proposed by Mitchell became unavailable (see statement of Lodestar Site Management, Inc. dated July 19, 1991 and filed with the Commission September 12, 1991 confirming Mitchell's loss of site). Accordingly, she filed an amendment (pro se) June 7, 1991, specifying a new site and including new engineering data. Mitchell now supplements and revises some of those data, in accord with the attached new Section V-C of FCC Form 301, which should be substituted where appropriate.

Yours very truly,

Julian P. Freret

Julian P. Freret

JPF:mf

CC J. Baraff, Esq. (w/o enclosure)

RECEIVED

OCT 1 0 1991

Federal Communications Commission
Office of the Secretary

Federal Communications Commission
Washington, D.C.

10-9-91

RE: Application of Trudy M. Mitchell
BPCT - 900726KG

Gentlemen:

Please amend the above captioned application by inclusion of the attached engineering data.

Yours Very Truly,

Trudy M. Mitchell

Trudy M. Mitchell

FCC Orig.

Section V-C - TV BROADCAST ENGINEERING DATA	FOR COMMISSION USE ONLY File No. _____ ASB Referral Date _____ Referred by _____

Name of Applicant: Trudy M. Mitchell

Call letters (if issued):

Purpose of Application (check appropriate box):

- [X] Construct a new (main) facility
- [ ] Construct a new auxiliary facility
- [ ] Modify existing construction permit for main facility
- [ ] Modify existing construction permit for auxiliary facility
- [ ] Modify licensed main facility
- [ ] Modify licensed auxiliary facility

If purpose is to modify, indicate nature of change(s) by checking appropriate box(es), and specify the file number(s) of the authorization(s) affected:

- [ ] Antenna supporting-structure height
- [ ] Effective radiated power
- [ ] Antenna height above average terrain
- [ ] Frequency
- [ ] Antenna location
- [ ] Antenna system
- [ ] Main Studio location
- [ ] Other (Summarize briefly)

File Number(s) _____

1. Allocation:

Channel No.	Offset (check one)	Principal community to be served: City	County	State	Zone (check one)
54	[X] Plus [ ] Minus [ ] Zero	Slidell	St. Tammany Parish	LA	[ ] I [ ] II [X] III

2. Exact location of antenna: Hudson & Algiers Aves, Slidell, [redacted] Parish, LA
(a) Specify address, town or city, county and state. If no address, specify distance and bearing to the nearest landmark.

(b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude and West Longitude will be presumed.

Latitude	30°	15'	00"	Longitude	89°	45'	46"

8. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? [X] Yes [ ] No

If Yes, give call letter(s) or file number(s) or both. WSLA(AM) Day Site

If proposal involves a change in height of an existing structure, specify existing height above ground level, includin antenna, all other appurtenances, and lighting, if any.

4. Does the application propose to correct previous site coordinates? ☐ Yes ☒ No
If Yes, list old coordinates.

Latitude ° ' "	Longitude ° ' "

5. Has the FAA been notified of the proposed construction? ☐ Yes ☒ No
If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available. No change in height Exhibit No.

Date _____ Office where filed _____

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the nearest runway. None within specified radius

	Landing Area	Distance (km)	Bearing (degrees True)
(a)			
(b)			

7. (a) Elevation: *(to the nearest meter)*

(1) of site above mean sea level; 3 meters

(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and 125 meters

(3) of the top of supporting structure above mean sea level [(a)(1) + (a)(2)]. 128 meters

(b) Height of antenna radiation center: *(to the nearest meter)*

(1) above ground; 117 meters

(2) above mean sea level [(a)(1) + (b)(1)]; and 120 meters

(3) above average terrain. 118 meters

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(b)(3). If mounted on an AM directional-array element, specify heights and orientations of all array towers, as well as location of TV radiator. Exhibit No. E-3

9. Maximum visual effective radiated power 500 kW

10. Antenna:

(a) Manufacturer Dielectric Prod. (b) Model No. TLP24A

(c) Is a directional antenna proposed? ☐ Yes ☒ No

If Yes, specify major lobe azimuth(s) _____ degrees True and attach as an Exhibit all data specified in 47 C.F.R. Section 73.685. Exhibit No.

(d) Is electrical beam tilt proposed? ☒ Yes ☐ No

If Yes, specify -0.5 degrees electrical beam tilt and attach as an Exhibit all data specified in 47 C.F.R. Section 73.685. Exhibit No. E-4A

(e) Is mechanical beam tilt proposed? ☐ Yes ☒ No

If Yes, specify _____ degrees mechanical beam tilt toward azimuth _____ degrees True and attach as an Exhibit all data specified in 47 C.F.R. Section 73.685. Exhibit No.

(f) The proposed antenna is: *(check only one box)*

☒ horizontally polarized ☐ circularly polarized ☐ elliptically polarized

11. Will the proposed facility satisfy the requirements of 47 C.F.R. Sections 73.685(a) and (b)? ☒ Yes ☐ No

If No, attach as an Exhibit justification therefor, including amounts and percentages of population and area that will not receive City Grade service. Exhibit No.

12. Will the main studio be located within the station's predicted principal community contour as defined by 47 C.F.R. Section 73.685(a)? ☒ Yes ☐ No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125. Exhibit No.

13. Does the proposed facility satisfy the requirement of 47 C.F.R. Section 73.610? ☒ Yes ☐ No

If No, attach as an Exhibit justification therefor, including a summary of any previously granted waiver(s). Exhibit No.

14. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters; or (b) in the general vicinity, any nonbroadcast *(except citizens band or amateur)* radio stations or any established commercial or government receiving stations? ☒ Yes ☐ No

If Yes, attach as an Exhibit a description of the expected, undesired effects of operations and remedial steps to be pursued, if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference *(including that caused by intermodulation)* to facilities in existence or authorized prior to grant of this application. *(See 47 C.F.R. Sections 73.685(d) and (g).)* Exhibit No. A

15. Attach as an Exhibit a topographic map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the provisions of 47 C.F.R. Section 73.684(g). The map must further display clearly and legibly the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers. Exhibit No. E-5

16. Attach as an Exhibit a map *(Sectional Aeronautical Chart or equivalent)* which shows clearly, legibly and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. E-1

(a) The proposed transmitter location, and the radials along which profile graphs have been prepared;
(b) The City Grade, Grade A and Grade B predicted contours; and
(c) The legal boundaries of the principal community to be served.

17. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population *(latest census)* within the predicted Grade B contour.

Area 5,685 sq. km. Population 1,028,805

18. For an application involving an auxiliary facility only, attach as an Exhibit a map *(Sectional Aeronautical Chart or equivalent)* that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. DNA

(a) The proposed auxiliary Grade B contour; and
(b) The Grade B contour of the licensed main facility for which the applied-for facility will be the auxiliary.

(Main facility license file number _____)

19. Terrain and Coverage Data *(To be calculated in accordance with 47 C.F.R. Section 73.684.)*

Source of terrain data: *(check only one box below)*

[x] Linearly interpolated 30-second database (Source: NGDC TPG-0050)

[ ] 7.5 minute topographic map

[ ] Other *(briefly summarize)*

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 Km (meters)	Predicted Distances		
		To the City Grade Contour (kilometers)	To the Grade A Contour (kilometers)	To the Grade B Contour (kilometers)
*				
0	114	28.6	37.1	51.1
45	116	28.8	37.3	51.3
90	120	29.2	37.7	51.7
135	120	29.2	37.7	51.7
180	120	29.2	37.7	51.7
225	120	29.2	37.7	51.7
270	120	29.2	37.7	51.7
315	115	28.7	37.3	51.3

*Radial through principal community, if not one of the major radials. This radial should NOT be included in calculation of HAAT.

20. Environmental Statement (See 47 C.F.R. Section 1.1301 et seq.)

Would a Commission grant of this application come within 47 C.F.R. Section 1.1307, such that it may have a significant environmental impact? ☐ Yes ☒ No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by 47 C.F.R. Section 1.1311. Exhibit No.

If No, explain briefly why not.

This application meets the requirements of OST Bulletin No. 65 and is categorically excluded from environmental processing pursuant to Section 1.1306 of the Commission's Rules; specifically, because it does not (1) involve a site location specified under Section 1.1307(a)(1)-(5); (2) involve high intensity lighting under Section 1.1307(a)(6); or, (3) result in human exposure to radio frequency radiation in excess of the applicable safety standards specified in Section 1.1307(b) of the Commission's Rules.

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined the foregoing and found it to be accurate and true to the best of my knowledge and belief.

Name (Typed or Printed) Virgil M. Royer E. Harold Munn, Jr. & Associates, Inc.	Relationship to Applicant (e.g., Consulting Engineer) Technical Consultant
Signature Virgil M. Royer	Address (Include ZIP Code) P.O. Box 220 Coldwater, MI 49036
Date October 9, 1991	Telephone No. (Include Area Code) (517) 278-7339

SECTION VI – EQUAL EMPLOYMENT OPPORTUNITY PROGRAM

1. Does the applicant propose to employ five or more full-time employees? ☐ Yes ☒ No

If Yes, the applicant must include an EEO program called for in the separate Broadcast Equal Employment Opportunity Program Report (FCC 396-A).

SECTION VII – CERTIFICATIONS

1. Has or will the applicant comply with the public notice requirement of 47 C.F.R. Section 73.3580? ☒ Yes ☐ No

2. Has the applicant reasonable assurance, in good faith, that the site or structure proposed in Section V of this form, as the location of its transmitting antenna, will be available to the applicant for the applicant's intended purpose? ☒ Yes ☐ No

If No, attach as an Exhibit, a full explantion. Exhibit No.

3. If reasonable assurance is not based on applicant's ownership of the proposed site or structure, applicant certifies that it has obtained such reasonable assurance by contacting the owner or person possessing control of the site or structure.

Name of Person Contacted: Robert R. Faucheux

Telephone No. *(include area code)*: (504) 641 - 1560

Person contacted: *(check one box below)*

☐ Owner ☐ Owner's Agent ☒ Other *(specify)* President & CEO North Lake Communications, Inc (WSLA-AM)

The APPLICANT hereby waives any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an 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 exhibits are a material part hereof and incorporated herein.

The APPLICANT represents that this application is not filed for the purpose of impeding, obstructing, or delaying determination on any other application with which it may be in conflict.

In accordance with 47 C.F.R. Section 1.65, the APPLICANT has a continuing obligation to advise the Commission, through amendments, of any substantial and significant changes in information furnished.

ENGINEERING REPORT

NEW UHF TELEVISION STATION

CHANNEL 54+

Slidell, Louisiana

October 1991

PREPARED BY:

E. HAROLD MUNN, JR. &
ASSOCIATES, INC.

ONE HUNDRED AIRPORT ROAD

COLDWATER, MICHIGAN 49036

(517) 278-7339

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7. Exhibit E-4 - Proposed Operation

8. Exhibit E-4A - Antenna Vertical Pattern Plot

9. Exhibit E-5 - Portion of Topographic Map Showing Site

10. Exhibit E-5A - Portion of Aero Chart Showing Site

11. Exhibit E-6 - Tabulation of Population and Area Served

CERTIFICATION OF CONSULTANT

The firm of E. Harold Munn, Jr. & Associates, Inc., Broadcast Engineering Consultants, with offices at 100 Airport Drive, Coldwater, Michigan, has been retained for the purpose of preparing the technical data forming this report.

The report has been prepared by properly trained electronics specialists under the direction of the undersigned whose qualifications are a matter of record before the Federal Communications Commission.

I declare under penalty of perjury that the contents of this report are true and accurate to the best of my knowledge and belief.

E. HAROLD MUNN, JR. & ASSOCIATES, INC.

October 9, 1991 By Virgil M. Royer

E. Harold Munn, Jr., President
Virgil M. Royer, Staff Engineer

100 Airport Drive, Box 220
Coldwater, Michigan 49036

(517) 278-7339

DISCUSSION

This firm was retained to prepare the required engineering report in support of a modification to a pending application for a new UHF television broadcast station. That application is BPCT-900726KG.

The pending application requests operation on Channel 54+, to serve the area of Slidell, Louisiana. The requested channel is listed for use at Slidell.

The technical data supplied in this report supplies the information for Section V-C of FCC Form 301, and replaces the data currently on file.

The transmitter site proposed in this application meets the spacing requirements of 73.610 concerning UHF television facilities.

The proposed service contours have been calculated, and are tabulated in this section, and the data is plotted as Exhibit E-1 of this report. A tabulation of the spacings required by 73.610 is also part of this section.

The television antenna is proposed to be side-mounted near the top of an existing tower, with no increase in the overall height of the structure. This tower is the daytime tower of AM station WSLA, 1560 kHz. WSLA is licensed to Slidell, Louisiana, and operates with a day power of 1.0 kW, using a non-directional antenna. A separate night directional antenna system is employed.

It is the understanding of this firm that the day tower is de-tuned from the night array, and the installation of the TV antenna will not affect the de-tuning. Therefore, it is believed that there will be no adverse effect on the operation of the WSLA night antenna system.

Following the installation of the TV antenna and transmission line on the WSLA day tower, the antenna resistance will be measured, and Form 302 filed to cover any change in the WSLA antenna resistance.

DISCUSSION

Predicted Signal Contours:

30 15 00 - BPCT-900726KG
89 45 46 - SLIDELL, LA

ERP = 500 kW, 26.99 dBk UHF Tables

Radial	HAAT	kW	dBk	Field	80 dBu.5	74 dBu.5	64 dBu.5
0 Degs.	113.9M	500.000	26.990	1.000	28.6	37.1	51.1
45 Degs.	115.8M	500.000	26.990	1.000	28.8	37.3	51.3
90 Degs.	120.0M	500.000	26.990	1.000	29.2	37.7	51.7
135 Degs.	120.0M	500.000	26.990	1.000	29.2	37.7	51.7
180 Degs.	120.0M	500.000	26.990	1.000	29.2	37.7	51.7
225 Degs.	120.0M	500.000	26.990	1.000	29.2	37.7	51.7
270 Degs.	120.0M	500.000	26.990	1.000	29.2	37.7	51.7
315 Degs.	115.4M	500.000	26.990	1.000	28.7	37.3	51.3

Ave. HAAT= 118.1M, Ant. COR= 120.0M AMSL

DISCUSSION

10-08-1991 E.H. Munn Jr. & Assoc. 517 278-7339

CH# 54+ (Primary)
SLIDELL LA VERIFICATION OF SPACINGS
INTERFERENCE CHECKS WITH NEW SLIDELL AT N. LAT. 30 15 0 W. LNG. 89 45 46
ZONE = 3
PWR = 500 K.W. H.A.A.T = 118 M

CH# CITY	CALL	ZONE	TYPE STATE	REQUIRED LICENSEE	CLEAR	BEARING (---	DISTANCE	LAT. LNG.	PWR(KW) MAX HAAT	INT. FILE #	PRO.
47Z HATTIESBURG	AL888	3	EAL MS	A 95.7	32.0	20.7 / 200.7	127.69 km / 79.34 Mi	31 19 40 / 89 17 32	5000.00 / 600.0M	---	106.64
49Z NEW ORLEANS	WCCL-C	3	CCPMDYV LA	31.4 CRESCENT CITY COMMUNICATIO	13.1	214.6 / 34.6	44.48 km / 27.64 Mi	29 55 11 / 90 1 29	5000.00 / 271.0M	--- BMPCT880105KH	79.63
LIC RESCINDED 9-4-90							DA) DIE ODD880105 @		0	HAMSL = 271 M	
54+ SLIDELL	AP998	3	CAP NV LA	329.0 -328.8 TRUDY M. MITCHELL		0.0 / 180.0	0.25 km / 0.16 Mi	30 15 8 / 89 45 46	501.00 / -15.0M	--- BPCT900726KG HAMSL = 121 M	34.92*
Ref F(50-10) 64 dBu= 51.56 km; AP998 F(50-50) 64 dBu= 0 km											
54+ SLIDELL	AP999	3	CAP YV LA	329.0 -325.1 UNICORN-SLIDELL LPTV		311.0 / 131.0	3.90 km / 2.42 Mi	30 16 23 / 89 47 36	14.10 / 153.0M	--- BPCT900518KO HAMSL = 156 M	32.90*
Ref F(50-10) 64 dBu= 51.56 km; AP999 F(50-50) 64 dBu= 0 km											
54+ SLIDELL	AL997	3	CAL LA	A 329.0	-325.5	322.3 / 142.3	3.50 km / 2.17 Mi	30 16 30 / 89 47 6	5000.00 / 600.0M	---	106.64*
EFFECTIVE 7-23-87.											
Ref F(50-10) 64 dBu= 51.56 km; AL997 F(50-50) 64 dBu= 0 km											
54+ COVINGTON	AD909	3	CAD LA	R 329.0 NORTH SHORE TELEVISION	-288.0	307.5 / 127.5	40.99 km / 25.47 Mi	30 28 31 / 90 6 3	5000.00 / 600.0M	---	106.64*
ALT. TO SLIDELL, LA.											
Ref F(50-10) 64 dBu= 51.56 km; AD909 F(50-50) 64 dBu= 0 km											
62+ HAMMOND	AL915	3	CAL LA	NA 31.4	41.3	292.6 / 112.6	72.74 km / 45.20 Mi	30 30 6 / 90 27 42	5000.00 / 600.0M	---	106.64

RADIATION PROTECTION FOR HUMANS PER OST BULLETIN NO.65

The Federal Communications Commission, as of January 1, 1986, has set forth guidelines for RF radiation protection as issued by the American National Standards Institute (ANSI). The following steps will be taken by the licensee of this facility to insure proper protection from potentially high RF energy levels to station personnel and the public in general.

The radiation center of the television antenna will be located at a height above ground sufficient to provide full compliance with the FCC guidelines concerning human exposure to radiofrequency radiation to observers on the ground.

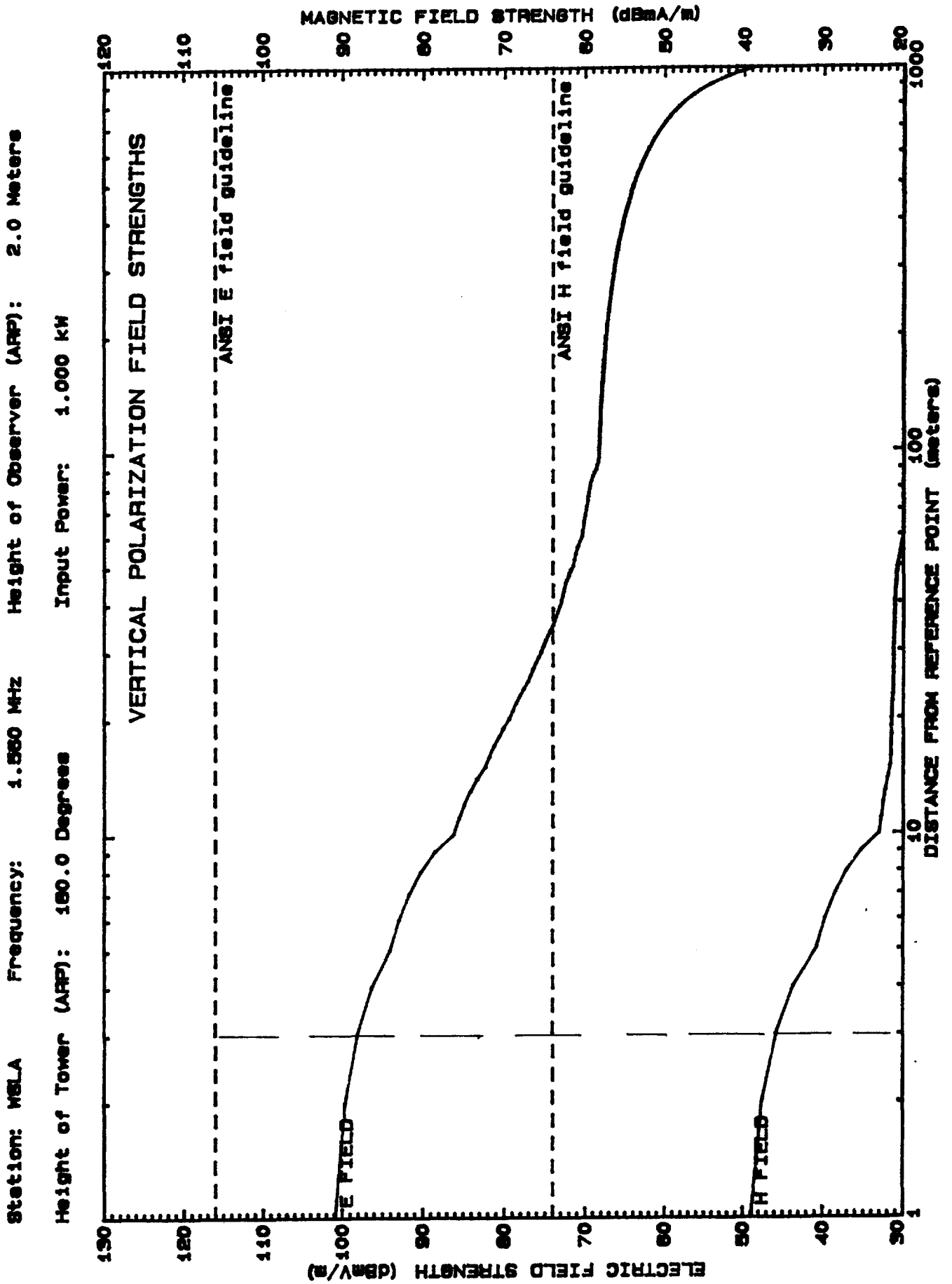
The tower is enclosed by a locked fence. The fence will be marked with appropriate signs, warning of the potential of exposure to radiofrequency radiation. The fence is at a distance of a minimum of three(3) meters from the tower base.

In the event repairs or maintenance would be required on the tower structure or the antenna which could result in potential exposure to fields in excess of the ANSI standards, the operating power of the station will be reduced, or the facility shut down for such time as may be required for the repairs and/or maintenance to be completed.

The applicant will comply with all provisions of the Rules concerning the protection of humans from exposure to radiofrequency radiation.

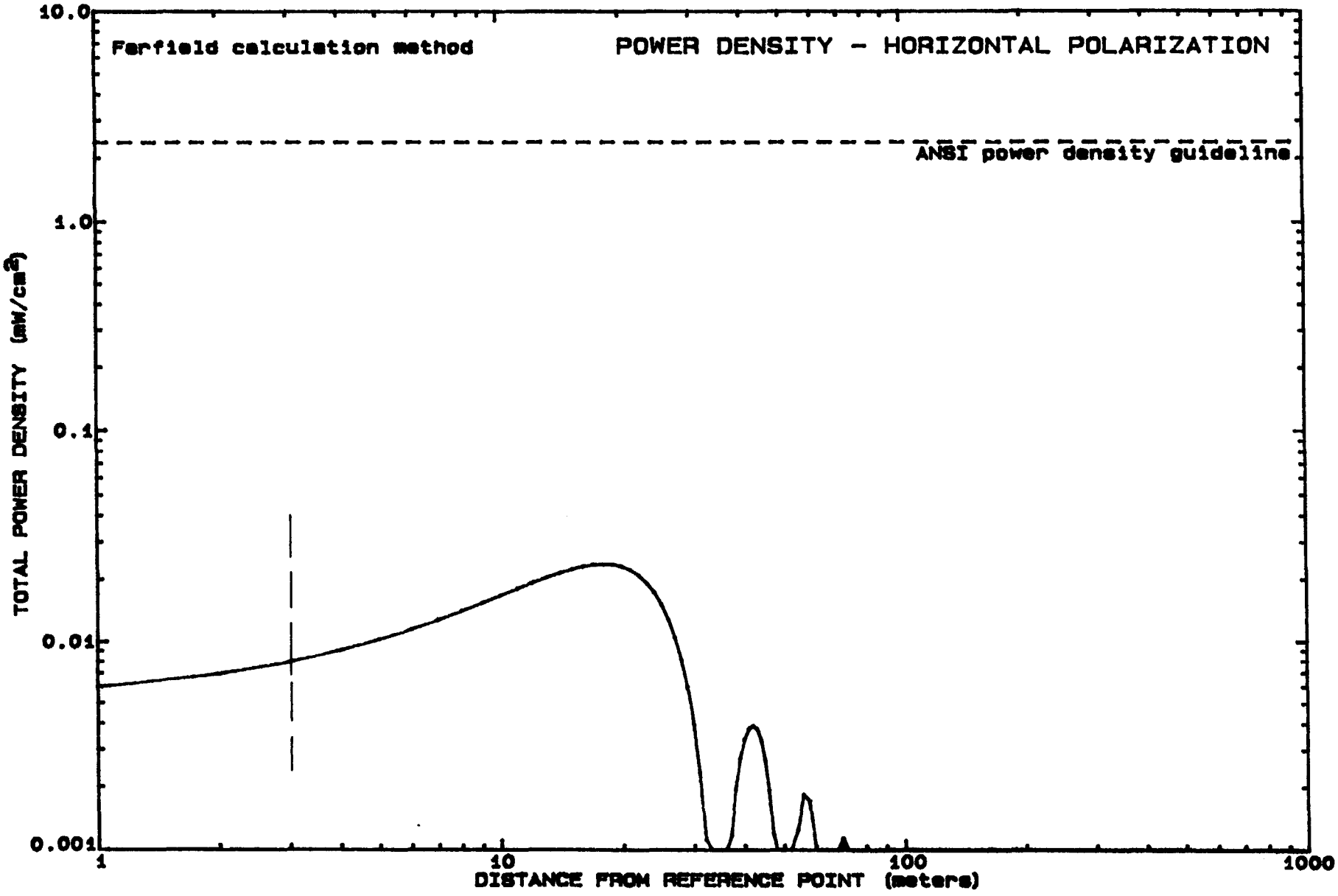
To verify compliance, the individual station fields were calculated and the data plotted as described and shown in this report. In accordance with Sec. 4.1 of Appendix A of OST Bulletin No.65, the individual limit fractions have been determined, and the results added. The sum of the individual limits does not exceed unity, therefore the facilities proposed are in compliance with the Rules of the Commission.

STATION	FIELD	DEC.FRACTION
WSLA(AM)	112.2 V/m	0.177
Ch.54(TV)	0.022 mW/cm²	0.009
		0.126


Station: WSLA
Frequency: 1.550 MHz
Height of Observer (ARP): 2.0 Meters
Height of Tower (ARP): 180.0 Degrees
Input Power: 1.000 kW
VERTICAL POLARIZATION FIELD STRENGTHS
ANSI E field guideline
ANSI H field guideline
E FIELD
H FIELD
MAGNETIC FIELD STRENGTH (dBmA/m)
ELECTRIC FIELD STRENGTH (dBmV/m)
DISTANCE FROM REFERENCE POINT (meters)
120
110
100
90
80
70
60
50
40
30
20
130
1
10
100
1000

Station: NEWTV Frequency: 711.250 MHz Height of Observer (ARP): 2.0 Meters

	No. of Elements	Element Type	Height of Center (ARP)	Power (ERPd)
Horizontal Polarization:	24	UHF ELEMENT	117.0 m	500.000 kW



METHODOLOGY FOR AM RADIATION STUDY

The EPA has developed a means for determination of fields near AM broadcasting towers. This utilizes a version of the Numerical Electromagnetic Code (NEC) to calculate the magnitude of the fields and the wave impedance for a model of a typical uniform cross-section, guyed AM transmitting tower. This has been done for a number of different tower heights and frequencies extending across the AM band. The FCC reduced this data to a series of three (3) graphs in its OST Bulletin No. 65, entitled "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation," issued by the Agency in October, 1985. These graphs, Figures 1, 2 and 3, Appendix D, show the magnitude of the E and H fields within 100 meters (328 feet) of AM towers of three different heights when radiating 1 kW power.

The computer program utilized in the preparation of this report uses the data from these three figures as the basis for its AM field calculations. For tower heights other than those shown in the three figures, linear interpolation between graphs has been used. For tower heights of less than 0.1 wavelength (rarely encountered), values for 0.1 wavelength are utilized. For tower heights greater than 0.5 wavelength, values for 0.5 wavelength are utilized. To adjust for power levels other than 1 kW, fields are increased or decreased by the square root of the power in kW. Where distances greater than 100 meters are involved, the data in the three figures has been extrapolated to 1000 meters, using inverse distance field attenuation. For short distances, where the E and H field curves were not drawn in the OST bulletin, the curves have been manually extrapolated back to the 5 meter and 1 meter points to establish field magnitudes at those distances.

The AM radiator is vertical, hence the corresponding field is vertically polarized. The computer produces results in the vertical polarization, and considers the horizontal polarization to be zero.

References:

1. P. C. Gailey & R. A. Tell. "An Engineering Assessment of the Potential Impact of Federal Radiation Protection Guidance on the AM, FM and TV Broadcast Services," U. S. Environmental Protection Agency, April, 1985.

2. Federal Communications Commission, OST Bulletin No. 65, "Evaluating Compliance with FCC-Specified Guidelines for Evaluating Human Exposure to Radiofrequency Radiation," Robert F. Cleveland, October 1985.

3. Kraus, J. D. "Antennas," McGraw-Edison Book Co., NYC, 1950.

METHODOLOGY FOR TV RADIATION STUDY

The EPA has developed a computer model which serves as a general means of estimating the power densities in the vicinity of typical TV broadcast stations. As is typical of such models, this frequently results in a "worst case" type of determination, as contrasted with lesser amounts of radiation which may actually be determined to exist by taking of field strength measurements. The EPA model considers the following variable factors:

(1) Effective radiated power
(2) Radiation center height above ground
(3) Polarization of the transmitted signal
(4) Type of antenna (generic)
(5) Number of sections (elements or bays) in the array

This particular model is discussed by Gailey and Tell in EPA Report No. 520/6-85-011, April, 1985.

This model makes use of the element and array pattern product and takes into account ground reflections. It is considered to be a reasonable approach for determining the upper bounds of field intensity near transmitting towers on which TV facilities are located.

Calculations are normally made at 2 meters above the ground. Total ERP is used--adding of the vertical and horizontal components. The FCC's OST Report No. 65 provides tables listing the estimates of antenna heights required for compliance with "worst case" situations. (See Table 1-4) Reasonable predictions may be made from use of those data. More specific calculations are made by computer, extrapolating the basic data, and providing a printout graphical presentation of the data.

In the case of joint use of a site by TV and AM stations, the fractional contributions are summed. If the sum of all such fractional contributions is less than unity (1.0), it is concluded that there is no problem of exceeding the ANSI guidelines.

References:

1. P. C. Gailey & R. A. Tell. "An Engineering Assessment of the Potential Impact of Federal Radiation Protection Guidance on the AM, FM and TV Broadcast Services," U. S. Environmental Protection Agency, April, 1985.

2. Federal Communications Commission, OST Bulletin No. 65, "Evaluating Compliance with FCC-Specified Guidelines for Evaluating Human Exposure to Radiofrequency Radiation," by Robert F. Cleveland, October, 1985.

3. Kraus, J. D. "Antennas," McGraw-Edison Book Co., NYC, 1950

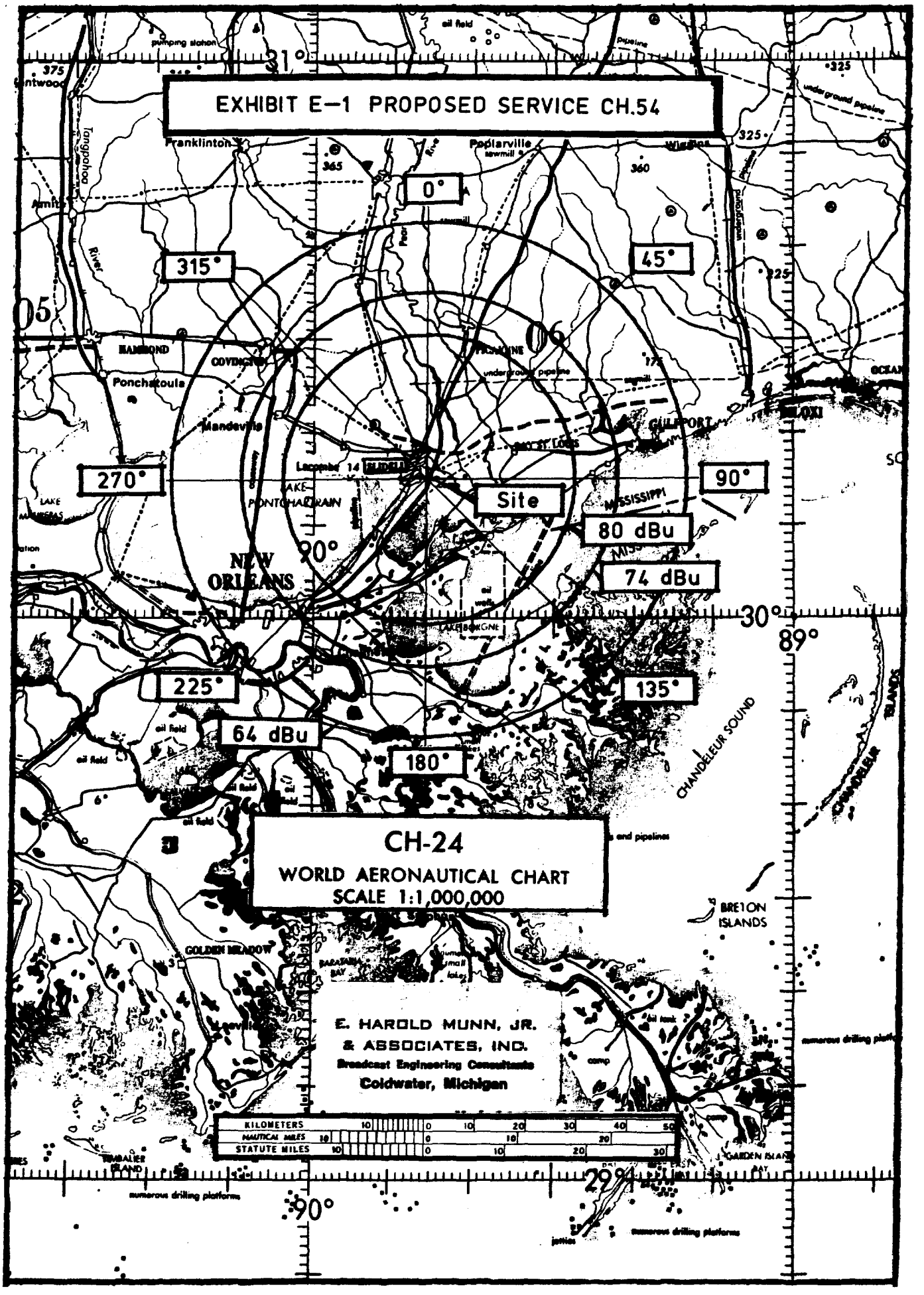


EXHIBIT E-1 PROPOSED SERVICE CH.54
0°
45°
90°
135°
180°
225°
270°
315°
Site
80 dBu
74 dBu
64 dBu
NEW ORLEANS
Franklinton
Poplarville
Ponchatoula
Mandeville
Covington
Hammond
Gulfport
Biloxi
Lacombe
Slidell
LAKE PONTCHARTRAIN
MISSISSIPPI
CHANDELEUR SOUND
BRETON ISLANDS
GOLDEN MEADOW
CH-24
WORLD AERONAUTICAL CHART
SCALE 1:1,000,000
E. HAROLD MUNN, JR.
& ASSOCIATES, INC.
Broadcast Engineering Consultants
Coldwater, Michigan
KILOMETERS
NAUTICAL MILES
STATUTE MILES

EXHIBIT E-2

ANALYSIS OF TOPOGRAPHIC DATA EMPLOYED

The topographic data employed in this application is based on the National Geophysical Center thirty second point topography data base (TPG-0050).

The averages calculated include 130 points between 3 and 16 km.

The transmitter site elevation was determined by means of 7.5' series topographic mapping. The site coordinates were taken from FCC and FAA records for the existing tower.

A portion of that map is included in this report as Exhibit E-5.

A detailed topographic analysis using 7.5' topographic maps will be supplied to the Commission if requested.

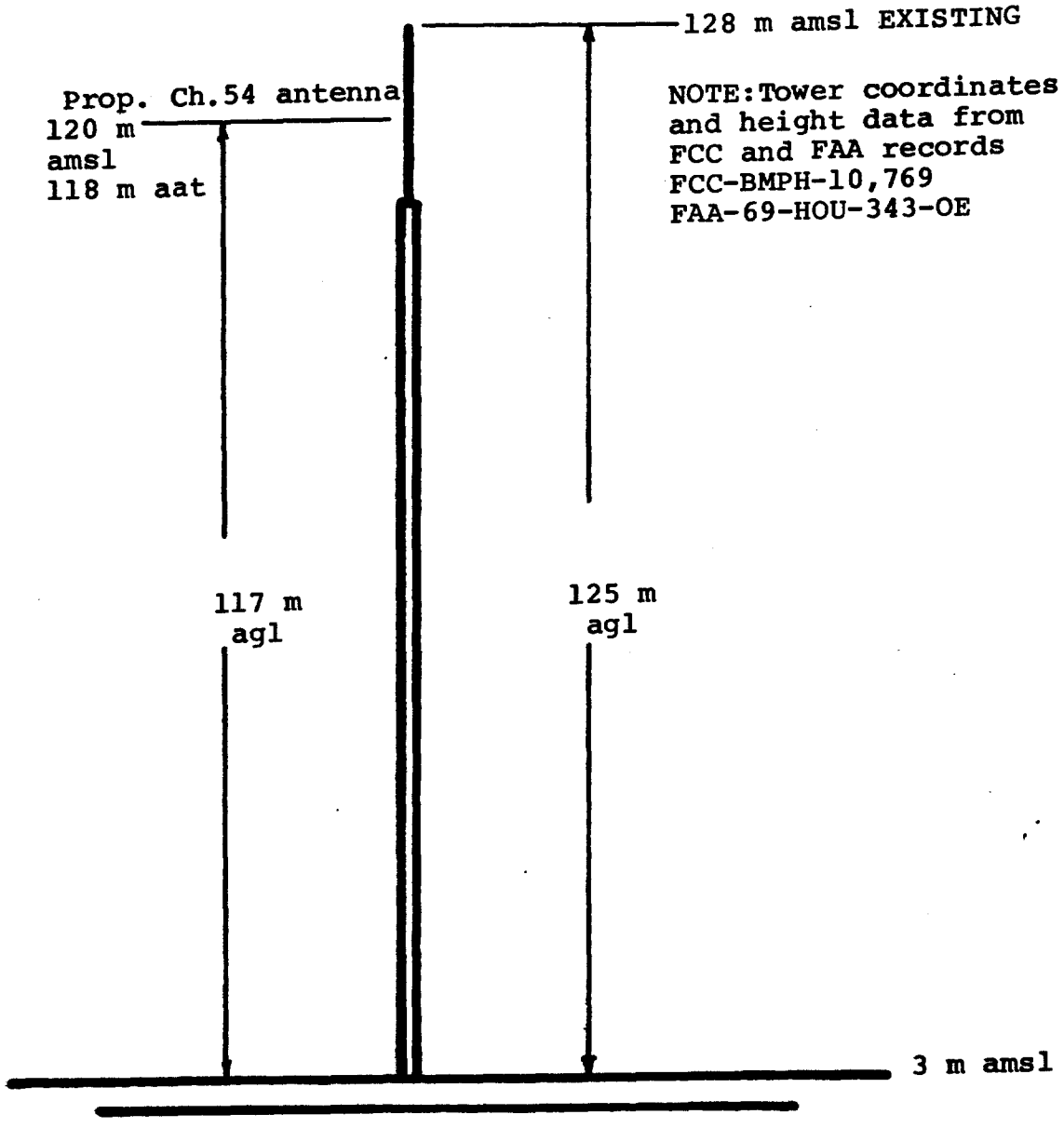
EXHIBIT E-3

VERTICAL PLAN

SITE LOCATION

NL 30°15'00"
WL 89°45'46"
Hudson & Algiers Aves,
Slidell, St.Tammany Parish LA.

EXISTING, guyed steel tower used by WSLA(AM) during daytime hours.
No height increase proposed



NOTE:Tower coordinates and height data from FCC and FAA records
FCC-BMPH-10,769
FAA-69-HOU-343-OE

not to scale

guys not shown

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EXHIBIT E-4

TABULATION OF OPERATING CONDITIONS

Antenna:

Make: Dielectric Type No.: TLP24A Type: Slotted cylinder

Max. Gain: 25 Hor. Gain: 21 Beam Tilt: -0.5

Transmission Line:

Make: Andrew Type No.: MACX675 Loss-dB/100': 0.116

Size: 6-1/8" Length: 410'(125 m) Loss: -0.594 dB

Efficiency: 0.872

Operation:

ERP Max. Visual: 500 kW ERP Max.Aural: 50 kW

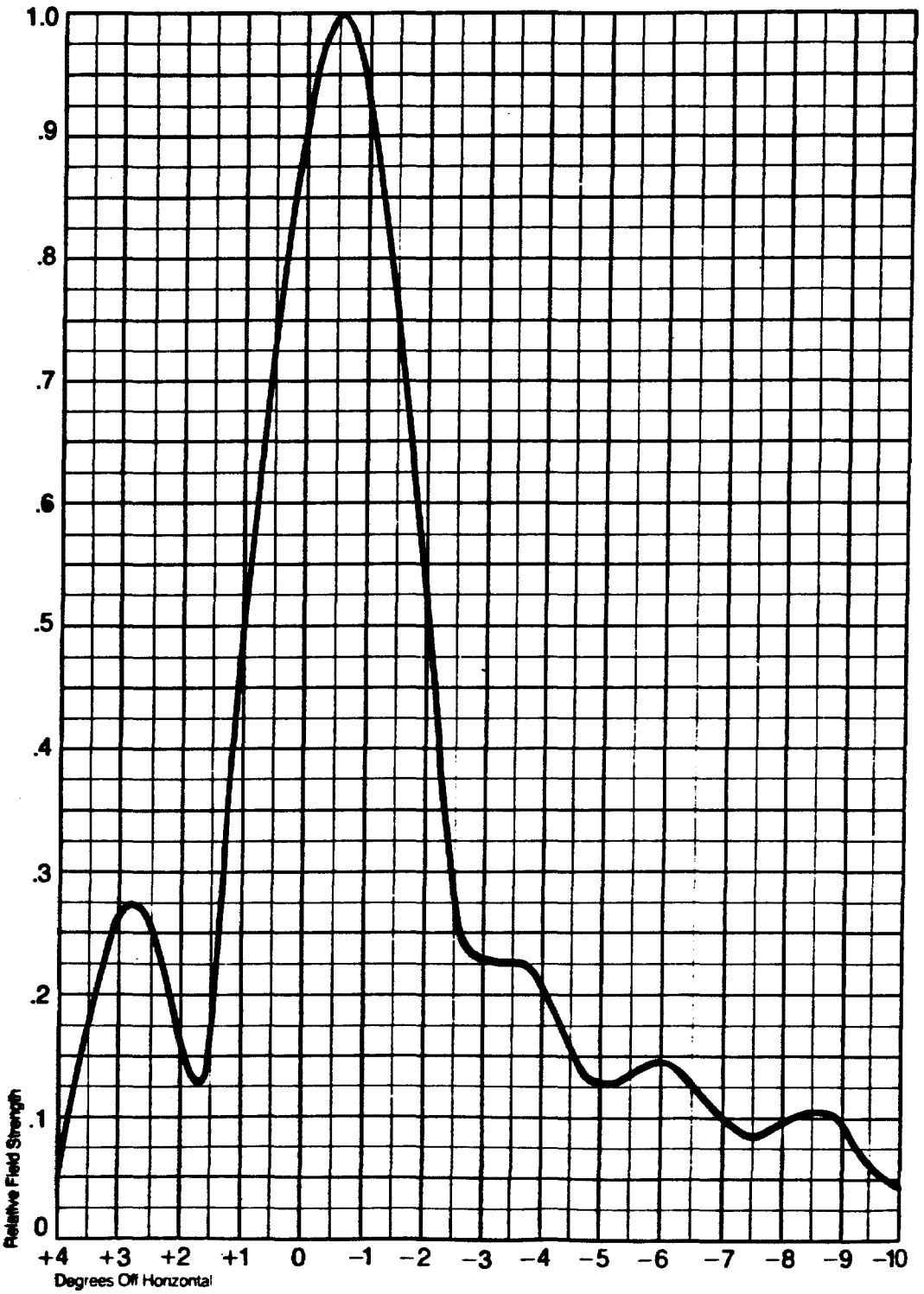
Antenna Input Power: 20 kW Transmitter Output Power: 22.94 VkW
2.29 AkW

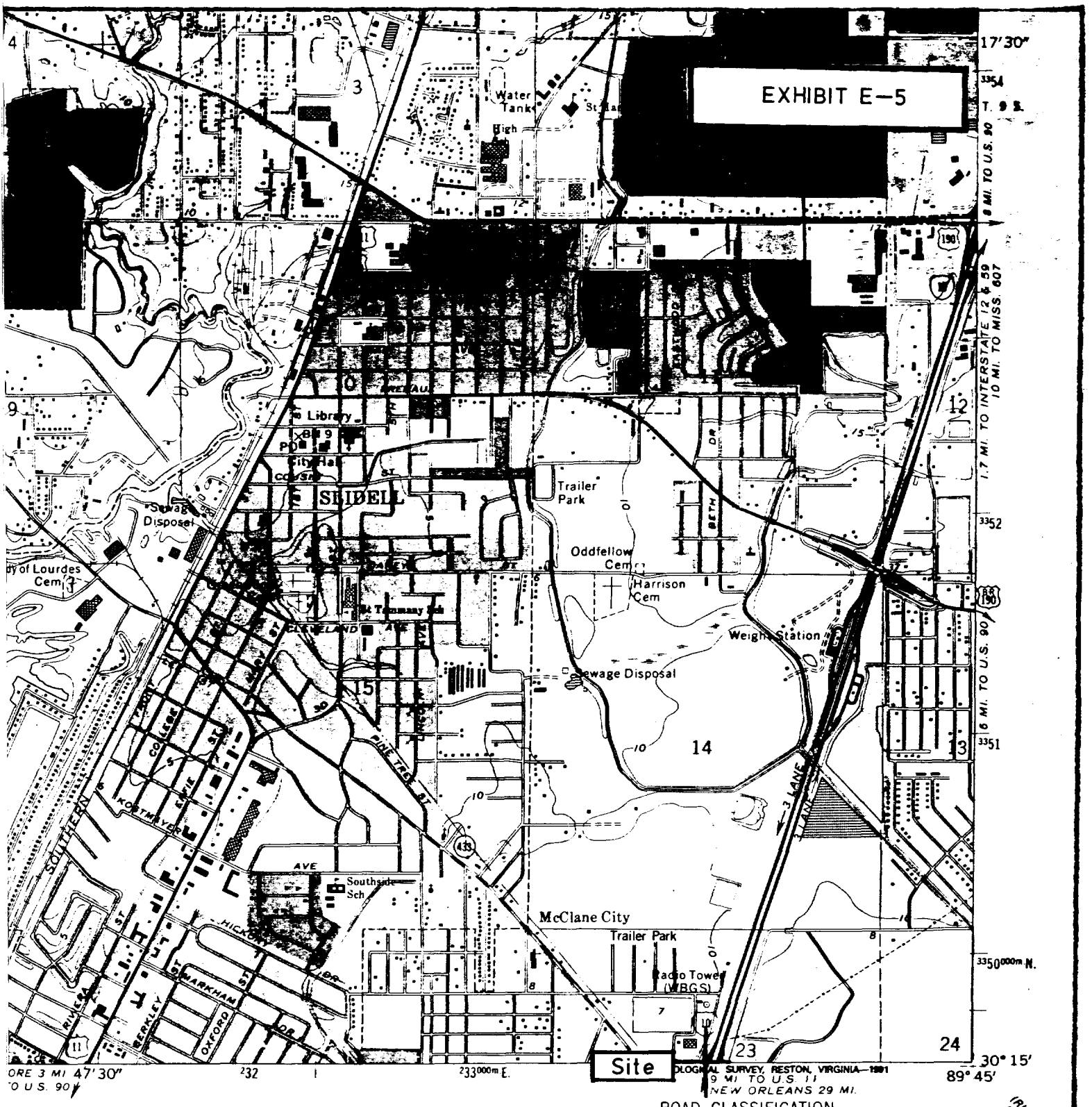
Transmitter to be Type Accepted. Monitoring as required.

EXHIBIT E-4A

CALCULATED VERTICAL RADIATION PATTERN CH. 54+

Power Gain: 25 -0.5° Electrical Beam Tilt Smooth Null Fill
TLP24A





ROAD CLASSIFICATION

Primary highway, hard surface

Light-duty road, hard or improved surface

Secondary highway, hard surface

Unimproved road

Interstate Route

U. S. Route

State Route

QUADRANGLE LOCATION

Revisions shown in purple and woodland compiled from aerial photographs taken 1978. Map edited 1979. This information not field checked

Purple tint indicates extension of urban area

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SLIDELL, LA.

30089-C7-TF-024

1971
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