

FCC Form 302
April 1953
Section I

Form Approved
Budget Bureau No. 52-R015.1

United States of America
Federal Communications Commission

APPLICATION FOR NEW BROADCAST STATION LICENSE

INSTRUCTIONS

- A. This form is to be used in all cases when applying for a Broadcast Station License. It consists of this part, Section I, and the following sections:
Section II-A, License Application Engineering Data Standard Broadcast
Section II-B, License Application Engineering Data FM Broadcast
Section II-C, License Application Engineering Data Television Broadcast
- B. Prepare and file three copies of this form and all exhibits and swear to one copy. File with Federal Communications Commission, Washington 25, D. C.
- C. Number exhibits serially in the space provided in the body of the form and list each exhibit in the space provided on page 2 of this Section. Date each exhibit and each antenna pattern.
- D. The name of the applicant must be stated exactly as it appears on the construction permit which is being covered.
- E. Information called for by this application which is already on file with the Commission need not be refiled in this application provided (1) the information is now on file in another application or FCC form filed by or on behalf of this applicant; (2) the information is identified fully by reference to the file number (if any), the FCC form number, and the filing date of the application or other form containing the information and the page or paragraph referred to, and (3) after making the reference, the applicant states; "No change since date of filing." Any such reference will be considered to incorporate into this application all information, confidential or otherwise, contained in the application or other form referred to. The incorporated application or other form will thereafter, in its entirety, be open to the public.
- F. This application must be executed by applicant, if an individual; by a partner of applicant, if a partnership; by an officer of applicant, if a corporation or association; or by attorney of applicant only under conditions shown in Section 1.303, Rules Relating to Organization and Practice and Procedure, in which event satisfactory evidence of disability of applicant or his absence from the Continental United States and authority of attorney to act must be submitted with application.
- G. BE SURE ALL NECESSARY INFORMATION IS FURNISHED AND ALL PARAGRAPHS ARE FULLY ANSWERED. IF ANY PORTIONS OF THE APPLICATION ARE NOT APPLICABLE, SPECIFICALLY SO STATE. DEFECTIVE OR INCOMPLETE APPLICATIONS MAY BE RETURNED WITHOUT CONSIDERATION.

File No.

Name and post office address of applicant (See Instruction D)

Notices and communications with respect to this application are to be addressed to the following - named persons at the address indicated

1. Facilities authorized by construction permit

Frequency	Channel No.	Power in kilowatts	
		Night	Day
Hours of operation		Call letters	

2. Construction permit covered by this application

File number	Date
Construction begun	Construction completed

Is the station now in satisfactory operating condition and ready for regular operation? Yes No
If not, explain

PROGRAM DATA

3. Has applicant any contract, arrangement, or understanding, expressed or implied, with a network organization for the broadcasting of network programs? Yes No

Does applicant, in the event this application is granted, propose to broadcast network programs? Yes No
If network programs are to be broadcast, state as Exhibit No. arrangements under which they are to be obtained and attach copies of any contractual arrangement which may have been made. If the arrangement is based on an oral understanding, a written statement of the arrangement should be submitted.

FINANCIAL DATA

4. Give actual costs of making installation for which construction was authorized

Transmitter proper including tubes	Antenna system, including antenna-ground system, coupling equipment, transmission line	Frequency and modulation monitors	Studio technical equipment, microphones, transcription equipment, etc.
\$	\$	\$	\$
Acquiring land	Acquiring or constructing buildings	Other items, state nature	Total
\$	\$	\$	\$

FINANCIAL DATA (Continued)

5. (a) Attach a detailed balance sheet, as at the completion date of the authorized construction, showing applicant's financial position as Exhibit No. (b) If the actual cost of construction materially exceeds the original estimated cost of construction, attach as Exhibit No. a detailed statement showing the plan used to finance such construction. (If applicant is licensee of a broadcast station having on file with the Commission an Annual Financial Report (FCC Form 324) showing its financial position within the past 12 months and the request in this application is for a change in existing facilities, these exhibits need not be supplied provided that no substantial reduction in financial position has occurred.)

6. State changes, if any, in capitalization, and report any contracts affecting ownership not shown in the application for construction permit. (If none, so state)

7. Apart from the apparatus constructed, have all the terms, conditions, and obligations set forth in the above-described application for construction permit been fully met? If "No", state exceptions. Yes No

8. Is a request for authority to conduct program tests a part of this application? Yes No

The applicant waives any claim to the use of any particular frequency or of the other as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests a station license in accordance with this application. (See Section 304 of the Communications Act of 1934)

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

All the statements made in the application and attached exhibits are considered material representations, and all the exhibits are a material part hereof and are incorporated herein as if set out in full in the application.

The applicant, or the undersigned on the applicant's behalf, states that he has endeavored to supply full and correct information as to all matters which are relevant to this application and that he has done so as to all matters within his own knowledge.

Dated this _____ day of _____, 19_____.

(Name of applicant)

By _____

Title

Subscribed and sworn to before

Notary Public

me this _____ day of _____, 19_____.
(SEAL)

(Notary public's seal must be affixed where the law of jurisdiction requires, otherwise state the law does not require seal.)

My commission expires _____

EXHIBITS furnished as required by this form:

Exhibit No.	Section and Para. No. of Form	Name of officer or employee (1) by whom or (2) under whose direction exhibit was prepared (show which)	Official title

Broadcast Application		FEDERAL COMMUNICATIONS COMMISSION				Section II - A					
LICENSE APPLICATION ENGINEERING DATA STANDARD BROADCAST			Name of applicant _____								
Purpose of authorization applied for: (Check one) <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div> <input type="checkbox"/> Station license <input type="checkbox"/> Direct measurement of power </div> <div style="text-align: center;"> Answer Paragraphs 1 thru 13 2, 6, 7, 8, 9, 14 </div> </div>			7. Operating constants: (If directional system, give current at point of resistance measurement.)								
			RF common point or antenna current without modulation for night power in amperes Night _____ Day _____		RF common point or antenna current without modulation for day power in amperes Night _____ Day _____						
1. Facilities authorized in construction permit			Actual measured antenna or common point resistance (in ohms) at operating frequency		Actual measured antenna or common point reactance (in ohms) at operating frequency						
Call letters _____		File No. of construction permit _____		Night _____ Day _____		Night _____ Day _____					
Frequency _____		Hours of operation _____		Power in kilowatts		Currents, and phases for directional operation					
				Night _____ Day _____							
2. Station location			Phase reading in degrees		Antenna base current		Remote indication of antenna current				
State _____		City or town _____		Night _____ Day _____		Night _____ Day _____		Night _____ Day _____			
3. Transmitter location			Tower								
State _____		County _____									
City or Town _____		Street Address (or other identification) _____									
4. Main studio location			Manufacturer and type of phase monitor used in taking above readings:								
State _____		County _____		Describe equipment used for remote indication of antenna currents (phase monitor or other method)							
City or Town _____		Street and number _____									
5. Remote control point location			8. Description of antenna system								
State _____		City or town _____		(If directional antenna is used, the information requested below should be given for each element of the array. Use separate sheets if necessary. Height figures should not include obstruction lighting.)							
Street Address (or other identification) _____			Type radiator		Height in feet of complete radiator above base insulator, or above base if grounded.						
6. Transmitter Installed			Overall height in feet above ground.		If antenna is either top loaded or sectionalized, describe fully as Exhibit No.						
Make _____		Type No. _____		Rated Power _____		Excitation Series <input type="checkbox"/> Shunt. <input type="checkbox"/>					
Last radio stage			Total unmodulated plate current		Plate voltage		Geographic coordinates to nearest second.				
Night						For directional antenna give coordinates of center of array. For single vertical radiator give tower location.					
Day						North latitude		West longitude			
						° ' "		° ' "			
Operation of last radio frequency amplifier stage <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div>A <input type="checkbox"/></div> <div>B <input type="checkbox"/></div> <div>BC <input type="checkbox"/></div> <div>C <input type="checkbox"/></div> <div>D <input type="checkbox"/></div> </div>			If not fully described above, give further details and dimensions including any other antennas mounted on tower and associated isolation circuits as Exhibit No.								
Manufacturer's recommended operating efficiency for the last radio frequency amplifier stage in percent. Is inverse feedback utilized? Yes <input type="checkbox"/> No <input type="checkbox"/> If "Yes", to what value of feedback power is transmitter adjusted (in db) Efficiency of the last radio frequency amplifier stage as now adjusted			Details and dimensions of ground system: (Attach sketch as Exhibit No. if necessary for complete description)								
			$\left(\text{use formula } \frac{I_p^2 R_p}{E_p I_p} (100\%) \right)$								

9. Antenna resistance measurement

Attach as Exhibit No. _____ the following:

- | | |
|---|--|
| <p>a. Qualifications of engineers taking measurements</p> <p>b. Schematic diagram showing clearly all components of coupling circuits, point of resistance measurement, location of antenna ammeter, connections to and characteristics of all tower lighting isolation circuits, static drains, and any other fixtures, lines, etc., connected to or supported by the antenna, including other antennas and associated circuits.</p> <p>c. Full description of method used to make measurements.</p> | <p>d. Manufacturer's name of each calibrated instrument used and manufacturer's rated accuracy.</p> <p>e. Date, accuracy, and by whom each instrument was last calibrated.</p> <p>f. Table of complete data taken.</p> <p>g. The graph drawn of 10 to 12 readings in a band 50 to 60 kilocycles wide with the operating frequency near the center.</p> |
|---|--|

10. Modulation monitor

Make	Type No.
------	----------

11. Frequency monitor

Make	Type No.
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By what method and how often will regular checks of the calibration of the frequency monitor be repeated?

Give the following data on the checks of the frequency

Date and time	Name of checking agency or method used
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____

Frequency measured by such agency or method	Monitor reading high or low
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____

12. Give method of varying power to compensate for variation of line voltage.

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

14. Give reason for the change in antenna or common point resistance.

I certify that I am the Technical Director, Chief Engineer or Consulting Engineer for the applicant of the radio station for which this application is submitted and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief. (This signature may be omitted provided the engineer's original signed report of the data from which the information contained herein has been obtained is attached hereto.)

Technical Director, Chief Engineer or Consulting Engineer

Date _____

Broadcast Application		FEDERAL COMMUNICATIONS COMMISSION		Section II - B	
LICENSE APPLICATION ENGINEERING DATA FM BROADCAST			Name of applicant		
1. Facilities authorized in construction permit			9. Modulation monitor		
Call letters	File No. of construction permit		Make	Type No.	
Frequency	Effectivo radiated power in kilowatts	Antenna height above average terrain	10. Frequency monitor		
Make			Make	Type No.	
2. Station location			By what method and how often will regular checks of the calibration of the frequency monitor be repeated?		
State	City or town				
3. Transmitter location					
State	County				
City or town	Street Address (or other identification)		Give the following data on the checks of the frequency		
4. Main studio location					
State	County				
City or town	Street address				
5. Remote control point location			Date and time	Name of checking agency or method used	
State	City or town		1. _____		
Street Address (or other identification)			2. _____		
			3. _____		
			4. _____		
			Frequency measured by such agency or method	Monitor reading high or low	
1. _____					
2. _____					
3. _____					
4. _____					
6. Transmitter installed			11. Attach as Exhibit No. _____ data, diagrams, and appropriate graphs together with description of measurement procedures and instruments with regard to the following: (All measurements shall be made with the equipment adjusted for normal program operation and shall include all circuits between the main studio microphone terminals and the antenna output, including telephone lines, preemphasis circuits and any equalizers employed except for microphones, and without compression if a compression amplifier is installed.) a. Audio frequency response from 50 to 15,000 cycles for approximately 25, 50 and 100 percent modulation. Measurements shall be made on at least the following audio frequencies: 50, 100, 400, 1000, 5000, 10,000 and 15,000 cycles. The frequency response measurements should normally be made without deemphasis; however, standard 75 microsecond deemphasis may be employed in the measuring equipment or system provided the accuracy of the deemphasis circuit is sufficient to insure that the measured response is within the prescribed limits. b. Audio frequency harmonic distortion for 25, 50 and 100 percent modulation for the fundamental frequencies of 50, 100, 400, 1000 and 5000 cycles. Audio frequency harmonics for 100 percent modulation for fundamental frequencies of 10,000 and 15,000 cycles. Measurements shall normally include harmonics to 30,000 cycles. The distortion measurements shall be made employing 75 microsecond deemphasis in the measuring equipment or system. c. Output noise level (frequency modulation) in the band of 50 to 15,000 cycles in decibels below the audio frequency level representing a frequency swing of 75 kilocycles. The noise measurements shall be made employing 75 microsecond deemphasis in the measuring equipment or system. d. Output noise level (amplitude modulation) in the band of 50 to 15,000 cycles in decibels below the level representing 100 percent amplitude modulation. The noise measurements shall be made employing 75 microsecond deemphasis in the measuring equipment or system.		
Make	Type No.	Rated Power			
7. Operating constants					
D.C. plate current in last radio stage, in amperes	Applied D.C. plate voltage of last radio stage, in volts				
Plate input power to last radio stage, in kilowatts	Efficiency factor F of transmitter at operating power, in percent				
Transmitter power output in kw by indirect method	RF transmission line meter reading				
8. Antenna and transmission line					
Antenna make and type No.	Number of sections	Power gain			
Overall height of antenna system above ground in feet,					
Geographical coordinates of antenna (to nearest second)					
North latitude	West Longitude				
0	0				
Antenna supporting structure					
Transmission line					
Make	Type No.	Description			
Size: (nominal inside transverse dimension) in inches	Length in feet	Rated efficiency in percent for this length			

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

I certify that I am the Technical Director, Chief Engineer or Consulting Engineer for the applicant of the radio station for which this application is submitted and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief. (This signature may be omitted provided the engineer's original signed report of the data from which the information contained herein has been obtained is attached hereto.)

Technical Director, Chief Engineer or Consulting Engineer

Date

Broadcast Application		FEDERAL COMMUNICATIONS COMMISSION				Section II - C	
LICENSE APPLICATION ENGINEERING DATA TELEVISION BROADCAST			Name of applicant				
1. Facilities authorized in construction permit					Aural transmitter		
Call letters	Channel No.	File No. of construction permit			D. C. plate current in last radio stage, in amperes	Applied D. C. plate voltage of last radio stage, in volts	
Frequency _____		Carrier frequency			Plate input power to last radio stage in kilowatts	Efficiency factor F of transmitter at operating power, in percent	
		Visual _____ Mc					
Effective Radiated Power (visual) In dbk: In kw:	Effective Radiated Power (aural) In dbk: In kw:	Antenna height above average terrain feet		Transmitter power output In dbk: In kw:	RF transmission line meter reading		
2. Station location (principal community)					6. Antenna and transmission line		
State		City or town			Antenna make and Type No.	Number of sections	Power gain in db
3. Transmitter location					Antenna supporting structure		
State		County			Overall height of antenna system above ground in feet		
City or town		Street Address (or other identification)					
4. Main studio location					Geographical coordinates of antenna (to nearest second)		
State		County			North latitude	West longitude	
City or town		Street address			0 " 0 "		
5. Transmitters Installed					If directional antenna is used, give full details including horizontal and vertical plane radiation patterns, as Exhibit No.		
Visual					Is electrical or mechanical beam tilting employed? Yes <input type="checkbox"/> No <input type="checkbox"/>		
Make	Type No.	Rated power		If so, describe fully in Exhibit No., including horizontal and pertinent vertical radiation patterns.			
		In dbk:		Has antenna been altered to provide null fill-in? Yes <input type="checkbox"/> No <input type="checkbox"/>			
		In kw:		If so, describe fully in Exhibit No.			
Aural					Transmission line		
Make	Type No.	Rated power		Make	Type No.	Coaxial or waveguide	
		In dbk:		Size (nominal inside transverse dimensions) in inches	Length in feet	Power loss in db for this length	
		In kw:					
Operating constants							
Visual transmitter (while transmitting blank)					Multiplexer		
D. C. plate current in last radio stage, in amperes		Applied D. C. plate voltage of last radio stage, in volts			Make		Type No.
Transmitter power output (after vestigial sideband filter, if used, and after multiplexer, if combined) In dbk: In kw:		Multiplexer loss in db, if separate:	Input to transmission line in dbk:		If emergency antenna or transmission line measures are provided, describe in Exhibit No.		
7. Modulation monitors					(a) Visual monitor or monitoring equipment		
Transmission line power loss in db:	Antenna input power in dbk:	Antenna power gain in db:	Effective radiated power In dbk: In kw:		Make		Type No. (or describe in Exhibit No. _____)
Attach as Exhibit No. _____ complete information concerning the method of power output determination. If power is measured at output of multiplexer, so state.					(b) Aural monitor		
Reading of power output meter (transmission line voltage, current or power; indicate which) while operating at authorized power:					8. Frequency monitors		
					(a) Visual monitor		
					Make		Normal limits of deviation of carrier frequency shown by monitor high _____ cps. high low _____ cps. low
					Type No.		

8. (Continued)

(b) Aural monitor

Make	Normal limits of deviation of carrier frequency shown by monitor	
Type No.	cps. low	high cps. low

If either frequency monitor indicates any carrier deviation in excess of the permissible tolerance, describe in Exhibit No. and state the corrective measures taken.

If the carrier frequencies have been measured by other means, describe in Exhibit No. , giving the date, method used or frequency measuring service employed, the results obtained and the monitor readings (high or low) at the time.

9. Performance data - Visual transmitter

a. Attach as Exhibit No. data showing the following:

1. Overall attenuation versus frequency of the visual transmitter;
2. Field strength or voltage of the lower side-band for a modulating frequency of 1.25 mc. or greater, and of the upper side-band for a modulating frequency of 4.75 mc. or greater;
3. A description of the equipment and technique used in making these measurements.

b. Attach as Exhibit No. data demonstrating that the waveform of the transmitted signal conforms to that specified by the standards. Until the form of these measurements may be specified by the Commission, the character of this data is left to the discretion of the applicant.

c. Attach as Exhibit No. a photograph of a test pattern taken from a receiver or monitor connected to the transmitter output.

10. Performance data - Aural transmitter

Attach as Exhibit No. data, diagrams, and appropriate graphs together with description of measurement procedures and instruments with regard to the following: (All measurements shall be made with the equipment adjusted for normal program operation and shall include all circuits between the main studio microphone terminals and the antenna output, including telephone lines, pre-emphasis circuits and any equalizers employed except for microphones, and without compression if a compression amplifier is installed.)

- a. Audio frequency response from 50 to 15,000 cycles for approximately 25, 50 and 100 percent modulation. Measurements shall be made on at least the following audio frequencies: 50, 100, 400, 1000, 5000, 10,000 and 15,000 cycles. The frequency response measurements should normally be made without deemphasis; however, standard 75 microsecond deemphasis may be employed in the measuring equipment or system provided the accuracy of the deemphasis circuit is sufficient to insure that the measured response is within the prescribed limits.
- b. Audio frequency harmonic distortion for 25, 50 and 100 percent modulation for the fundamental frequencies of 50, 100, 400, 1000 and 5000 cycles. Audio frequency harmonics for 100 percent modulation for fundamental frequencies of 10,000 and 15,000 cycles. Measurements shall normally include harmonics to 30,000 cycles. The distortion measurements shall be made employing 75 microsecond deemphasis in the measuring equipment or system.
- c. Output noise level (frequency modulation) in the band of 50 to 15,000 cycles in decibels below the audio frequency level representing a frequency swing of 25 kilocycles. The noise measurements shall be made employing 75 microsecond deemphasis in the measuring equipment or system.
- d. Output noise level (amplitude modulation) in the band of 50 to 15,000 cycles in decibels below the level representing 100 percent amplitude modulation. The noise measurements shall be made employing 75 microsecond deemphasis in the measuring equipment or system.

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

I certify that I am the Technical Director, Chief Engineer or Consulting Engineer for the applicant of the radio station for which this application is submitted and that I have examined the foregoing statement of technical information and that it is true to the best of my knowledge and belief. (This signature may be omitted provided the engineer's original signed report of the data from which the information contained herein has been obtained is attached hereto.)

Date _____

Technical Director, Chief Engineer or Consulting Engineer