Dear Applicant,

We would like to take this opportunity to ***Thank You*** for choosing APCO Licensing Services! Rest assured you are in good hands. We have qualified and professional staff with extensive knowledge in FCC rules and procedures.

Our goal is to make this process as easy as possible for you. We will walk you through the licensing procedure from start to finish and will be here every step of the way to answer any questions you may have.

Because we truly appreciate our customers, the following services are already included when you use APCO Licensing Services to prepare your new station license, or modification of an existing license:

- FRN Registration (**F**CC **R**egistration **N**umber)
- Wideband Removal (Narrowbanding)
- Administrative Updates
- Control Point Updates

Please fill out the attached Licensing Service worksheet to the best of your knowledge. You may send it back via fax or email and we will inform you if any additional information is required. If you need any assistance with filling out the worksheet or simply have any questions, please feel free to contact one of our experienced licensing professionals.

Karen Sowers, Licensing Specialist
Direct: (386) 944-2469
Fax: (386) 322-2502
Email: sowersk@apcointl.org
www.apcoafc.org

Thank you for your business!

AFC-APCO's Spectrum Management Division – Licensing Services

351 N Williamson Blvd., Daytona Beach, Fl 32114-1112 (386) 322-2500

Please complete this worksheet and send to the APCO Licensing Service for initial review. You will be contacted for any additional information required to complete the FCC Form 601, and you will be notified of the fees for application preparation and coordination.

Applicant Information

FCC Registration Number (FRN): _____ **(Required item)**
(If your agency does not have an FRN, you will need to register your Taxpayer Identification Number (TIN) with the FCC. Go to https://apps.fcc.gov/coresWeb/publicHome.do to register.

Entity Name: _____

Attention: _____ Title: _____

Mailing Address: _____ City: _____

State: _____ Zip Code: _____ Phone: ( ) _____ E-mail: _____

Applicant's Representative (if different than above): _____

Phone: ( ) _____ Fax: ( ) _____ E-mail: _____

APCO Member? ____Yes ____No

Eligibility: _____ Governmental Entity _____ Corporation

Do you want Public Safety frequencies or Business frequencies_____

- Call Sign: _____ or New Station License ____
- Please briefly explain what you are requesting: _____

  _____
- Is this a request for a Special Temporary Authority (STA), due to an emergency situation? Yes ____ No ____
  (STAs may be requested if a license has been expired for more than 30 days to allow continuous operations while an application for a permanent license is being officially coordinated, certified, and submitted to the FCC for license grant. STAs can also be requested in circumstances where immediate or temporary operations are necessary while an application for a permanent license is being processed. Refer to FCC rule 1.931 for more information.)
- Interconnect to public switched telephone: _____ Yes _____ No
- Does the system include mobile talk-around (car-to-car)? _____ Yes _____ No
- Is this system trunked _____ or conventional _____?
- List any call signs that are associated with the requested system: _____
- List Control Points (Contact Points): *(Attach list if more than one address)*
  (Enter the address and phone number where a person responsible for system operations may be reached.)

  Street Address (no POB), or geographical description: _____

  City: _____ County: _____ State: _____

  Telephone Number: ( ) _____

General Certification Statements

1) The Applicant 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.
2) The Applicant certifies that grant of this application would not cause the Applicant to be in violation of any pertinent cross-ownership or attribution rules.* *If the Applicant has sought a waiver of any such rule in connection with this application, it may make this certification subject to the outcome of the waiver request.
3) The Applicant certifies that all statements made in this application and in the exhibits, attachments, or documents incorporated by reference are material, are part of this application, and are true, complete, correct, and made in good faith.
4) The Applicant certifies that neither the Applicant nor any other party to the application is subject to a denial of Federal benefits pursuant to §5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862, because of a conviction for possession or distribution of a controlled substance. This certification does not apply to applications filed in services exempted under §1.2002(c) of the rules, 47 CFR § 1.2002(c). See §1.2002(b) of the rules, 47 CFR § 1.2002(b), for the definition of "party to the application" as used in this certification.
5) The Applicant certifies that it either (1) has current required ownership data on file with the Commission, (2) is filing updated ownership data simultaneously with this application, or (3) is not required to file ownership data under the Commission's Rules.
6) The Applicant certifies that the facilities, operations, and transmitters for which this authorization is hereby requested are either: (1) categorically excluded from routine environmental evaluation for RF exposure as set forth in 47 C.F.R. 1.1307(b); or, (2) have been found not to cause human exposure to levels of radiofrequency radiation in excess of the limits specified in 47 C.F.R. 1.1310 and 2.1093; or, (3) are the subject of one or more Environmental Assessments filed with the Commission.
7) The Applicant certifies that it has reviewed the appropriate Commission Rules defining eligibility to hold the requested license(s), and is eligible to hold the requested license(s).
8) The Applicant certifies that it is not in default on any payment for Commission licenses and that it is not delinquent on any non-tax debt owed to any federal agency.

Signature

56) Typed or Printed Name of Party Authorized to Sign

First Name:	MI:	Last Name:	Suffix:
57) Title:			
Signature:		58) Date:	

FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID.

Upon grant of this license application, the Licensee may be subject to certain construction or coverage requirements. Failure to meet the construction or coverage requirements will result in termination of the license. Consult appropriate FCC regulations to determine the construction or coverage requirements that apply to the type of license requested in this application.

WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, §1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, §312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, §503).

(General Certification Statements and **Signature** taken directly from FCC 601, Main Form, February 2008, Page 4; Applications, amendments, and related statements of fact filed on behalf of eligible government entities must be signed by a duly elected or appointed official who is authorized to do so under the laws of the applicable jurisdiction; if the applicant is a corporation, by an officer, director, or duly authorized employee; or by their legal representative as per CFR Title 47, §1.91

New Structure Types List

With the new rules for the Migratory Birds effective, June 18, 2012 (NEPA Compliance for Proposed Tower Registrations; Effects of Communications Towers on Migratory Birds) the Federal Communications Commission has revised the Structure Type list in ULS (Form 601) and ASR (Form 854) and TCNS. The revised list of Structure Types as follows:

Code	Definition
B	Building
BANT	Building with Antenna on Top
BMAST	Building with Mast
BPIPE	Building with Pipe
BPOLE	Building with Pole
BRIDG	Bridge
BTWR	Building with Tower
GTOWER	Guyed structure used for communication purposes
LTOWER	Lattice Tower
MAST	Mast
MTOWER	Monopole
NNGTANN*	Guyed Tower Array
NNLTANN*	Lattice Tower Array
NNMTANN*	Monopole Array
PIPE	Any type of Pipe
POLE	Any type of Pole
RIG	Oil or other type of Rig
SIGN	Any type of Sign or Billboard
SILO	Any type of Silo
STACK	Smoke Stack
TANK	Any type of tank (water, gas. etc.)
TREE	When used as a support for an antenna
UPOLE	Utility Pole/Tower used to provide service (electric/telephone. etc.)

Site Information

(Use additional pages for more sites)

Action: **A**dd/**M**odify/**D**elete site _____

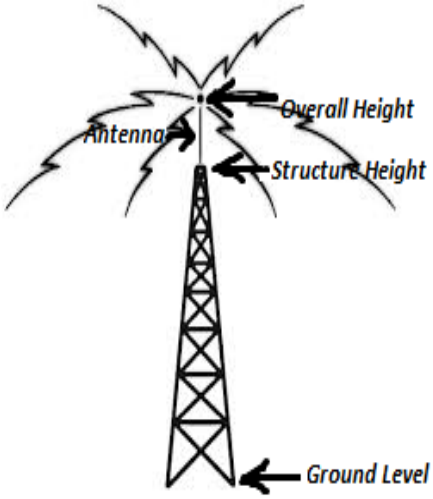
If you are modifying or deleting a site, please reference the site number from your license. **Site #** _____

Site address (POB not acceptable): _____

City: _____ County: _____ State: _____

FCC Antenna Structure Registration #: _____, or N/A _____

Latitude: (DD/MM/SS.S) _____/_____/_____ **Longitude**: (DDD/MM/SS.S) _____/_____/_____
(Coordinates must be shown in degrees, minutes, and seconds in North American datum 1983. Example: 28-32-56.9N/082-24-01.3W)



Ground Elevation: _____(meters) _____(feet)
(Measure from sea level)

Structure ht.: _____(meters) _____(feet)
(Measure from ground to the tip of the structure only)

Overall ht. (structure plus antennas): _____(meters) _____(feet)
(Measure from ground to the tip of the highest antenna)

Support structure type: _____
Examples: B (Building), GTOWER (Guyed Tower), LTOWER (Lattice Tower), TANK (Any type of tank such as gas, water, etc.)

Antenna ht.: _____(meters) _____(feet)
(Measure from ground to the tip of the antenna)

AAT for Antenna #1: _____(meters) _____(feet)
(APCO can calculate AAT for you at no charge)

If a **directional antenna** will be used, please **provide the Antenna Specification Sheet with Model & Manufacturer** and **provide the following** parameters for the main lobe. (This information should be available from the manufacturer's specification sheet included with the antenna at time of purchase.):

Antenna #	Azimuth (degrees)	Beamwidth (degrees)	Polarization	Gain (dB)

(**NOTE: If directional antenna information is not provided, the FCC will make the following assumptions:** *Azimuth: Each base or mobile relay station as having an omnidirectional (360°) azimuth. It will also be assumed that each control station associated with a mobile relay station has a directional antenna with its azimuth of maximum radiation directed toward the mobile relay station.*Beamwidth: Where an omnidirectional antenna is assumed, beamwidth has no relevance, and therefore, no assumed value will be used. For control stations, 20 percent will be assumed.*Polarization: All stations will be reported as having antennas with vertical polarization.*Gain: The antenna gain for all stations will be assumed to be 6 dB.)

Describe mobile area of operation: _____

_____

(It is recommended that your agency request a mobile area of operation using a kilometers radius of a set of coordinates, if possible.)

Frequency Band Requested

___ VHF Low Band (30-50 MHz)

___ VHF High Band (150-174 MHz)

___ UHF Band (450-470 MHz)

___ UHF TV Band (470-512 MHz)

___ 700 MHz Band (764-776/794-806 MHz)*

___ 800 MHz (809-814/854-859 MHz)

___ NPSPAC (806-808/851-853 MHz)

___ Other (please describe): _____

*Please note that 700 MHz applications are normally entered into CAPRAD. Once approved by the RPC, the application is submitted to APCO for processing to the FCC for licensing.

Frequency Separation Preference _____

Frequency Information

(Refer to next page for guidelines for this section.)

LOCATION #	ANTENNA #	NEW FREQ	MODIFY FREQ	DELETE FREQ	FREQUENCY	STATION CLASS	# UNITS	# PAGERS	OUTPUT POWER	ERP	EMISSION DESIGNATOR(S)

Use additional pages for more frequency information.

Guidelines for Frequency Information Section

Location # - If your application is for a modification of a license, reference the Location # from the license where the frequencies are that will be added, modified, or deleted. If your application is for a new station license, enter the Location # from your Site Information page where you will add a frequency.

Antenna # - If your application is for a modification of a license, enter the Antenna # from the license for the Location you are requesting to add, modify, or delete a frequency. If your application is for a new station license, enter the Antenna # from your Site Information page.

New/Modify/Delete – Choose the action for the frequency line.

Frequency – If your application is for a modification of a license, enter the frequency to be added, modified, or deleted. If your application is for a new station license, and you want to request a specific frequency, enter that frequency. However, please keep in mind that if that frequency cannot be assigned, there will be additional fees to search for a replacement frequency. If you are requesting that APCO search for a new frequency, you can leave the frequency column blank. APCO will enter the best available frequency on your application for you before it is submitted to the FCC electronically.

Station Class – Station class codes will describe your system configuration. Please refer to the following list for proper codes.

FB Station Class
Defined as "Fixed Base Station". A fixed base would be a unit that does not move from one location to another, and is often seen on a desk or table. The fixed base transmits to mobiles out in the field and receives transmissions from the mobile units all on the same frequency. Hence, two-way radio communications. A fixed base can also transmit to paging units, but the pagers do not talk back to the fixed base. This type of communications is called "simplex" operations.

MO Station Class
Defined as "Mobile". Mobiles are considered by the FCC to be units intended to be used in motion, such as vehicular, portable/handheld, aircraft, and marine units. Mobiles transmit to a base station or other mobile units.

MO8 Station Class
Defined as "Trunked Centralized Mobiles". This station class is used only in frequency bands below 512 MHz. Operates the same as regular mobiles in trunked system mode and is centralized. The system does not monitor the frequencies for co-channel users and arbitrate the operation of a frequency when another licensee is using it.

FB2 Station Class
Defined as "Repeater/Mobile Relay". Repeaters or mobile relay stations are base stations authorized to retransmit automatically on a mobile service frequency communications which originate on the transmitting frequency of the mobile station. Repeaters/Mobile Relay stations are often used to increase the coverage of the mobile units.

FB8 Station Class
Defined as "Trunked Centralized Repeater". This station class is used only in frequency bands below 512 MHz. Same as "Repeater/Mobile Relay", but operates in trunked system mode and is used when the system is centralized and does not monitor the frequencies for co-channel users and arbitrates the operation of a frequency when another licensee is using it.

FB4 Station Class
Defined as a "Community Repeater". This type of system would be the same as a Repeater/Mobile Relay, but used by several agencies within a fairly small area. The agencies may be small communities that do not necessarily have enough users to manage their own system. Needless to say, the cost of a system may also not be in their budget. These agencies/communities will sign mutual agreements and one would be designated to manage the radio system.

FX1 Station Class
Defined as "Control Station". An Operational Fixed Station, the transmissions of which are used to control automatically the emissions or operation of another radio station at a specific location. Control Stations are used with repeaters/mobile relay stations when the base might be too far away from where the mobiles operate. The base would transmit on one frequency through the Control Station and the Control Station would retransmit to the mobiles on a different frequency and the same the other way around. Control Stations are also used for links for systems requiring retransmission of frequencies to cover areas affected by terrain or distance.

The "20 foot rule" applies to Control Stations that work with repeaters only. If the Control Station antenna is 20 ft. (6.1 meters) or less, it can be shown on a license as "6.1", with an "X" for area of operation, and the state in which it operates. This does not mean that these Control Stations can operate throughout the state. The Commission only needs to know what state it is operating in. Also, UHF T-Band Control Stations and Control Stations north of Line A, or in Alaska, east of Line C (Canadian Regions) must be shown as fixed locations, rather than "6.1". The FCC requires all applicable site information be provided, as if adding a base. Wireline Control Stations do not need to be licensed as they do not use frequencies. All fixed bases, repeaters, etc. must be shown on a license with all applicable site information, whether the antenna is under or over 20 ft. (6.1 meters).

Control Stations should not be confused with Control Points. Control Points are locations where a transmitter's functions may be controlled, such as a dispatch location. All licenses are required to have at least one Control Point.

FX2 Station Class
Defined as "Fixed Relay". A station at a specific site used to communicate with another station at another specific site. A relay is a device that receives a signal from a low-power or distant transmitter and retransmits it on the same or different frequency in order to increase the coverage area. For example, the signal from a base situated in a valley would only propagate within that valley. A relay site at the top of a nearby mountain would rebroadcast the original signal to a wider area.

MO3 Station Class
Defined as "Mobile or Vehicular Repeater". A mobile station authorized to retransmit automatically on a mobile service frequency, communications to or from hand-carried transmitters. A typical system would be a mobile repeater unit in a vehicle, which allows transmissions to portables/handhelds in the field that may be too far away from their base repeater/mobile relay.

FXO Station Class
Defined as "Operational Fixed Station". A fixed station, not open to public correspondence, operated by, and for the sole use of those agencies operating their own radio communication facilities in Public Safety, and other services. This station class is often used for telemetry systems transmitting non-voice signals for the purpose of automatically indicating or recording measurements at a distance from the measuring instrument. Telemetry systems may include water monitoring at wastewater treatment plants or monitoring runways at airports for specific conditions.

FXB Station Class
Defined as "Primary Permanent Fixed Stations". This station class is used for frequencies in the 4.9 GHz frequency band in the PA radio service. This station class code is to be used for permanent fixed stations or links that meet the requirements for primary status. Secondary permanent fixed stations or links must use the existing station class code of FXO. The 4.9 GHz frequencies are used to deliver broadband service, such as a fixed video surveillance link used to monitor a high-risk target or environment.

Please Note: Some station classes will also include a "T" for temporary operations, "I" for itinerant, "S" for standby, "C" for interconnect, "J" for temporary interconnect, "K" for standby interconnect, and "L" for itinerant interconnect after the regular station class code.

 # Units – Enter the number of units for the station class entered for each frequency line. Normally, you would have 1 base, but you may have many mobile units. "Mobiles" are defined by the FCC as portables/handhelds, vehicular, aircraft, and marine. One frequency line with a total of all mobiles is acceptable.

 # Pagers – If your system includes pagers, enter the total number of pagers in use.

Output Power – In radio transmission, **transmitter power output** (**TPO**) is the actual amount of power (in watts) of radio frequency (RF) energy that a transmitter produces at its output.

This is not the amount of power that a radio station reports as its power, as in "we're 100,000 watts of rock 'n' roll", which is usually the effective radiated power (ERP). The TPO is for VHF-/UHF-transmitters normally less than the ERP, for LF-/MF-transmitters it has nearly the same value, while for VLF-transmitters it may be less.

The radio antenna's design "focuses" the signal toward the horizon, creating gain and increasing the ERP. There is also some loss (negative gain) from the feedline, which reduces some of the TPO to the antenna by both resistance and by radiating a small part of the signal.

ERP (Effective Radiated Power) – A standardized theoretical measurement of radio frequency (RF) energy using the SI unit watts, and is determined by subtracting system losses and adding system gains. ERP takes into consideration transmitter output power, transmission line attenuation (electrical resistance and RF resistance and RF radiation), RF connector insertion losses, and antenna directivity, but not height above average terrain (HAAT). ERP is typically applied to antenna system.

Emission Designator(s) - The actual emission that should be added to the license application is the emission designation as listed on the equipment's type acceptance. This information should be available in the technical specifications for your radios as listed by the manufacturer**.** You can go to our web site for more information about emission designators at https://www.apcointl.org/spectrum-management/resources/licensing-links/emission-designators.html.