

## Broadcaster Chief Operator Tools



The Chief Operator and Assistant Chief Operator need not have an FCC license. Except in certain cases, they need not be an employee of the station. They need not have in-depth technical knowledge. Qualities they *must* possess include

- Dependability – performing regular inspections, checking logs and reviewing operation
- Sense of logic – being able to evaluate an existing situation and decide if it is a violation of the station license and, if so, what steps need to be taken to correct it.

Self-inspection checklist <http://www.fcc.gov/encyclopedia/broadcast-self-inspection-checklists>

The list walks the reader through what elements of a broadcaster's license need monitoring and might be reviewed by an inspector. It helps the Chief Operator develop a calendar – daily, weekly, quarterly, yearly – of items which should be examined.

Actual Chief Operator Requirements:

Applicable Rules

### **§73.1580 Transmission system inspections.**

Each AM, FM, TV and Class A TV station licensee or permittee must conduct periodic complete inspections of the transmitting system and all required monitors to ensure proper station operation.

### **§73.1820 Station log.**

(a) Entries must be made in the station log either manually by a person designated by the licensee who is in actual charge of the transmitting apparatus, or by automatic devices meeting the requirements of paragraph (b) of this section. Indications of operating parameters that are required to be logged must be logged prior to any adjustment of the equipment. Where adjustments are made to restore parameters to their proper operating values, the corrected indications must be logged and accompanied, if any parameter deviation was beyond a prescribed tolerance, by a notation describing the nature of the corrective action. Indications of all parameters whose values are affected by the modulation of the carrier must be read without modulation. The actual time of observation must be included in each log entry. The following information must be entered:

(1) *All stations.* (i) Entries required by §17.49 of this chapter concerning any observed or otherwise known extinguishment or improper functioning of a tower light:

(A) The nature of such extinguishment or improper functioning.

(B) The date and time the extinguishment or improper operation was observed or otherwise noted.

(C) The date, time and nature of adjustments, repairs or replacements made.

(ii) Any entries not specifically required in this section, but required by the instrument of authorization or elsewhere in this part.

(iii) An entry of each test and activation of the Emergency Alert System (EAS) pursuant to the requirement of part 11 of this chapter and the EAS Operating Handbook. Stations may keep EAS data in a special EAS log which shall be maintained at a convenient location; however, this log is considered a part of the station log.

(2) *Directional AM stations without an FCC-approved antenna sampling system* (See §73.68). (i) An entry at the beginning of operations in each mode of operation, and thereafter at intervals not exceeding 3 hours, of the following (actual readings observed prior to making any adjustments to the equipment and an indication of any corrections to restore parameters to normal operating values):

(A) Common point current.

(B) When the operating power is determined by the indirect method, the efficiency factor F and either the product of the final amplifier input voltage and current or the calculated antenna input power. See §73.51(e).

(C) Antenna monitor phase or phase deviation indications.

(D) Antenna monitor sample currents, current ratios, or ratio deviation indications.

(ii) Entries required by §73.61 performed in accordance with the schedule specified therein.

(iii) Entries of the results of calibration of automatic logging devices (see paragraph (b) of this section) or indicating instruments (see §73.67), whenever performed.

(b) Automatic devices accurately calibrated and with appropriate time, date and circuit functions may be utilized to record entries in the station log *Provided:*

(1) The recording devices do not affect the operation of circuits or accuracy of indicating instruments of the equipment being recorded;

(2) The recording devices have an accuracy equivalent to the accuracy of the indicating instruments;

(3) The calibration is checked against the original indicators as often as necessary to ensure recording accuracy;

(4) In the event of failure or malfunctioning of the automatic equipment, the person designated by the licensee as being responsible for the log shall make the required entries in the log manually at that time;

(5) The indicating equipment conforms to the requirements of §73.1215 (Indicating instruments—specifications) except that the scales need not exceed 5 cm (2 inches) in length. Arbitrary scales may not be used.

(c) In preparing the station log, original data may be recorded in rough form and later transcribed into the log.

[43 FR 45854, Oct. 4, 1978, as amended at 44 FR 58735, Oct. 11, 1979; 47 FR 24580, June 7, 1982; 48 FR 38481, Aug. 24, 1983; 48 FR 44806, Sept. 30, 1983; 49 FR 33603, Aug. 23, 1984; 58 FR 44951, Aug. 25, 1993; 59 FR 67102, Dec. 28, 1994; 60 FR 55482, Nov. 1, 1995]

### **§73.1870 Chief operators.**

(a) The licensee of each AM, FM, TV or Class A TV broadcast station must designate a person to serve as the station's chief operator. At times when the chief operator is unavailable or unable to act (e.g., vacations, sickness), the licensee shall designate another person as the acting chief operator on a temporary basis.

(b) Chief operators shall be employed or serve on the following basis:

(1) The chief operator for an AM station using a directional antenna or operating with greater than 10 kW authorized power, or of a TV station is to be an employee of the station on duty for whatever number of hours each week the station licensee determines is necessary to keep the station's technical operation in compliance with FCC rules and the terms of the station authorization.

(2) Chief operators for non-directional AM stations operating with authorized powers not exceeding 10 kW and FM stations may be either an employee of the station or engaged to serve on a contract basis

for whatever number of hours each week the licensee determines is necessary to keep the station's technical operation in compliance with the FCC rules and terms of the station authorization.

(3) The designation of the chief operator must be in writing with a copy of the designation posted with the station license. Agreements with chief operators serving on a contract basis must be in writing with a copy kept in the station files.

(c) The chief operator is responsible for completion of the following duties specified in this paragraph below. When these duties are delegated to other persons, the chief operator shall maintain supervisory oversight sufficient to know that each requirement has been fulfilled in a timely and correct manner.

(1) Inspections and calibrations of the transmission system, required monitors, metering and control systems; and any necessary repairs or adjustments where indicated. (See §73.1580.)

(2) Periodic AM field monitoring point measurements, equipment performance measurements, or other tests as specified in the rules or terms of the station license.

(3) Review of the station records at least once each week to determine if required entries are being made correctly. Additionally, verification must be made that the station has been operated as required by the rules or the station authorization. Upon completion of the review, the chief operator or his designee must date and sign the log, initiate any corrective action which may be necessary, and advise the station licensee of any condition which is repetitive.

(4) Any entries which may be required in the station records. (See §73.1820.)

[46 FR 35463, July 8, 1981, as amended at 47 FR 31580, July 21, 1982; 48 FR 38482, Aug. 24, 1983; 48 FR 44806, Sept. 30, 1983; 49 FR 20670, May 16, 1984; 49 FR 50048, Dec. 26, 1984; 50 FR 32416, Aug. 12, 1985; 60 FR 55482, Nov. 1, 1995; 65 FR 30006, May 10, 2000]

Be sure to check current rules

Comments:

Anyone can be appointed "Chief Operator" or "Assistant Chief Operator." They must simply carry out (and properly record) a station's operation within the FCC Rules and Regulations. No technical knowledge is necessary other than the ability to observe metering and determine if the licensee is operating within the licensed parameters, then, if the station is outside its licensed parameters, getting the problem resolved or, if necessary, reducing power or signing the station off the air.

- Inspecting a station and performing calibrations is normally an easy task. The important items include
  - Power output – as close to 100 percent as practicable but not less than 90% nor more than 105% (For AM & FM)
  - Other transmitter parameters as are available
  - Calibration of remote control – must be within 2% (maximum) of actual transmitter readings
  - Tower lights
  - Overall modulation levels – exceeding 85% during normal programming but not exceeding 10% on peaks of frequent recurrence
  - Observance of hours of operation – if assigned.
  - Proper posting of station licenses including instrument of authorization, STL and RPU licenses.
  - More in Section 73.1580
  - Always check [http://www.ecfr.gov/cgi-bin/text-idx?SID=354375432d5e3a970e47e0ddb6e0ef28&node=pt47.4.73&rgn=div5#se47.4.73\\_11870](http://www.ecfr.gov/cgi-bin/text-idx?SID=354375432d5e3a970e47e0ddb6e0ef28&node=pt47.4.73&rgn=div5#se47.4.73_11870) or CFR 47, part 73 for rule changes
- Review station logs once a week minimum including proper recording of program types, commercial matter, actual operating hours, tower light observations and all EAS operations whether test or actual emergency. Certify by signing and dating the logs themselves or a

companion cover sheet kept at the same location. Chief Operator (or assistant) certification says that the station continuously operated within the Rules (unless otherwise noted in which case, the nature of any problems which caused operation outside the Rules and what repairs were effected, including the dates and times of such operation outside the rules and dates and times repairs were implemented.

- Records of all required measurements including dates, times, and values observed, e.g., AM field intensity measurements, AM NRSC measurements, any equipment performance tests, or other specific measurements that may be required by the station license
- All other entries required by the specific license (73.1820(c)ii)

The typical Chief Operator of an FM station weekly routine might be along these lines:

- First of the week, review previous 7 days' logs checking for operator sign on/off, transmitter on/off times, station ID's, STL ID, tower light observations, EAS tests/alerts sent/received, signing and dating each log and adding explanations of any discrepancies, e.g., "Transmitter off air from 10:12AM to 10:21AM, main power outage at tower site." (sign, date)
- Travel to transmitter site and check transmitter power output, determining that it is within tolerance then (depending on remote control) either calibrating directly or calling in or having someone call in to check remote control readings against actual transmitter readings, reading and logging existing readings then making adjustments and re-logging the new readings along with the date, time and signature. Observation of actual tower light operation if a remote sensor is used at the studio.
- Observation of modulation monitor and modulation levels
- Observation of licensing information to make sure all licenses are accessible

Designation:

A simple declarative agreement will suffice:

As of (date) W??? hereby appoints (Name) as Chief Operator. W??? also appoints (Name) as Assistant Chief Operator.

Signed:

W???  
Date

Chief Operator  
Date

Assistant Chief Operator  
Date

**IMPORTANT: SCOPE+FOCUS, INC. DOES NOT PROVIDE LEGAL ADVICE. FOR FCC RULES APPLICATION AND INTERPRETATION, SEE YOUR COMMUNICATIONS ATTORNEY**

**See Sample Log Below**



Log: Maintenance and Inspection.  
 Addendum to Station Log

Date: \_\_\_\_\_  
 Time: \_\_\_\_\_ Various \_\_\_\_\_  
 Central Standard/Advanced Time

For:

- (Station Call Letters)
- Other \_\_\_\_\_
- All in apparent proper working order \_\_\_\_\_
- Quarterly tower inspection results \_\_\_\_\_

Notes:

Transmitter and Transmission System Readings (not all readings applicable to all facilities)

	Time	$E_{final}$	$I_{final}$	Forward Power	Reflected Power	Common Point or Antenna Current	Current Ratio 1:X		Phase + degrees		Other
Transmitter							1		0		
Remote											
Remote adjusted to											
Transmitter											
Remote											
Remote adjusted to											

Power Output via Direct Method. If not checked, Indirect Method, efficiency = \_\_\_\_ (Initial) \_\_\_\_

Frequency Readings: Frequency Measured \_\_\_\_\_ Adjusted to \_\_\_\_\_  
 Measurements made via \_\_\_\_\_, S.N. \_\_\_\_\_ calibrated via \_\_\_\_\_

The above were performed by me or under my direct supervision \_\_\_\_\_

Abbreviations addressed and explained in front of log book.