



The

Broadcasters' Desktop Resource

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... edited by Barry Mishkind – the Eclectic Engineer

Focus on Regulation **Chief Operator or Chief Engineer?**

[July 2012] All broadcast stations need to ensure operations conform to the FCC Rules. In recent years, deregulation has changed some of the requirements – and who has the responsibility to ensure everything is done correctly. Just who is it – and what do you call him?

For much of broadcast history, every radio station had a Chief Engineer (CE) to oversee the technical needs of the station, including FCC compliance.

The Chief Engineer was respected and ruled the station operations, making decisions on technical gear, staff members, and more. Not infrequently in past years, the Chief Engineer might even become the station's General Manager.

If you look at the FCC Rules today, you will find they instead refer to a Chief Operator (CO). Is the Chief Operator the same as the Chief Engineer?

THE ENGINEER

Over time, some confusion has crept into the terminology. And, of course, some bureaucrats.

According to most dictionaries, an “engineer” is a person who is trained to design, build, operate or maintain engines, machines, or public works. An operator, as you might expect, is one who operates equipment or an enterprise. Similarly, someone who skillfully or shrewdly manages an enterprise might be called an engineer or an operator.

Clearly these definitions leave a lot of room for everyone. Is the person who drives a train an

engineer or an operator? Is the person who fixes the stove an engineer or a technician?

For many years, broadcast engineers have straddled technologies, managing the technical needs of radio and TV stations by operating and maintaining the equipment, but also often handling various projects by designing and building things as needed.

Regulators in some states have tried to prevent broadcast engineers from using the term engineer, insisting they observe the state testing and licensing requirements for Registered Professional Engineers (RPEs).

A number of presentations have been made in those states by different trade groups, so in general, in most places, so long as a broadcaster does not try to pass himself off as an RPE, there have been few problems.

Meanwhile, over the years, the FCC has reduced and eliminated all licensing for all classes of broadcast engineers/operators. This included no longer expecting the station engineer to be as responsible for proper operation as the station owner.

CHIEF OF WHAT?

The concept of Chief Engineer implies there are other engineers under the direction of the Chief, in addition to physical plant itself.

This was true for many years. Some broadcast stations in the 1920 had more than 150 people on staff to maintain the transmitters, operate the control boards, and otherwise provide resources

to get programs on the air. When an engineer changed jobs, his RadioTelephone License would be endorsed by the Chief Engineer, In fact, the Rules stated that an engineer could be fined personally for operation outside that permitted by the station authorization.

Today, there is a little drift in the usage as the Chief Engineer is often the only engineer in a facility. Essentially it is a title given the person who has the responsibility for technical operations of a station or cluster. It is not too dissimilar to how an automated station might have just one announcer, who nevertheless is said to be the Chief Announcer.

THE CHIEF OPERATOR

However, it is the Chief Operator that the FCC identifies as the person charged to accomplish certain tasks in a broadcast facility – to be the eyes and ears of the licensee.

Generally speaking, an operator is one who is in charge of the station's on-air operations - a combo announcer, a board op, etc. Sometimes the Chief Operator is the Chief Engineer. Often he is not. But it is the Chief Operator who is specified in the FCC Rules (Section 73.1870) to accomplish certain duties on behalf of the licensee (Note: 73.1870 is among the Rules that *do not apply* to LPFM stations.)

According to the Rules, the Chief Operator must be an employee if the station is an AM over ten kilowatts, an AM Directional station, or a TV station. For Non-directional AMs and for FMs the CO can be a contractor.

Either way, the station must show the CO is be employed for sufficient hours a week to fulfill their duties.

A letter designating the Chief Operator – and an Acting Chief Operator, in the event the CO is unavailable – must be posted by the station license. In the case of a contractor being the CO, a copy of the contract agreement must be in the station files.

CO DUTIES

According to the FCC, the CO has four specific duties to perform – *or be responsible for supervising another employee whose duty is to perform one of more of these duties.*

1. Inspections and calibrations of the transmission system, required monitors, the metering and control systems, and any necessary repairs or adjustments where indicated (as noted in Section 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 to make sure the station's signal is within that authorized.
3. Review the station records at least once each week to determine if the required entries are being made correctly. With his dated signature the CO verifies the station has been operated as required by the Rules or the station authorization or that he has initiated any necessary corrective actions.
4. Any entries which may be required to be in the station records. (See Section 73.1820.)

The Chief Operator is not required to repair gear or correct any problems – in fact many COs are not competent to do so. That is fine. If something is found not to be in order, *the CO's responsibility is to notify the Chief Engineer and/or the station management right away.*

THE STATION LOG

It is worth taking time to review what belongs in the station log, each sheet of which is dated and numbered. (Section 73.1800)

The station log is an orderly and legible document, kept by employees competently trained to do so and having actual knowledge of the facts

required. All entries must accurately reflect the station operation. Employees making a log will sign the log to attest to the accuracy of the information.

The key is to make sure everything required is there, and nothing that is not required is included. Stray entries have been known to create real problems during an inspection. Always remember to answer the FCC truthfully at all times, but that does not mean you volunteer information that is not asked for by the field agents.

The Station Log includes:

1. The correct date and time of any observation.
2. Any operating parameters that are required to be logged, prior to any adjustment of the equipment. Where adjustments are made to parameters beyond prescribed tolerances, the corrected parameters and the nature of the corrective action must be logged.
3. The daily check for proper operation of the tower lighting system, if any. Any loss or improper functioning of a tower light and/or lighting control system. If the FAA is notified, that should be logged. Also, the date and time repairs or replacements were made.
4. An entry of each test and activation of the Emergency Alert System (EAS). The EAS data may be on a separate log if desired – but it is part of the station log. Any failed tests or loss of operation

should be noted with the reason thereof, as well as the time and date the system is returned to normal operation.

5. An entry noting each mode of operation of Directional AM stations without an FCC-approved antenna sampling system, as well as an entry every 3 hours or less with:
 - a. The common point current or Power determined by the indirect method (including the efficiency factor “F”).
 - b. The antenna monitor phase or phase deviation indications.
 - c. Antenna monitor sample currents, current ratios, or ratio deviation indications.
 - d. Monitor Point field strength readings as required.
6. The results of calibration of automatic logging devices or indicating instruments whenever performed.

The Chief Operator’s duties can be done conscientiously or carelessly. Making sure the CO understands the importance of his position, is properly trained, and is supported by station management goes a long way to build and maintain a record proving the station has made every effort to maintain operation according to its FCC Authorization.

And that will go a long way to keep any visiting FCC field agents very happy.

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