

A large change in the regulations of towers near AM stations has taken place. The FCC has released new rules on *Disturbance of AM broadcast station antenna patterns*. These are in 47 CFR Part 1, Subpart AA, § 1.30000 through § 1.30004 and released as [FCC 13-115](#). The published effective date is February 20, 2014. **These rules are now in effect.** A link to new rules here: [FCC Rules](#)

The big change in these rules is that only a *Significant Modification* (defined below) to a tower will require action. This means that collocation on towers that are not detuned will generally not require any AM coordination.

FCC licensees (Part 90 and others) who have not considered AM interference in the past must now do so when building or modifying a tower or collocating on a tower which is detuned.

A tower near an AM station can distort the broadcast pattern of that station, simply because the metal of the tower reradiates the AM signal. Such distortion can cause the AM station to interfere with other AM stations hundreds of miles away. This interference can be reduced or eliminated by adding equipment on the tower that *detunes* it so that reradiation is minimized.

Towers built or modified in the immediate vicinity of AM stations require action. The new rules apply to any tower or structure with antennas and all FCC licensees. This is a change in that previous rules applied, with slight variations, only to wireless carriers and broadcasters.

A clear set of criteria in the new rules indicates which sites require action and what that action is. The distance from the station and the height of the tower are used to determine if action is required, both based on the AM stations operating mode (Directional or Non-Directional) and wavelength (which is determined from the frequency of the station). The new distances are generally less than the existing ones and the height criteria are new. Also only *Significant Modifications* require action. A Significant Modification is a change to the height of the tower by a small fraction of the stations wavelength specified as 5 electrical degrees at the AM stations frequency or any change to a tower that is already detuned.

There is an exception to the distance / height rule. The FCC Audio Division has clarified that for a structure that is currently detuned for an AM station, regardless of its distance, the detuning must be maintained or a method of moments analysis must be conducted with shows the tower has no predicted adverse effect on the AM station.

When action is required the following must be completed:

- AM station notification of the action with required 30 day reply and comment period by the AM station (after receipt of the notification)
- An analysis of potential AM pattern interference through a Method of Moments (MoM) computer modeling that includes the AM station and the tower in the case of new build sites or existing towers undergoing significant modification (height change).
- detuning of the structure new structure if indicated by the analysis or inspection and adjustment of existing detuning equipment if the structure is already so equipped.

Field measurements may be used in place of the MoM analysis to determine interference for directional stations, licensed without a MoM Proof of Performance.

One provision in the new rules allows for AM stations to file a complaint with the Commission and owner of an existing tower believed to be causing interference. The submission must include a showing of interference using MoM analysis or field measurements. If necessary the FCC shall direct the tower to be detuned. There is a one year window for these filings. New towers built outside the coordination distance may also similarly be challenged if the AM station can show interference. These challenges must be made within two years of tower construction or modification.

AM tower collocation regulations are also moved to this rule section. Specific actions are outlined for adding antennas to an existing AM broadcast tower.

The notification process is very clearly defined and Sitesafe will continue to provide notification services that meet the new requirements. The time and content of notification are listed in the new rules and the construction must not begin until acceptance of the notification by the station or thirty days has elapsed from the time the station receives notification. An expedited notification may be requested but work is not allowed to start before either thirty days has elapsed or the station has provided written concurrence.

A notification exception can be made *in the event of an emergency situation involving essential public services, public health, or public welfare*. In these cases the station must be notified within five days and any issues of pattern distortion must be coordinated with the station promptly.

Sitesafe provides free screening (<http://am.sitesafe.com>) for any project using the new rules criteria and we provide analysis and mitigation services.

If you have further questions, please contact Sitesafe.

Matthew J Butcher, PE
VP Engineering & Development
matt@sitesafe.com

703 558 0502

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