

TOWER COMPLIANCE AND FCC OET-65 RFR GUIDELINES

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TOWER UPDATE AND NEW ASR SIGNAGE REQUIREMENTS

The most significant changes that are under consideration with respect to tower marking and lighting occurred with the recent Congressional passing, and Presidential signing of, H.R. 636 – a/k/a/ the “FAA Extension, Safety and Security Act of 2016.” The primary purpose of this new legislation is to ensure the continuity of the FAA’s operations for another year (through September 30, 2017). However, from the perspective of the owner of a tower that is between 50 feet and 200 feet tall, the potential impact is much more significant. At present, towers under 200 feet (unless they are very closely located near an airport or flight path) are typically not required to be marked to satisfy FAA standards. However, within Section 2110 of this legislation is a little-publicized provision that could have significant repercussions for small tower owners, particularly (and surprisingly) in rural areas. This is because Section 2110 requires the FAA to issue regulations within the next year requiring “covered towers” to be “clearly marked.” So, what’s a covered tower? According to the new legislation, such a structure would be:

- a. is self-standing or supported by guy wires and ground anchors;
- b. is 10 feet or less in diameter at the ground-base, excluding concrete footing;
- c. is at least 50 feet above ground level and not more than 200 feet at its highest point;
- d. has accessory facilities on which an antenna, sensor, camera, meteorological instrument, or other equipment is mounted; or
- e. is located outside the boundaries of an incorporated city or town, on land that is undeveloped or used for agricultural purposes.

By Congressional definition, “undeveloped” land is area over which the FAA Administrator determines low-flying aircraft are operated on a routine basis, such as forested areas with predominant tree cover under 200 feet and pasture and range land.” Expressly excluded are structures that:

- a. are adjacent to a house, barn, electrical utility station or other building within an area immediately surrounding a home;
- b. supports electric utility transmission or distribution lines;
- c. is a wind-powered electrical generator with a rotor blade radius that exceeds six feet; or
- d. is a streetlight erected or maintained by a Federal, State, Local or Tribal entity.

Although these exclusions somewhat narrow the span of towers that will be subject to the new requirements, there are still many currently unmarked towers that would fall under the new marking guidelines, depending on what the final definition of those requirements would be. It is believed that the inclusion of the proposed requirements for marking of

smaller towers is a result of some prodding by agricultural or other low-altitude pilots (i.e., crop dusters, emergency medical helicopters, firefighting aircraft, etc.) that are concerned about the dangers posed by some of these structures.

The bottom line here is that the FAA has some work ahead of itself to evaluate the likelihood of actual aeronautical problems associated with smaller unmarked towers and then provide adequate definitions of the terms described above and the structures that will fall under those definitions.

It is believed that the FAA will initiate a rulemaking proceeding soon to determine how best to adopt and enforce these new regulations. Given the potential monetary impact to small tower owners, though, we encourage those that may be affected by this new legislation to participate in the FAA's rulemaking proceeding once it is underway.

RECENT BACKGROUND INFORMATION ON STRUCTURE MARKING

In FCC Report and Order in WT Docket No. 10-88, the FCC "modernized" many of the rules and regulations pertaining to the construction, marking and lighting of tower structures governed under Part 17 of the Rules. These new rules and regulations become effective on October 24, 2014. One of the most important changes is a clarification for all practical purposes of the requirements associated with the display of the FCC's Antenna Structure Registration ("ASR") information at the tower site. Essentially, the rule has been modified to specify that the required ASR information must be displayed on a permanent sign "in a conspicuous place readily visible near the base of the antenna structure", and the sign must be made of weather resistant material and of sufficient size to be easily seen at the base of the antenna structure. In the case of a tower that is enclosed by a fence, then the sign is to be posted at the "closest publicly available access point", which would imply on the fence itself or access gate. If there are multiple entrance gates, the ASR information must be posted at each one.

ANSI COMPLIANCE

As many licensees may be aware, the standards and requirements with respect to addressing the aspect of the license renewal process regarding potential radio frequency exposure have remained stable since the FCC released OET Bulletin 65 in 1997. Today, a certification concerning compliance with the current FCC OET-65 guidelines for stations that have had no "material change" in its RF environment since the last CP grant or license renewal is the extent of the compliance review required. That said, it is the responsibility of the applicant to ensure that this certification is truthful and accurate, and a basic understanding of what the current FCC OET-65 guidelines are is important for this purpose.

By way of some background information, ANSI standard C95.1-1992 was published in conjunction with the Institute of Electrical and Electronic Engineers (IEEE) in 1991. This standard differs from the previous 1982 standard in three main areas: (1) much stronger language is used to define maximum permissible exposure ("MPE") levels, (2) it distinguishes between "controlled" and "uncontrolled" environments and, (3) standards have been added for currents induced by low frequency sources of energy. Most important to broadcasters, the maximum allowable percent of potential exposure in uncontrolled environments is 5 times more stringent than the previous standard. The most current standard was adopted in October 1997 by the FCC, FCC OET Bulletin No. 65 (Edition 97-01). The FCC Guidelines define an "uncontrolled environment" as one in which there is no knowledge of the potential for exposure. Conversely, a "controlled environment" acknowledges this potential as a likely condition of employment. In this case, steps should be taken to implement a safety program regarding any potential exposure.

Initially, these guidelines were thought to pose a potential problem in terms of compliance for a number of stations. These included higher powered facilities, those where the antenna is located on the roof of a building (as on a campus) and stations that just barely met the earlier, less restrictive requirements. However it has been realized that in such cases, if a showing of compliance cannot be made by utilizing FCC provided "worst case" calculations (which are essentially those that are calculated using the RF worksheet), employing actual radiation characteristics or the taking of RF measurements will often demonstrate compliance with the FCC guidelines.

Additionally, all stations should have in place a worker safety program which contains at least some of the following elements:

1. Utilize RF measurement equipment which meets current industry standards.
2. Identify and control potentially hazardous areas and have a competent individual in the field periodically assess for compliance.
3. Employ warning signs, barricades and floor markings to reduce the likelihood of inadvertent exposure around high exposure areas.
4. Take appropriate precautions during routine tower repairs and maintenance.
5. Take periodic measurements to document continued compliance.

Essentially (and in particular in multi user sites where an individual licensee's transmitter may produce in excess of 5% of the power density exposure limit), the Commission considers it to be the shared responsibility of all such licensees to cooperate with each other to ensure that workers and the public are protected from RF exposure in excess of the guidelines. All broadcast stations located at multi user sites must certify in their license renewal RF compliance responses that it either individually complies with the ANSI exposure guidelines or that it has a worker policy and procedures plan in place to protect both workers on the tower or the public by turning off, or reducing power, in concert with other users at the site.

It should be noted that in June, 2013, the FCC initiated Notice of Inquiry and a Proposed Rulemaking for the purpose of reassessing the current RF exposure limits and standards, in addition to an overall review to ensure efficient, practical and consistent application of evaluation procedures and compliance with its guidelines. This reflected in part publication of ANSI C95.1-2005. As the wheels of bureaucracy turn slowly, there has been no definitive momentum to date with respect to a modification or change to the existing criteria that has been in effect for the better part of 20 years for broadcasters. However, should a more stringent standard for RF frequency exposure ultimately be adopted, your facilities, be they full service or secondary, such as a translator, would need to be evaluated accordingly to ensure that compliance with any new standard(s) will be met.

The bottom line with respect to the FCC's current stance regarding RF compliance certification is that applicants may now rely on other media bureau related grants at the site to infer that the cumulative RF radiation is within OET guidelines. However, this may not take into account the contributory effect of any cellular, microwave or wireless antennas that may also be present and not subject to regulation under the Media Bureau.

The renewal application compliance certification does imply that there has been no "material change in the site", described as including the appearance of a new structure (i.e., apartment building or other dwelling), removal of fencing, etc., or any other non-regulated change which could adversely impact uncontrolled human exposure. However, it bears repeating that applicants are certifying that the overall RF exposure at the site is safe and meets whatever the current FCC OET-65 guidelines may be.

If there is any question as to whether any of your station's certifications are accurate, or truthful, or any of the other items covered in this memo, the applicant should confer with their consultant and/or FCC counsel.

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