

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of
LKCM RADIO LICENSES, L.P.
Involuntary Modification of License
of Station KFWR(FM)
Jacksboro, Texas
File No. BLH-20130110AFG
Facility ID No. 31062

ORDER

Adopted: August 5, 2015

Released: August 5, 2015

By the Chief, Audio Division, Media Bureau:

I. INTRODUCTION AND BACKGROUND

1. Before the Audio Division are pleadings filed in response to the Order to Show Cause released March 23, 2015, proposing involuntary modification of the license of station KFWR(FM), Jacksboro, Texas ("KFWR"), to correct unauthorized overpowered and directional operation by that station, and directing LKCM Radio Licenses, L.P. ("LKCM"), the KFWR licensee, to show cause within 30 days why the KFWR license should not be modified.

2. In the OSC, we concluded that LKCM had constructed KFWR's antenna facilities in such a way as to cause the KFWR signal substantially to exceed the 100 kW limit on effective radiated power in any direction, as specified for a Class C0 station in Section 73.211 of the Commission's Rules.

3. In the OSC Response, LKCM criticizes the Commission for failing to establish a "bright line" criterion for deviation from non-directionality in side-mounted FM antennas.

1 Involuntary Modification of License of Station KWFR(FM), Jacksboro, TX, Order to Show Cause, 30 FCC Red 2625 (MB 2015) ("OSC").

2 File No. BLH-20130110AFG, granted February 21, 2013.

3 47 C.F.R. § 73.211.

4 OSC, 30 FCC Red at 2634.

5 OSC Response at 3-6.

exception to the Commission's reliance on *Ettlinger Broadcasting Corp.*,⁶ as well as *Criteria for Licensing of FM Broadcast Antenna Systems*,⁷ in support of the conclusions reached in the *OSC*.⁸ LKCM argues that the *OSC* is unprecedented and breaks three decades of Commission silence on the subject of nondirectional antennas, claiming that the Commission has offered no guidance on the subject nor has it published any standards or specifications for side-mounted antennas.⁹ LKCM reiterates its earlier contention that, in the real world, antenna installations are not truly omnidirectional and always show some degree of deviation from a circular pattern, citing as evidence its own study of antenna patterns.¹⁰ LKCM claims that it previously provided evidence that all antennas exceed the 3 dB threshold set forth in *Ettlinger*, and suggests that if the Commission were to set standards for antenna optimization it should do so in a notice and comment rulemaking proceeding rather than in individual cases.¹¹ It further opines that enforcement of the *OSC* would "create a standardless environment, whereby some distortion is acceptable and some is not."¹²

4. As an alternative to involuntary license modification, LKCM offers to re-mount the KFWR antenna in a "wholly conventional fashion," by removing the parasitic antenna elements and mounting pole and re-installing the antenna on the tower as a "standard-mounted catalog non-directional antenna," with no documentation or prior study of the antenna's performance.¹³ It proposes to accomplish this using best engineering practices, and without removing the Lambda tower section.¹⁴ LKCM claims that this procedure "will place KFWR in the same position as any other FM station using a side-mounted non-directional antenna."¹⁵

5. Lake, in its Comments, alleges that because the LKCM OSC Response was styled as a response rather than as a "protest," under Section 1.87(g)(1) of the Rules,¹⁶ LKCM has effectively consented to the involuntary license modification.¹⁷ Lake further cites Section 1.87(d), which requires that any protest of a proposed license modification must conform to the requirements of Section 309 of the Communications Act,¹⁸ and asserts that there is no "specific allegation of fact sufficient to show that

⁶ Memorandum Opinion and Order, 53 R.R.2d 635 (1983) ("*Ettlinger*").

⁷ Public Notice, FCC 84-437 (rel. Sept. 14, 1984) ("*FM Antenna Public Notice*").

⁸ OSC Response at 4-5.

⁹ *Id.* at 4.

¹⁰ *Id.* at 4-6.

¹¹ *Id.* at 5-6.

¹² *Id.* at 6. LKCM goes on to present a "parade of horrors" that would result if we were to issue further orders to show cause similar to the *OSC* here, including (1) defeating the efficiency rationale underlying 47 C.F.R. § 73.207's spacing requirements; (2) providing "persons with malicious intent" with a tool by which to extort money or other concessions from broadcasters operating side-mounted, nondirectional antennas; and (3) ignoring the fact that "many factors beyond a licensee's control" can result in distortion of a nondirectional antenna pattern. OSC Response at 6. As discussed below, however, our action here is based on extreme violations of two Commission Rules, and the remedy proposed, far from being "beyond a licensee's control," involves nothing more than reducing transmitter output power ("TPO").

¹³ *Id.* at 7.

¹⁴ LKCM states that requiring the removal of the Lambda section would be a "purely punitive" act, which would cost the licensee about \$71,000 and would not make "any tangible difference in the performance of the antenna." *Id.* at 8.

¹⁵ *Id.* at 9.

¹⁶ 47 C.F.R. § 1.87(g)(1).

¹⁷ Comments at 1-2.

¹⁸ 47 C.F.R. § 1.87(d), citing 47 U.S.C. § 309.

the modification proposed by the [OSC] is contrary to the public interest.”¹⁹ Lake next contends that LKCM’s OSC Response “consists of insular denial and audacious and vague speculation about the impact” of the OSC, and thus should be disregarded in its entirety.²⁰ Lake further points out that LKCM does not “deny or controvert” the findings in the OSC that: (1) the maximum antenna gain is 4.389 dB horizontally polarized and 4.386 dB vertically polarized above 100 kW (20 dB); (2) KFWR is radiating 262.4 kW horizontally polarized, and 274.5 kW vertically polarized, into the maximum lobe of its directional antenna, and (3) the maximum-to-minimum ratio of the KFWR antenna is 19.18 dB, which is greater than the 15 dB permitted for a licensed directional antenna.²¹

6. In its Comment Response, LKCM dismisses Lake’s contention that, because LKCM did not label its OSC Response a “protest,” it has waived its right to object to the involuntary modification of its license.²² LKCM further objects to Lake’s assertions that the Commission should act immediately to modify the KFWR license rather than allowing LKCM’s proposed modifications, stating that Lake “does not dispute” that those modifications will address the concerns stated in the OSC.²³ In its Reply Comments, Lake responds that it “most assuredly does dispute” LKCM’s proposed modification,²⁴ and further states that, contrary to LKCM’s earlier assertion, Lake’s station KCKL has suffered the “deleterious effects of KFWR’s unlawful ‘superpower’ operation . . . now into its third year.”²⁵

II. DISCUSSION

7. We reject Lake’s procedural argument that LKCM’s OSC Response should not be considered a “protest” to the OSC. Section 1.87 does not require that the pleading be labeled a “protest,” and substantively there is no question that the OSC Response attempts to show cause why the KFWR license should not be modified. Moreover, the OSC Response is attested by LKCM’s president, and therefore meets the requirements of Section 309(d)(1) of the Communications Act. There is thus no procedural impediment to considering LKCM’s pleadings.

8. That said, we also reject LKCM’s arguments in opposition to the OSC, as well as its suggested alternative modification. It is important to note that, as Lake emphasizes, LKCM does not contest our factual findings regarding the technical parameters of its operation; there is thus no dispute that KFWR radiates over two and one half times its authorized ERP along the maximum lobe of its antenna, or that the maximum-to-minimum ratio of the KFWR antenna exceeds 19 dB. Absent any factual dispute, then, LKCM’s argument against modification can be distilled to two main points: (1) everybody does it, i.e., every side-mounted nondirectional FM station violates the Rules; and (2) the Commission has not pursued other violators. As for point (1), LKCM argues only that there is no such thing as a perfectly circular pattern from a side-mounted nondirectional FM antenna, a fact the Commission has long recognized.²⁶ LKCM declares in its OSC Response that “*all* non-directional antennas, including typical off-the-shelf, non-directional antennas sold by leading manufacturers, exceed” the maximum allowable ERP in the main lobe.²⁷ In fact, this statement is accurate only if one assumes, as

¹⁹ Comments at 2. *See* 47 U.S.C. § 309(d)(1).

²⁰ Comments at 2.

²¹ *Id.* at 3.

²² Comment Response at 1-2.

²³ *Id.* at 2-3.

²⁴ Reply Comments at 1.

²⁵ *Id.* at 2.

²⁶ OSC, 30 FCC Rcd at 2630; *FM Antenna Public Notice*; *Ettlinger*, 53 R.R.2d at 637 n.4.

²⁷ OSC Response at 5 (emphasis in original), citing Statement of Clarence M. Beverage, Communications Technologies, Inc., Attachment A to LKCM’s September 2, 2014, Response to Lake (“Beverage Statement”).

has LKCM, a “reference ERP” of 100 kW.²⁸ Under this assumption, the maximum lobes of each antenna examined can radiate more than 100 kW. The flaw in this analysis is that, as used by LKCM, the term “reference ERP” does not refer to the 100 kW limit for a Class C0 station set forth in Section 73.211(b) of the Rules.²⁹ Rather, it refers to an “average ERP” theory that LKCM asserted, and we rejected, in the *OSC*.³⁰ Specifically, LKCM claimed that KFWR is entitled to an average ERP of 100 kW across its antenna pattern, and if the power radiated along some azimuths is less than 100 kW then, in LKCM’s view, it may radiate more than 100 kW along other azimuths. This is somewhat akin to a property owner asserting that she may build an addition to her home extending 50 feet onto a neighbor’s property, because the other side of her house lies more than 50 feet from the nearest adjacent property line. The problem is not that circular radiation patterns do not exist in the real world. The problem is that LKCM not only fails to contain the KFWR signal within the maximum 100 kW radiation envelope set forth in Section 73.211, but has aggressively broken that envelope in violation of our Rules.³¹

9. Those rule violations lead us to LKCM’s point (2). LKCM criticizes at some length the Commission’s “lack of enforcement” of the standards enunciated in *Ettlinger* and the *FM Antenna Public Notice*, as well as our alleged failure to articulate a “bright line standard” defining exactly the point at which a nondirectional antenna becomes impermissibly directional.³² In fact the “bright line” is already established in our Rules and in cases such as *Ettlinger*. It is enough to establish, as we did in the *OSC*, that the KFWR antenna violates not one, but two of our Rules: Section 73.211,³³ in that the power radiated in the main lobe is almost three times that authorized; and Section 73.316(b)(1),³⁴ which establishes a 15 dB limit for the maximum-to-minimum ratio of a *directional* antenna, a value KFWR’s “nondirectional” installation exceeds by over 4 dB. LKCM, again, does not dispute these factual findings, and while it devotes considerable effort to distinguishing the facts of *Ettlinger*, it cannot dispute the principal holding of that case, namely that “[i]rrespective of whether a directional or nondirectional pattern has been proposed, the maximum radiation for the particular class of station cannot be exceeded along any azimuth.”³⁵ Moreover, the fact that we have not yet had occasion to elaborate on the case law or the Rules in this particular context, or to seek modification of another station’s nominally nondirectional antenna for excessive radiation along a maximum lobe, is of no moment when presented with undisputed rule violations, especially violations of this magnitude. While LKCM complains that there may be hundreds or thousands of similar non-rule-compliant installations that have escaped Commission notice,³⁶ this does not justify KFWR’s extra-legal operation. Unlike the hypothetical rule violations that LKCM assumes must exist, the rule violations here have been amply documented.³⁷

²⁸ See Beverage Statement at 4-6.

²⁹ 47 C.F.R. § 73.211(b).

³⁰ *OSC*, 30 FCC Rcd at 2630-31.

³¹ See *id.* at 2631-33.

³² *OSC* Response at 3-6.

³³ 47 C.F.R. § 73.211.

³⁴ 47 C.F.R. § 73.316(b)(1).

³⁵ *Ettlinger*, 53 R.R.2d at 636, citing 47 C.F.R. § 73.211.

³⁶ See, e.g., *OSC* Response at 2 (“Will the Bureau investigate and potentially reclassify the hundreds or thousands of other stations with side-mounted FM antennas?”).

³⁷ We also disregard LKCM’s suggestion, in the Introduction and Summary to its *OSC* Response, that the modification proposed in the *OSC* would come “at the cost of a substantial decrease in coverage,” and that this would occur “in the absence of any proven harmful interference caused by KFWR’s existing operations.” *OSC* Response at 2. Lake contends that KCKL has experienced interference from the main lobe of KFWR’s signal, which is aimed in KCKL’s direction (and, as noted in the *OSC*, away from KFWR’s community of license). See *OSC*, 30 FCC Rcd at 2626-27 (Lake complaint included allegations of interference to KCKL); Reply Comments at

(continued....)

10. We further reject LKCM's proposed alternatives. The obvious thrust of these proposals is to maintain the *status quo*, or something approaching it, while seeking to ameliorate to some extent the rule violations discussed above and in the *OSC*.³⁸ LKCM offers a compromise that it believes will reduce some of the effects of KFWR's operation on KCKL, but with no way of evaluating whether it has succeeded, and that stops short of bringing KFWR's operation into complete compliance with the Rules. Adopting LKCM's suggested approach would likely only result in additional delay in correcting the rule violations, and would ultimately cause LKCM to incur substantial costs with uncertain results. The most immediate and direct way to address LKCM's rule violations, and bring KFWR into compliance, is the method called for in the *OSC*. We therefore will adopt the involuntary license modifications set forth in the *OSC*, specifically, to reduce KFWR's TPO so that the maximum ERP is not exceeded along any azimuth, and to license KFWR as directional.³⁹

III. CONCLUSION / ORDERING CLAUSES

11. LKCM has not established any grounds justifying deviation from the involuntary KFWR license modifications proposed in the *OSC*. The involuntary license modifications adopted herein provide immediate relief to Lake's station KCKL, bring KFWR into compliance with the Commission's Rules, and accomplish these goals without requiring LKCM to go to the expense of modifying or replacing its antenna or supporting tower.

12. Therefore, IT IS ORDERED that the license of station KFWR(FM), File No. BLH-20130110AFG, IS MODIFIED AS SET FORTH IN ATTACHMENT A, effective as of the release date of this Order. IT IS FURTHER ORDERED that LKCM immediately reduce KFWR's TPO to 9.1 kW.⁴⁰ IT IS FURTHER ORDERED that the KFWR license SHALL BE REISSUED to reflect the modified TPO, to change the designation of KFWR's antenna system to "directional," and to specify the composite antenna pattern relative field values as set forth in Attachment A. IT IS FURTHER ORDERED that the Media Bureau's Consolidated Data Base System shall be modified in accordance with this Order.

FEDERAL COMMUNICATIONS COMMISSION

Peter H. Doyle
Chief, Audio Division
Media Bureau

ATTACHMENT A

(Continued from previous page) _____

2. Under our Rules, Lake has a reasonable expectation that KFWR will not radiate more than 100 kW ERP in any direction (47 C.F.R. § 73.211), and to the extent that KFWR loses signal coverage by being required to implement rule-compliant operation, it will be to areas KFWR was never authorized to serve.

³⁸ See *supra* para. 4. LKCM proposes (1) to remove the vertically polarized parasitic elements and the mounting pole (notwithstanding LKCM's prior statements that the parasitic elements were added to *reduce* the projected vertically polarized component – see Supplemental Exhibit 4 to LKCM's December 4, 2013, Response to Complaint ("These [vertical] parasitic elements are not reflectors, but rather they are directors being used to reduce the vertical polarized gain to the east.")); and (2) to make antenna modifications using "industry standard practices" without requiring measurements (thus providing no way to discern the true effects of the antenna modifications on the radiation pattern).

³⁹ This does not preclude LKCM from filing a construction permit application for nondirectional facilities with a modified antenna system at some future date.

⁴⁰ The changed station parameters are listed in Attachment A.

Modified Station Parameters for License BLH-20130110AFG

Composite antenna pattern relative field values (entered into the Commission's CDBS database), where a relative field value of 1.0 is equal to 100 kW ERP:

0°	0.531
10°	0.506
20°	0.470
30°	0.459
40°	0.483
50°	0.567
60°	0.664
70°	0.779
80°	0.875
90°	0.954
100°	0.996
105°	1.000
110°	0.996
120°	0.937
130°	0.935
140°	0.869
150°	0.772
160°	0.670
170°	0.579
180°	0.555
190°	0.549
200°	0.543
210°	0.513
220°	0.453
230°	0.368
240°	0.308
250°	0.290
260°	0.386
270°	0.465
280°	0.513
290°	0.537
300°	0.531
310°	0.513
320°	0.513
330°	0.519
340°	0.543
350°	0.555

Transmitter output power: 9.1 kW

Antenna Type: Directional