

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

In the Matter of)	
)	
Radio One Licenses, LLC)	File No. EB-02-DV-439
Licensee of FM Radio Station KKBT)	NAL/Acct. No. 200432100002
Los Angeles, California)	FRN 0006541486
Facility ID # 70038)	
)	
Infinity Broadcasting Operations, Inc.)	NAL/Acct. No. 200432100003
Licensee of FM Radio Station KRTH-FM)	FRN 0003476074
Los Angeles, California)	
Facility ID # 28631)	
)	
Telemundo of Los Angeles License Corporation)	NAL/Acct. No. 200432100004
Licensee of TV Station KWHY-TV)	FRN 0004294179
Los Angeles, California)	
Facility ID # 26231)	

MEMORANDUM OPINION AND ORDER

Adopted: November 28, 2006

Released: December 1, 2006

By the Commission:

I. INTRODUCTION

1. In this *Memorandum Opinion and Order* (“*Order*”), we deny petitions for reconsideration filed by Infinity Broadcasting Operations, Inc. (“Infinity”),¹ licensee of FM radio station KRTH-FM, Telemundo of Los Angeles License Corporation (“Telemundo”),² licensee of TV station KWHY-TV, and Radio One Licenses, LLC (“Radio One”), licensee of FM radio station KKBT,³ all serving Los Angeles, California, (collectively “Mt. Wilson Licensees”)⁴ of a *Forfeiture Order* issued in this proceeding on December 10, 2004.⁵ The *Forfeiture Order* assessed monetary forfeitures of \$10,000 against each of the Mt. Wilson Licensees for willful and repeated violations of Section 1.1310 of the Commission’s Rules

¹ Infinity Broadcasting Operations, Inc., Petition for Reconsideration, dated January 10, 2005 (“Infinity Petition”).

² Telemundo of Los Angeles License Corporation, LLC Petition for Reconsideration, dated January 10, 2005 (“Telemundo Petition”).

³ Radio One Licenses, LLC, Petition for Reconsideration, dated January 10, 2005 (“Radio One Petition”).

⁴ Although AMFM Radio Licenses, LLC, licensee of KBIG-FM, which was a subject of the original Notice of Apparent Liability, paid its forfeiture, and filed no petition for reconsideration, it will also be included in the collective term “Mt. Wilson Licensees.”

⁵ *Radio One Licenses, LLC*, 19 FCC Rcd 23922 (2004) (“*Forfeiture Order*”).

(“Rules”)⁶ by failing to comply with radio frequency radiation (“RFR”) maximum permissible exposure (“MPE”) limits applicable to facilities, operations, or transmitters. In this *Order*, we consider the various issues raised in the Infinity, Telemundo and Radio One petitions, and for the reasons we set forth below we deny the petitions and affirm the Commission’s findings of liability, and the forfeiture amounts assessed, in the *Forfeiture Order*.

II. BACKGROUND

2. **The RFR Rules.** In 1996, the Commission amended its rules to adopt new guidelines and procedures for evaluating the environmental effects of RFR from FCC regulated transmitters.⁷ The Commission adopted maximum permissible exposure (“MPE”) limits for electric and magnetic field strength and power density for transmitters operating at frequencies from 300 kHz to 100 GHz.⁸ These MPE limits, which are set forth in Section 1.1310 of the Rules, include limits for “occupational/controlled” exposure and limits for “general population/uncontrolled” exposure.⁹ The occupational exposure limits apply in situations in which persons are exposed as a consequence of their employment, provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.¹⁰ The limits of occupational exposure also apply in situations where an individual is transient through a location where the occupational limits apply, provided that he or she is made aware of the potential for exposure. The more stringent general population or public exposure limits apply in situations in which the general public may be exposed, or in which persons exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.¹¹ Licensees can demonstrate compliance by restricting public access to areas where RFR exceeds the public MPE limits.¹²

3. The MPE limits specified in Table 1 of Section 1.1310 are used to evaluate the

⁶ 47 C.F.R. § 1.1310.

⁷ *Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, Report and Order*, ET Docket No. 93-62, 11 FCC Rcd 15123 (1996) (“*RF First Report and Order*”), recon. granted in part, *First Memorandum Opinion and Order*, 11 FCC Rcd 17512 (1996), recon. granted in part, *Second Memorandum Opinion and Order and Notice of Proposed Rulemaking*, 12 FCC Rcd 13494 (1997) (“*RF Second Memorandum Opinion and Order*”).

⁸ See 47 C.F.R. § 1.1310, Table 1. The MPE limits are generally based on recommended exposure guidelines published by the National Council on Radiation Protection and Measurements (“NCRP”) in “Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields,” NCRP Report No. 86, Sections 17.4.1, 17.4.1.1., 17.4.2, and 17.4.3 (1986). In the frequency range from 100 MHz to 1500 MHz, the MPE limits are also generally based on guidelines contained in the RF safety standard developed by the Institute of Electrical and Electronics Engineers, Inc. (“IEEE”) and adopted by the American National Standards Institute (“ANSI”) in Section 4.1 of “IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz,” ANSI/IEEE C95.1-1992 (1992).

⁹ Table 1 in Section 1.1310 of the Rules provides that the general population RFR maximum permissible exposure limit for a station operating in the frequency range of 30 MHz to 300 MHz is 0.200 mW/cm² and the general population RFR maximum permissible exposure limit for a station operating in the frequency range of 300 MHz to 1500 MHz is f/1500 mW/cm² which for station KWHY-TV operating on 512 - 518 MHz is 0.345 mW/cm².

¹⁰ 47 C.F.R. § 1.1310, Note 1 to Table 1.

¹¹ 47 C.F.R. § 1.1310, Note 2 to Table 1.

¹² See, for example, *OET Bulletin 65: “Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields”* (August 1997).

environmental impact of human exposure to RFR and apply to "...all facilities, operations and transmitters regulated by the Commission."¹³ Further, the FCC's rules require that if the MPE limits are exceeded in an accessible area due to the emissions of multiple transmitters, actions necessary to bring the area into compliance "are the shared responsibility of all licensees whose transmitters produce, at the area in question, power density levels that exceed 5% of the power density exposure limit applicable to their particular transmitter."¹⁴ The 5% threshold applies to the power density limit or to the square of electric or magnetic field strength limit.¹⁵ If the MPE limits are exceeded at an accessible area, all stations that produce a power density level exceeding 5% of the power density exposure limit applicable to its particular transmitter at that accessible area share responsibility to correct the problem.¹⁶ While we have urged owners of transmitter sites to allow applicants and licensees to take reasonable steps to comply with the Commission's RF Rules, the Commission has determined that responsibilities pertaining to RF electromagnetic fields belong with licensees and applicants, rather than with site owners.¹⁷

4. Broadcast stations that filed applications after October 15, 1997, for an initial construction permit, license, renewal or modification of an existing license were required to demonstrate compliance with the new RFR MPE limits, or to file an Environmental Assessment and undergo environmental review by Commission staff.¹⁸ In addition, all existing licensees, including all licensees at multiple transmitter sites, were required to come into compliance with the new RFR MPE limits by September 1, 2000, or to file an Environmental Assessment.¹⁹

5. **The Mount Wilson Inspection.** On July 11 and 12, 2002, agents from the FCC's Enforcement Bureau field offices conducted an inspection of the Mt. Wilson telecommunications and antenna farm site located northeast of downtown Los Angeles, California, off Highway 2, on Mt. Wilson (5710 ft.) in the San Gabriel Mountains. The main antenna farm, encircled by Video Road, was not fully fenced or gated. Agents were able to access the site without encountering protective fencing or warning signs on July 11, 2002, on three sides of the area and on two sides of the area on July 12, 2002. Nestled within the broadcast towers on Video Road is the Mt. Wilson United States Post Office (91023), which serves the Mt. Wilson area. Approximately 330 yards southeast from the United States Post Office is the entrance to the Mt. Wilson Observatory and Park, which receives thousands of visitors a year. Given the accessibility of the site by the general public, along with the dearth of warning signs, the RFR MPE limits

¹³ See 47 C.F.R. §§ 1.1307(b), 1.1307(b)(1), 1.1310.

¹⁴ *RF Second Memorandum Opinion and Order*, 12 FCC Rcd at 13520-21; 47 C.F.R. § 1.1307(b)(3).

¹⁵ *RF Second Memorandum Opinion and Order*, 12 FCC Rcd at 13524; 47 C.F.R. § 1.1307(b)(3). Power density is equal to the square of the electric field strength divided by the characteristic impedance of free space (377 ohms). Similarly, power density is equal to the square of the magnetic field strength times the characteristic impedance of free space. The power density is expressed in milliwatts per square centimeter. *RF Second Memorandum Opinion and Order*, 12 FCC Rcd at n.74.

¹⁶ *Id.* at 13520-21; 47 C.F.R. § 1.1307(b)(3).

¹⁷ *RF Second Memorandum Opinion and Order*, 12 FCC Rcd at 13522 – 13523; 47 C.F.R. § 1.1307(b)(3).

¹⁸ *RF Second Memorandum Opinion and Order*, 12 FCC Rcd at 13538; 47 C.F.R. § 1.1307(b).

¹⁹ *RF Second Memorandum Opinion and Order*, 12 FCC Rcd at 13540; 47 C.F.R. § 1.1307(b)(5). See also, *Public Notice*, Year 2000 Deadline for Compliance with Commission's Regulations Regarding Human Exposure to Radiofrequency Emissions (released Feb. 25, 2000); *Public Notice*, Erratum to February 25, 2000 Public Notice, 15 FCC Rcd 13600 (released April 27, 2000); *Public Notice*, Reminder of September 1, 2000, Deadline for Compliance with Regulations for Human Exposure to Radiofrequency Emissions, 15 FCC Rcd 18900 (released Aug. 24, 2000).

for “General Population/Uncontrolled Exposure” applied to any readings taken at the accessible areas.²⁰

6. The agents identified a 10 ft. by 100 ft. area on a driveway into the main antenna farm located off Video Road on July 11, 2002, that exceeded the FCC’s public MPE limits at ground level. The identified area on the driveway was only approximately 100 feet from the United States Post Office, accessible to the general public and not marked with any RFR warning signs. On July 11, 2002, agents made power density measurements throughout the identified area on the driveway that ranged from 152.5% to 197.5% of the public RFR MPE limit. Thus, conservatively, the RFR fields exceeded the MPE limits for the general population by over 50%.

7. After identifying and marking the area on the driveway exceeding the RFR MPE public limits, the agents observed a broken chain on the ground to one side of the entrance to the driveway, on top of a weathered and damaged “No Trespassing” sign. The agents noted that they, and the general public, were able to access the area without encountering protective fencing or warning signs on three sides of the area that exceeded the public RFR MPE limit. Just prior to the time the agents departed that area of the Mt. Wilson antenna farm on July 11, an engineer from one of the stations at the site repaired the chain, strung it across the driveway, and placed a RFR warning sign on the chain. Several broadcast station engineers familiar with the site admitted to FCC agents that the chain had not been attached for several days prior to the inspection on July 11 and most likely had been taken down by contractors working for licensees at the site.

8. On July 12, 2002, FCC agents, with the cooperation of all the broadcasters at the Mt. Wilson antenna farm, conducted additional measurements at the area marked and identified as exceeding the public RFR MPE limits.²¹ Although an engineer from one of the stations at the site repaired the chain with the RFR warning sign and strung it across the driveway, Commission agents, and the general public, including any members of the public exiting from the Post Office, were still able to access the area that exceeded the public RFR MPE from two sides without encountering protective fencing or warning signs. The agents marked a single spot in the middle of the approximately 10 feet by 100 feet area identified on July 11 as exceeding the MPE public limits and made RFR measurements with all stations transmitting to establish the overall power density level. The overall RFR power density measurement on the driveway was 160.5% of the MPE public limit with all stations in operation.²² Field agents then requested each licensee in the vicinity of the identified area to temporarily and sequentially power down its transmitter. Field agents made two spatially averaged RFR power density measurements while each broadcast station’s transmitter was powered off to determine the power density level produced by each transmitter

²⁰ See 47 C.F.R. § 1.1310, Table 1 (General population/uncontrolled limits apply in situations in which the general public may be exposed). “Members of the general public always fall under this category when exposure is not employment-related . . .” *RF First Report and Order*, 11 FCC Rcd 15123, 15139 (1996).

²¹ Agents contacted broadcast stations after the RFR measurements to arrange for On-Off testing on July 12, 2002.

²² Table 1 of Section 1.1310 specifies the applicable MPE limits in terms of power density (mW/cm^2) for FM and television broadcast station transmitters. The maximum power density levels permitted are frequency dependent. During the Mt. Wilson inspection, the FCC agents utilized a FCC owned, calibrated RF meter with a calibrated probe that measures the electric field from RF signals in the band 300 kHz to 40 GHz. The probe is a sensor designed to simultaneously measure the RF emissions of multiple transmitters on widely separated frequencies such as would occur at an antenna farm containing both FM broadcast stations and television stations and can be used to determine the total RF power level at a particular location. The probe’s frequency response curve is “shaped” to mimic the FCC MPE limits. The energy of the signals the probe detects are converted to a power density, then calculated as a percentage of the MPE limit for the appropriate frequency and added together. The results are displayed on the meter as a percentage of the MPE limit. See, generally, *OET Bulletin 65* at Section 3, “Measuring RF Fields.”

and to determine which transmitters were producing power density levels that exceeded 5% or more of its individual MPE limit at the identified area.²³

9. The on-air and off-air measurements indicated that four of the 21 stations within the vicinity were producing power density levels at significantly more than 5% of the public MPE limits applicable to their transmitter.²⁴ When KBIG-FM went off the air, the RF level decreased from 160.5% to 78.75% of the MPE public limit indicating that KBIG-FM was producing a power density level that was 81.75 % of the MPE limit for its particular transmitter. Based on these measurements and further calculations, the power density level produced by station KBIG-FM was 0.1635 mW/cm². Based upon similar procedures, FM station KKBT was producing a power density level that was 11% of the MPE limit for its particular transmitter (a power density of 0.022 mW/cm²), FM station KRTH-FM was producing a power density level that was 11.75% of the MPE limit for its particular transmitter (a power density of 0.0235 mW/cm²), and TV station KWHY-TV was producing a power density level that was 10.5% of the MPE limit for its particular transmitter (a power density of 0.036 mW/cm²) to the total RFR in the area identified as exceeding the public RFR MPE limits.²⁵

10. On September 3, 2003, a field agent conducted an inspection of the Mt. Wilson site and found that the Mt. Wilson Licensees had subsequently installed additional fencing and warning signs. However, the field agent discovered that a gate leading to one of the entrances to the site was standing open. It appeared that although the Mt. Wilson Licensees had installed additional fencing and warning signs, they failed to exercise due diligence in restricting access to all areas that exceeded the public MPE limits.

11. On October 22, 2003, the Commission issued a Notice of Apparent Liability for Forfeiture (“NAL”) to AMFM, Infinity, Telemundo, and Radio One for forfeitures in the amount of ten thousand dollars (\$10,000) each.²⁶ Also, given the September 3, 2003 inspection, the Commission directed each of the Mt. Wilson Licensees to file sworn statements describing its plans to ensure that the fences surrounding the area are shut and that the gates are locked. Each of the parties filed a response to the NAL on December 12, 2003. AMFM did not dispute the NAL and paid the forfeiture,²⁷ while Infinity, Telemundo, and Radio One all argued the proposed forfeitures should be reduced, dismissed or rescinded.

²³ Section 1.1307(b)(3) of the Rules states: “In general, when the guidelines specified in § 1.1310 are exceeded in an accessible area due to the emissions from multiple fixed transmitters, actions necessary to bring the area into compliance are the shared responsibility of all licensees whose transmitters produce, at the area in question, power density levels that exceed 5% of the power density exposure limit applicable to their particular transmitter. . . .” 47 C.F.R. § 1.1307(b)(3).

²⁴ Measurements were taken for each transmitter operating at the site, including auxiliary, analog and digital transmitters.

²⁵ The combined power density levels produced by the four stations listed in this NAL add up to 115% of the Commission’s MPE limits. The difference between the 115% produced by the four stations and the power density level measurements with all stations operational, 160.5%, is accounted for by the fact that there were 17 other stations that were not producing power density levels at significantly more than 5% of the public MPE limits, but did add to the overall power density level.

²⁶ *AMFM Radio Licenses, LLC*, 18 FCC Rcd 22769 (2003).

²⁷ AMFM raised no issues in its response but noted that the field agent testing occurred while KBIG-FM was operating from its auxiliary facility. AMFM states that “[w]hen KBIG-FM operates from its main antenna the total RFR level on the area is reduced such that it remains within public MPE limits.” AMFM Response at 1.

12. On December 10, 2004, the Commission released a *Forfeiture Order* assessing monetary forfeitures of \$10,000 against Infinity, Telemundo, and Radio One²⁸ for willful and repeated violations of Section 1.1310 of the Rules²⁹ by failing to comply with the Commission's RFR MPE limits applicable to facilities, operations, or transmitters.³⁰ The Commission also determined that the sworn statements submitted by Infinity, Telemundo and Radio One all indicated that the three licensees continued to misinterpret their responsibilities under the Commission's RFR Rules.³¹ The Commission cautioned that each of the four Mt. Wilson Licensees exceeded the five percent limit, and each must therefore share in the responsibility to bring the area into compliance and make the non-compliant area inaccessible to the public.³²

13. **Infinity.** Infinity seeks reconsideration arguing that the federal government owns the land on which the Mt. Wilson site sits and, as such, should have engaged in a collaborative effort with the licensees at the multi-user site to reduce the RFR emissions; and that the \$10,000 forfeiture amount should be apportioned among the violators according to each station's percentage contribution to the overall violation of the power density limits at the problematic location.

14. **Telemundo.** Telemundo seeks reconsideration arguing that no reliable evidence justifies sanctions against KWHY-TV; that the Commission disregarded the application of uncertainty factors in the measurements; that the Commission failed to adopt the uniform use of a reliable methodology for enforcing the RFR Rules; that the Commission incorrectly rejects Telemundo's own measurements; and that the Commission did not explain its preference for measurements over predictive calculations.

15. **Radio One.** Radio One seeks reconsideration arguing that the Commission did not explain why KKBT(FM) could be held liable while not revealing or explaining the measurement or liability of KHHT(FM), another Mt. Wilson station, which broadcasts from the same tower as KKBT(FM).³³

III. DISCUSSION

A. Background

16. Reconsideration is appropriate where the petitioner either demonstrates a material error or omission in the underlying order or raises additional facts or changed circumstances not known or not existing until after the petitioner's last opportunity to present such matters.³⁴ A petition for

²⁸ *Radio One Licenses, LLC*, 19 FCC Rcd 23922 (2004). AMFM Radio Licenses, LLC, licensee of KBIG-FM, had paid its forfeiture of \$10,000 after the issuance of the *NAL* and was, therefore, not named in the *Forfeiture Order*.

²⁹ 47 C.F.R. § 1.1310.

³⁰ 47 C.F.R. § 1.1307(b)(1).

³¹ In each of the sworn statements the relevant licensee indicated that when KBIG-FM decides to operate from its auxiliary transmitter, it will confirm that the driveway is secured. 19 FCC Rcd at 23936.

³² 47 C.F.R. § 1.1307(b)(3).

³³ AMFM Broadcasting Licenses, LLC, is the licensee of KHHT(FM).

³⁴ See 47 C.F.R. § 1.106(c); *EZ Sacramento, Inc.*, 15 FCC Rcd 18257, ¶ 2 (EB 2000), citing *WWIZ, Inc.*, 37 FCC 685, 686 (1964), *aff'd sub. nom. Lorain Journal Co. v. FCC*, 351 F.2d 824 (D.C. Cir. 1965), *cert. denied*, 383 U.S. 967 (1966).

reconsideration that reiterates arguments that were previously considered and rejected will be denied.³⁵

B. Infinity Petition

17. In its petition, Infinity states that it “affirms, but does not reiterate” arguments that were considered and rejected in the *Forfeiture Order*, specifically, that the federal government is the site owner of the Mt. Wilson site, and should be amenable to an inclusive, collaborative enforcement approach.³⁶ Infinity also argues that the \$10,000 forfeiture amount should be apportioned among the violators according to each station’s percentage contribution to the overall violation of power density limits at the problematic location.³⁷ All of these issues were raised and rejected in the *Forfeiture Order*,³⁸ and, therefore, we will not consider them anew here. We will, however, take this opportunity to reiterate our prior determination that “responsibilities pertaining to RF electromagnetic fields properly belong[] with our licensees and applicants, rather than with site owners.”³⁹ We also reiterate that it is the responsibility of the licensees on the site to engage in a collaborative approach to ensure that the public is not able to access areas which could exceed the public MPE limits.⁴⁰ The Commission has encouraged licensees to engage in such collaborations and to “notify the appropriate Commission licensing bureau if the operator of a co-located transmitter will not cooperate in addressing a non-compliance problem.”⁴¹ The Commission has also directed the staff to work with industry to address such questions as may arise.⁴² But our policy encouraging collaboration does not insulate licensees from enforcement action for violations.⁴³

18. Infinity raises for the first time two new reasons why it believes the forfeiture amount should be reduced. First, Infinity argues that the area of “excess RFR was temporary in nature.”⁴⁴ We disagree. We note that in the *Forfeiture Order*, the Commission determined that the violation was not only willful, but was repeated, because it occurred on two days, July 11, 2002 and July 12, 2002.⁴⁵ Infinity does not argue that the violation was not repeated nor does it explain why it believes that a public safety violation, such as producing RFR in excess of the public MPE limits for more than one day, requires a reduction in the forfeiture amount.

³⁵ *EZ Sacramento, Inc.*, 15 FCC Rcd at 18257, ¶ 2.

³⁶ Infinity Petition at 2 – 4.

³⁷ Infinity Petition at 4 – 5.

³⁸ See 19 FCC Rcd at 23928 - 23930.

³⁹ 19 FCC Rcd at 23929, citing *RF Second Memorandum Opinion and Order*, 12 FCC Rcd at 13522 (1997).

⁴⁰ 47 C.F.R. §§ 1.1307(b)(3), 1.1310 .

⁴¹ *RF Second Memorandum Opinion and Order*, 13 FCC Rcd at 13524.

⁴² *RF Second Memorandum Opinion and Order*, 13 FCC Rcd at 13521.

⁴³ As explained in the *Forfeiture Order*, “in neither the Rules nor the *RF Second Memorandum Opinion and Order*, does the Commission suggest that anything other than the ‘traditional enforcement model’ be used with respect to a licensee that has willfully and repeatedly violated the Commission’s Rules.” 19 FCC Rcd at 23929.

⁴⁴ Infinity Petition at 5.

⁴⁵ The term “repeated” as defined by the Act, means that the violation occurred “more than once, or, if such commission or omission is continuous, for more than one day.” 47 U.S.C. § 312(e)(2).

19. Infinity also argues that the forfeiture amount should be reduced because RFR measurements are inherently imprecise.⁴⁶ Infinity further asserts that the Commission's MPE limits are extremely conservative, with the public limit being five times more stringent than the occupational limit, and the excessive RFR levels at Mt. Wilson did not "come close" to the occupational limits.⁴⁷ The Commission determined in 1996 when it adopted the RFR Rules that different limits apply to public and occupational RFR MPE.⁴⁸ The occupational MPE limits apply where persons are exposed as a consequence of their employment, have been made fully aware of the potential for exposure, and can exercise control over their exposure. The more stringent public MPE limits, on the other hand, apply where the general public may be exposed or where persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.⁴⁹ We note that the Commission has assessed a minimum forfeiture of \$10,000 against every licensee that it has found has willfully and/or repeatedly violated the public RFR MPE limits.⁵⁰ Infinity offers no persuasive evidence or arguments why the Commission should now begin to devalue the public safety by discounting RFR violations that do not go on for a long period of time or do not include a violation of the occupational MPE limits. Moreover, this is not an appropriate forum to challenge the 1996 *RF First Report and Order*. Therefore, we reject these arguments.

C. Telemundo Petition

20. Telemundo argues that no reliable evidence justifies sanctions against KWHY, that the Commission disregarded the application of uncertainty factors in the measurements, and that the Commission failed to adopt the uniform use of a reliable methodology for enforcing the RFR Rules.⁵¹ We disagree. The methodology concerning the measurement procedure used by the agents is detailed above, as it has been in both the *NAL* and the *Forfeiture Order*.⁵² Also, as noted in the *NAL*, the agents utilized FCC-owned, calibrated RF meters with calibrated probes⁵³ and, as noted in the *Forfeiture Order*, for the particular meters and probes used, the manufacturer-specified deviations, *i.e.*, uncertainty factors, were applied to the measurements.⁵⁴ While we acknowledge that deviation in equipment and measurements creates uncertainties, there are techniques and methods that can reduce the uncertainty,

⁴⁶ We discuss the alleged imprecision in the measurements in ¶¶ 20 - 23, below.

⁴⁷ Infinity Petition at 5.

⁴⁸ *RF First Report and Order*, 11 FCC Rcd 15123, 15139 (1996).

⁴⁹ 11 FCC Rcd at 15139. Regarding the public MPE limits, the Commission noted that "members of the general public always fall under this category when exposure is not employment related, as is the case of residents in an area near a broadcast tower." 11 FCC Rcd 15139 – 15140.

⁵⁰ See, *e.g.*, *A-O Broadcasting Corporation*, 20 FCC Rcd 756 (2005).

⁵¹ Telemundo Petition at 6 – 8.

⁵² 18 FCC Rcd at 22771 – 22773; 19 FCC Rcd at 23923 – 23926.

⁵³ 18 FCC Rcd at 22772, n.17. For the July 11, 2002, measurements, agents used W&G EMR-300 meters and Type 25 probes ("W&G Meters") and Narda Model 8718 meters and Model 8722 probes ("Narda Meters"). When conducting the on-off tests and individual station measurements on July 12, 2002, the agents used the W&G Meters exclusively.

⁵⁴ 19 FCC Rcd at 23931, n.63. The manufacturer-specified uncertainty factors for the W&G Meters and the Narda Meters extend from +/- 0.5 dB to +/- 3 dB, depending on various factors, including, for example, the magnitude of the measurement, the frequency response, the isotropic deviation and the measurement methodology.

particularly when measuring high fields, including, for example, spatial averaging, multiple measurements and multiple devices, all of which the Commission staff employed during the Mt. Wilson investigation. Such procedures provide a reasonable basis for the assignment of liability under our RFR Rules.

21. Telemundo specifically questions the methodology used by the Commission staff to determine which of the licensees at the Mt. Wilson site exceeded the 5% contribution threshold. We will review the staff's actions in detail.⁵⁵ On July 11, 2002, the Commission inspected the Mt. Wilson site and proceeded to make several measurements using two different models of RFR meters and probes, in the 10 ft. by 100 ft. area described above. The staff made multiple four quadrant spatially averaged measurements throughout the area, to ensure that they obtained consistent, repeatable readings. All of the measurements throughout the identified area ranged from 152.5% to 197.5% of the public MPE.⁵⁶ Given the number of measurements made, the staff reasonably concluded that the RFR levels in the identified area exceeded the public MPE limits.

22. On July 12, 2002, the staff returned to the same identified area and, after making enough measurements to ensure that they obtained consistent, repeatable readings, the staff made two spatially averaged measurements over one spot within the identified area which resulted in an average measurement of 160.5%.⁵⁷ One by one, each of the licensees was asked to go off the air so that two spatially averaged measurements could be made at the spot. The licensees were informed that this was the method to be used, in order to conduct the tests in such a manner that would cause the least amount of economic harm to the stations. None objected, because taking individual measurements for each station would have required all of the stations to go off the air simultaneously. Then the staff would have had each station power on, alone, have measurements taken, and then power off. This procedure would have been repeated for each of the 21 stations involved and would have required, for the majority of the testing day, that all of the stations remain off the air. Instead, the staff ensured that each station remained off the air only for a small period of time, so that the two spatially averaged measurements could be made without that station transmitting. The difference between the baseline reading of 160.5% and the reading with each station off the air was then calculated. RFR measurements may vary from one moment to the next, which is why the staff makes multiple spatially averaged measurements and then averages those measurements. RFR meters and probes have uncertainty factors, which is why the staff applies an uncertainty factor to the difference between the baseline measurement and each station's off-the-air measurement to determine the range of each station's percentage contribution.⁵⁸

23. Telemundo argues that measurements can vary from five to ten percent at the same

⁵⁵ Telemundo also argues that no sanctions can be justified against KWHY because if a "measurement yields a 5, plus or minus 2, it is equally valid to argue that the 'real' measurement is 3 or 4 as it is to argue that the result is 5." Telemundo Petition at 6 – 7. If we accept this premise then we must add what Telemundo does not, which is that the measurement is just as likely to yield a 6 or 7. Uncertainty factors, whether assessed by the Commission staff, or Telemundo, also indicate an increase in the magnitude of the measurement. Unlike Telemundo, we cannot ignore the upper range because the purpose of the RFR Rules is "[t]o protect public health with respect to RF radiation from FCC-regulated transmitters" 11 FCC Rcd at 15184.

⁵⁶ For the July 11, 2002, measurements, the staff used W&G EMR-300 meters and Type 25 probes and Narda Model 8718 meters and Model 8722 probes. This was done to ensure consistency in the readings.

⁵⁷ When conducting the on-off tests and individual station measurements on July 12, 2002, the staff used W&G EMR-300 meters and Type 25 probes.

⁵⁸ See ¶ 24, below. According to the manufacturer specifications for the meter and probe used on July 12, 2002, the uncertainty factor for the range of 300 MHz to 1 GHz (the applicable range of frequencies for KWHY) is +/- 1 dB.

location under the same conditions, and, therefore, there is no reliable basis on which to claim KWHY exceeded the 5% contribution threshold.⁵⁹ We find that the staff took that fact into consideration, along with the appropriate uncertainty factors for the equipment used. Accepting Telemundo's formula would negate any potential liability for any but the largest contributors and run afoul of the requirement that RFR compliance is the shared responsibility of all licensees whose transmitters produce, at the area in question, power density levels that exceed 5% of the power density exposure limit applicable to their particular transmitter.⁶⁰ We also find that the techniques used, and calculations made, by the staff were reasonable and gave adequate consideration to measurement uncertainty while balancing public safety and the economic interests of the stations at the Mt. Wilson broadcast site.

24. Telemundo also argues that KWHY-TV should not be sanctioned because the Commission did not specify how it exercised its discretion in not pursuing claims against stations that did not significantly exceed the 5% threshold.⁶¹ Again, we disagree. As illustrated by the table below, all of the stations on Mt. Wilson whose measurements exceeded the 5% contribution level, when taking into account the relevant uncertainty factors for the equipment used, were held liable by the Commission in the Forfeiture Order.⁶²

Station	Power Density	Percentage Contribution	-3 dB Uncertainty	+3 dB Uncertainty
KBIG-FM	0.1635 mW/cm ²	81.75%	40.88%	163.50%
KRTH-FM	0.0235 mW/cm ²	11.75%	5.88%	23.50%
KKBT(FM)	0.0220 mW/cm ²	11.00%	5.50%	22.00%
KWHY-TV	0.0360 mW/cm ²	10.50%	5.25%	21.00%

When deciding which of the broadcast licensees on Mt. Wilson should be held liable for violating the public RFR MPE limits, the Commission determined that only those licensees whose individual contributions always exceeded 5%, when the manufacturer-specified deviations and uncertainty factors

⁵⁹ Telemundo Petition at 7 – 8.

⁶⁰ 47 C.F.R. § 1.1307(b)(3). We note that when the Commission amended the RFR Rules in 1997, it specifically considered the problems of uncertainty and accuracy in measurements when it raised the “responsibility threshold above which licensees at multiple transmitter locations must share responsibility for addressing RF exposure non-compliance problems, from 1% to 5%.” *RF Second Memorandum Opinion and Order*, 12 FCC Rcd at 13520. The Commission also determined that raising the threshold to 10% could “lead to the creation of areas of non-compliance” and therefore determined that “a 5% threshold represents a reasonable and supportable compromise.” *Id* at 13520 – 13521.

⁶¹ Telemundo Petition at 5 – 9.

⁶² The relevant uncertainty factors applied on July 12, 2002, for the on-off testing of individual stations, totaled +/- 3 dB. We note that even Telemundo acknowledges that a +/- 3 dB uncertainty factor is a “good rule of thumb when making measurements in multi-signal environments with this type of equipment.” Telemundo Petition, Exhibit 1 at 10.

were applied, would be held liable.⁶³ Even when factoring in the largest relevant uncertainty factors, KWHY-TV continued to be a greater than 5% contributor to the public RFR MPE limit violations.

25. Telemundo also argues that the Commission incorrectly rejected Telemundo's December 1, 2003, narrowband measurements.⁶⁴ Telemundo claims that these measurements are more accurate than the measurements made by the field agents and that these measurements show KWHY's contribution to have been approximately 2.3% of the public limit and that it is immaterial that the Telemundo measurements were made 17 months subsequent to the Commission agents' measurement.⁶⁵ Telemundo states that their narrowband measurements measure only a single RF emitter, and that the presence or absence of other RF emitters, should not affect narrowband results. Telemundo does not indicate what uncertainty factor, if any, it applied to its narrowband measurements.

26. As the Commission stated in the *Forfeiture Order*, we do not dispute the accuracy of Telemundo's narrowband measurements as they relate to KWHY-TV's RFR emissions on December 1, 2003, but we cannot accept them as proof that the field agents' July 2002 measurements were made in error. The Mt. Wilson site is home to hundreds of licensees and the area is constantly changing, not merely by the presence of different antennas and transmitters but even by the different constructions of towers or other reflective material which could impact a measurement. Although, Telemundo states that it "had not changed operating parameters between July 2002 and December 1, 2003," the date its narrowband measurements were made, and we have no reason to dispute that the operating parameters for KWHY-TV did not change between July 2002 and December 2003, Telemundo does not and cannot assert that the operational parameters of all of the RF emitters and reflectors and re-radiators at the Mount Wilson site were the same on December 1, 2003, and July 11 and 12, 2002. We note that even from day to day, signal levels can be affected by a variety of factors, from the initial electrical power supplied to the transmitter, to the aging of the electronics within a transmitter, to the internal environmental effects on an antenna. Thus, while Telemundo's narrowband measurements may be accurate for December 1, 2003, they do not establish that the Commission's measurements on July 11 and 12, 2002 were not accurate. For these reasons, we cannot accept Telemundo's narrowband measurements as a refutation of the agents' July 2002 measurements.

27. Telemundo further argues that the Commission did not explain its preference for measurements over predictive calculations.⁶⁶ Telemundo alleges that the data underlying the *Forfeiture*

⁶³ As stated in the *Forfeiture Order*, the Commission is a regulatory agency with broad prosecutorial discretion in enforcement proceedings. See, *In re: Notices of Apparent Liability for Forfeitures of Emery Telephone*, 15 FCC Rcd 7181, 7186 (1999). The courts have found that, as a general matter, the Commission "is best positioned to weigh the benefits of pursuing an adjudication against the costs to the agency and the likelihood of success." 19 FCC Rcd at 23922, citing *New York State Dept. of Law v. F.C.C.*, 984 F.2d 1209, 1213 (D.C. Cir. 1993).

⁶⁴ Telemundo Petition at 9 – 11.

⁶⁵ Telemundo also inexplicably states that the Commission "is not, as a rule, troubled by lapses of time with respect to RF radiation measurements: for example the agents apparently did not re-measure the hotspot on July 12, 2002 or upon a return to the site in September 2003." Telemundo Petition at 10 - 11. As stated in the *NAL*, the *Forfeiture Order*, and in this *Order* at ¶¶ 8 - 9, above, the agents performed measurements at the hotspot on July 12, 2002. Also, as stated in the *NAL*, the *Forfeiture Order*, and this *Order* at ¶ 10, above, the September 2003 inspection focused on the Mt. Wilson Licensees' compliance with restricting access to the site, which, as noted above, they had failed to do. Consequently, Telemundo's next allegation, that the Commission "cannot have it both ways; it cannot reject out-of-hand Telemundo's measurements for being on a subsequent day and then accept its own measurements regardless of the day at issue" is baffling. Telemundo Petition at 11.

⁶⁶ Telemundo also argues that the Commission failed to acknowledge that Telemundo offered measurements as well as calculations. Telemundo Petition at 11. To the extent Telemundo is referring to its narrowband measurements,

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Order “has been far from perfect” and that to accept that data “despite the clear conflict with the Commission’s own predictive methodology . . . is unjustifiable.”⁶⁷ We have discussed in detail above the reasonableness of our measurement procedures. We also note that calculations and modeling do not take into account reflection and re-radiation.

28. Telemundo acknowledges that the Commission stated in the *Forfeiture Order*, that at a multi-user site, such as an antenna farm, actual measurements of the RF field may be necessary to determine whether there is a potential for human exposure in excess of the MPE limits specified by the FCC.⁶⁸ An antenna farm site such as Mt. Wilson is inevitably filled with metal towers, buildings and fences that calculations or modeling cannot accurately take into account. We therefore reject Telemundo’s argument and affirm our finding in the *Forfeiture Order*, that when taking enforcement action, in the case of multi-emitter sites, actual measurements will be preferred over calculations and modeling.

29. Finally, Telemundo states that neither KWHY-TV “nor Telemundo should be subject to any obligation to monitor RF radiation compliance by other users of Mount Wilson, and that the [KWHY-TV’s] previously submitted statement that it will do so should be made nonbinding and dismissed.”⁶⁹ We again caution the Mt. Wilson Licensees that each has been found to have exceeded the five percent limit, and that each shares in the responsibility to bring the area into compliance and to make the non-compliant area inaccessible to the public.⁷⁰

D. Radio One Petition

30. Radio One argues that the Commission appears to have confused KKBT(FM)’s measurements with those of KHHT(FM).⁷¹ Radio One states that KHHT(FM) broadcasts at an effective

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we note that the Commission considered them, and rejected them as not refuting the agents’ measurements, in the *Forfeiture Order*, 19 FCC Rcd at 23932.

⁶⁷ Telemundo Petition at 11. We are mindful of the adage “let not the perfect be the enemy of the good.” *Federal-State Joint Board on Universal Service*, 16 FCC Rcd 11244, 11248 (2001); *see also*, *FCC v. MCI*, 627 F.2d 322, 341-342 (D.C. Cir. 1980) (admonishing the Commission that “[t]he best must not become the enemy of the good, as it does when the FCC delays making any determination while pursuing the perfect tariff.”) We refuse to refrain from enforcing our RFR Rules because uncertainty exists in the RFR measurement data. As detailed above, the appropriate uncertainty factors have been taken into account to ensure fair proceedings for all licensees.

⁶⁸ OET Bulletin 65 at 44. This is consistent with Commission’s rules and precedent preferring measurements to calculations in certain cases. *See e.g.*, 47 C.F.R. § 73.153 (in determination of interference, groundwave field strength measurements will take precedence over theoretical values); *In re Applications of Benjamin F. Thomas and Roy A. Grove D.B.A. Greencastle Broadcasting Co.*, 16 FCC 2d 923 (1969) (measurement data indicating no prohibited overlap are to be preferred over the calculations based on figure M-3 conductivities).

⁶⁹ Telemundo Petition at 3.

⁷⁰ 47 C.F.R. § 1.1307(b)(3).

⁷¹ Radio One also argues that the Commission misinterpreted a 1997 RF amendment that was filed for KKBT(FM) (then KIBB) and KHHT(FM) (then KKBT) renewals which, as Radio One acknowledges, stated that “[a]ll KKBT and KIBB antennas contribute greater than 10 uW/cm² or greater than 5% of 0.2 mW/cm² and therefore are considered as contributors to electromagnetic fields in non-controlled areas.” Radio One argues that a data table in the document actually shows that the now KKBT(FM) main antenna’s RF level was not greater than the 10 μW/cm² threshold and therefore not a contributor. While we accept Radio One’s assertion that the 1997 RF Amendment is internally inconsistent and its probative value diminished, we note that the Commission cited to the document to

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radiated power (“ERP”) of 42 kW, approximately eight times as great as KKBT(FM)’s ERP of 5.4 kW;⁷² that KHHT(FM)’s antenna is located on the same tower as KKBT(FM)’s, but is 29 meters closer to the ground than KKBT(FM)’s antenna;⁷³ and that the theoretical estimated power density level of KHHT(FM) is 20 times greater than the level for KKBT(FM).⁷⁴ Therefore, Radio One argues that without providing the comparative RFR results for KHHT(FM), the Commission “fails to explain the improbable result of the field tests.”⁷⁵

31. On July 12, 2002, KHHT(FM) was measured to have a power density of 0.0110 mW/cm². In terms of contribution level, KHHT(FM) was found to have contributed 5.5%. Applying the manufacturer-specified uncertainty factors discussed above, KHHT(FM) was found to have contributed between 2.75% and 11.00%. Because KHHT(FM), unlike KKBT(FM), and the other stations operated by the Mt. Wilson Licensees, was not contributing more than 5% after the uncertainty factor was attributed, the Commission decided not to propose liability for KHHT(FM). As the Commission explained in the *Forfeiture Order*, the agents did not confuse the KHHT(FM) and KKBT(FM) transmitters. The agents systematically contacted the licensees for the transmitters and then requested each licensee in the vicinity of the identified area to temporarily and sequentially power down its transmitter. An agent accompanied each engineer as he or she “powered down” the appropriate transmitter to ensure that no errors were made concerning which transmitter was being measured. Separate measurements were made for KKBT(FM) and KHHT(FM) regardless of the fact the two stations broadcast from the same tower.⁷⁶

32. Further, a station’s ERP and antenna height are not the sole factors that influence the RFR emitted from a station, particularly when measured at ground level. Other factors include antenna design, beam tilt, polarization, directionality, number of bays, spacing of bays and phasing. As we have also previously noted, objects in the area of the antenna, such as other towers and fences, can also affect the measured RFR at ground level. Indeed, another station operating at a greater power and a lower height than KKBT(FM) also had lower RFR contributions than KKBT(FM).⁷⁷ As previously noted,

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demonstrate that Radio One, as the licensee of KKBT(FM) had notice that the most recent renewal filing for KKBT(FM) (then KIBB), at the time of the Mt. Wilson inspection, contained an RF amendment that named KKBT(FM) (then KIBB) as a contributor. The 1997 RF Amendment also states that measurements showed that a “couple of ‘hot spots’ were found against a fence along the access road just east of the KKBT [] site and one fifty foot long by six feet wide strip was found in the center of the road just south of the site in front of the Allcom building.” See File No. BRH-970730ZC, filed July 30, 1997. The RF Amendment was filed on December 22, 1997.

⁷² Radio One Petition at 4.

⁷³ Radio One states that KKBT(FM) has a 49 meter antenna radiation center above ground level in comparison to KKBT(FM)’s 78 meter antenna radiation center above ground level. Radio One Petition at 4.

⁷⁴ Radio One states that according to its calculation the theoretical estimated power density level for KHHT(FM) is 0.584 mW/cm² while the level for KKBT is 0.029 mW/cm². Radio One Petition at 5.

⁷⁵ Radio One Petition at 5.

⁷⁶ 19 FCC Rcd at 23934.

⁷⁷ For example, KIIS-FM, whose transmitter was also located on the same tower, was found to have contributed 3.5% of the public MPE for its transmitter. According to Commission records, KIIS-FM is licensed to operate at 34° 13’ 36” N latitude and 118° 03’ 57” W longitude. KIIS-FM is licensed to operate an 8 kW ERP directional antenna with a 66 meter antenna radiation center above ground level. KHHT-FM is licensed to operate at 34° 13’ 36” N latitude and 118° 03’ 57” W longitude. KKBT(FM) is licensed to operate at 34° 13’ 37” N latitude and 118° 03’ 58” W longitude.

theoretical analysis at a communications site with multiple transmitters and towers cannot account for or predict all of the unique factors that affect the signals and resultant power density that occurs at the site. Consequently, we reject Radio One's arguments.

E. Conclusion

33. We have considered the arguments raised by the Mt. Wilson Licensees in each of the petitions and find that none of them persuade us to reduce or cancel any of the forfeitures assessed against Infinity, Telemundo and Radio One. We, therefore, deny the petitions.

IV. ORDERING CLAUSES

34. **ACCORDINGLY, IT IS ORDERED** that, pursuant to Section 405 of the Communications Act of 1934, as amended ("Act")⁷⁸ and Section 1.106 of the Commission's Rules,⁷⁹ Infinity Broadcasting Operations, Inc.'s petition for reconsideration, Telemundo of Los Angeles License Corporation's petition for reconsideration, and Radio One Licenses, LLC's petition for reconsideration of the *Forfeiture Order* **ARE DENIED** and the *Forfeiture Order* **IS AFFIRMED**.

35. Payment of the forfeiture shall be made in the manner provided for in Section 1.80 of the Rules within 30 days of the release of this *Order*. If the forfeiture is not paid within the period specified, the case may be referred to the Department of Justice for collection pursuant to Section 504(a) of the Act.⁸⁰ Payment of the forfeiture must be made by check or similar instrument, payable to the order of the Federal Communications Commission. The payment must include the NAL/Acct. No. and FRN No. referenced above. Payment by check or money order may be mailed to Federal Communications Commission, P.O. Box 358340, Pittsburgh, PA 15251-8340. Payment by overnight mail may be sent to Mellon Bank /LB 358340, 500 Ross Street, Room 1540670, Pittsburgh, PA 15251. Payment by wire transfer may be made to ABA Number 043000261, receiving bank Mellon Bank, and account number 911- 6106. Requests for full payment under an installment plan should be sent to: Associate Managing Director – Financial Operations, Room 1A625, 445 12th Street, S.W., Washington, D.C. 20554.⁸¹

⁷⁸ 47 U.S.C. § 405.

⁷⁹ 47 C.F.R. § 1.106.

⁸⁰ 47 U.S.C. § 504(a).

⁸¹ See 47 C.F.R. § 1.1914.

36. **IT IS FURTHER ORDERED THAT** a copy of this **ORDER** shall be sent by First Class and Certified Mail, Return Receipt Requested, to Radio One Licenses, LLC, 5900 Princess Garden Parkway, 7th Floor, Lanham, MD 20706; Dennis P. Corbett, Esquire, Counsel to Infinity Broadcasting Operations, Inc., Leventhal, Senter & Lerman, PLLC, 2000 K Street, NW, Suite 600, Washington, DC 20006; and Telemundo of Los Angeles License Corporation – NBC Telemundo License Co., 1299 Pennsylvania Avenue, NW, 11th Floor, Washington, DC 20004.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary