



KAOI-FM's licensed effective radiated power from 100 kW to 55 kW.<sup>4</sup> As part of the application, Visionary indicated that it was unable to certify that "the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments."<sup>5</sup> Visionary attached a "detailed explanation of the RFR situation at the KAOI-FM site" as part of the application. In the explanation, Visionary stated that the current antenna system, operating at 100 kW, at a height of 14 meters above ground, "produces a maximum field intensity of 4614.37 microwatts per squared [sic] centimeter at a distance of 2.8 meters from the base of the tower."<sup>6</sup>

3. On September 7, 2004, a Honolulu agent spoke to the President of Visionary, and requested that KAOI-FM be made available for inspection on September 8, 2004. The Honolulu agent was later informed by the station engineer that KAOI-FM was running at reduced power due to transmitter technical problems. On October 14, 2004, the Honolulu Office issued a Letter of Inquiry ("LOI") to Visionary regarding reduced power operations throughout calendar year 2004. Visionary's October 26, 2004 response delineated a series of eight separate instances between January and October of 2004 when equipment issues resulted in reduced power operations. In a supplemental November 2, 2004 response to the LOI, Visionary stated that the station had been operating at full licensed power levels since October 29, 2004, and pledged to notify the Honolulu Office of any further problems.

4. On October 20, 2004, Martha Vockrodt-Moran, along with the D.T. Fleming Arboretum, filed a complaint with the Commission's Enforcement Bureau requesting that the Bureau "order KAOI-FM to cease transmitting because its operations pose a significant threat to health and safety."<sup>7</sup> Specifically, the complaint alleged that "for the past fourteen years, [Visionary] has operated KAOI in violation of the RF exposure rules" and that the property adjacent to the KAOI transmitter site "is regularly used by Arboretum workers, residents, children, campers and hikers."<sup>8</sup> Visionary filed a Motion to Dismiss the Complaint on December 14, 2004.<sup>9</sup> Vockrodt-Moran and the Arboretum filed a response to the Motion to Dismiss on December 23, 2004.<sup>10</sup>

5. Honolulu agents inspected the KAOI-FM facility on November 17, 2004, accompanied by KAOI-FM station engineers, as well as a broadcast consultant. At the time of the inspection, KAOI-FM was authorized to operate with 100 kW ERP. The KAOI-FM antenna system is a Jampro JHPC-8, eight bay circular "Double V" antenna, mounted with the radiation center 14 meters above ground level on a 25 meter wooden pole at the edge of a cinder cone overlooking a steep hilltop. A roadway passes within 30 feet of the KAOI-FM antenna. The roadway is gated on both entrances to the antenna. There is a locked gate on the access road north of the transmitter site that bars routine public vehicular access to

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October 18, 1995, John Detz, President, KAOI Radio Group, wrote that "item 9 d [radiation center above ground] on Form 302-FM, page 4 as corrected should read the accurate 25 meters RCAGL." Letter of John Detz to Dan Fontaine, Federal Communications Commission, October 18, 1995.

<sup>4</sup> July 2004 Application, Section III-B.

<sup>5</sup> July 2004 Application, Item 17.

<sup>6</sup> July 2004 Application, Engineering Statement at p. 3. 4614.37 microwatts per square centimeter is equivalent to 4.614 mW/cm<sup>2</sup>.

<sup>7</sup> Complaint of D.T. Fleming Arboretum and Martha Vockrodt-Moran, filed October 20, 2004 ("Complaint").

<sup>8</sup> Complaint at 5.

<sup>9</sup> Visionary Related Entertainment LLC Motion to Dismiss Complaint, filed December 14, 2004 ("Motion to Dismiss").

<sup>10</sup> Response of D.T. Fleming Arboretum and Martha Vockrodt-Moran, filed December 23, 2004 ("Response").

the entire area. A portion of the D.T. Fleming Arboretum property, Ulupalakua, Maui, is adjacent to the site. A second gate, bordering on Arboretum property and limiting access between the transmitter site area and the Arboretum property, is approximately 35 to 42 feet south of the antenna. A cell tower with multiple antennas is located approximately 100 feet east of the KAOI-FM antenna site. Although vehicular access to the antenna site is restricted by means of a locked gate, pedestrian access is not restricted, and there is a private residence past the locked gate.

6. The agents observed no physical barrier restricting public access to the antenna support pole, and no RFR warning signs posted. The KAOI-FM transmitter was running at a power output of 96,732 watts, a representative level in view of the mountaintop commercial power fluctuations. The agents employed a personal RF monitor to initially identify a seventy foot long, twenty foot wide area in front of the transmitter building with potential high RFR levels.<sup>11</sup> Measurements were conducted at four locations using a calibrated meter. The measurements employed a spatial averaging measurement technique, where measurements in four quadrants are averaged to give a representative reading for each location.<sup>12</sup> The Commission's RFR public MPE limit for a transmitter operating in the 30 MHz to 300 MHz range, such as the KAOI-FM transmitter, is 0.2 mW/cm<sup>2</sup>.<sup>13</sup> The agents found that the public RFR MPE limits were significantly exceeded within 3 feet of the pole, and that the public RFR MPE limits continued to be exceeded in a twenty foot by ten foot rectangular area in front of the antenna support pole.<sup>14</sup> The agents' actual measurements corroborated Visionary's calculated assessment that RFR at the site exceeded the public MPE.<sup>15</sup> The agents repeated the measurements at the same four designated locations with the transmitter running at a reduced output power of 56,350 watts. The agents' measurements indicated RFR levels still exceeded the public RFR MPE limits in the area of the immediate vicinity of the support pole. Again, these measurements corroborated Visionary's calculated assessment of RFR above the public MPE limit with KAOI-FM's power reduced to 55 kW.<sup>16</sup> At the conclusion of the inspection, the station engineers reduced the transmitter power and stated that the station would operate at a reduced power level until the RFR issue was resolved. The station engineers informed the agents that the station intended to install fencing to restrict public access,<sup>17</sup> and also intended to submit a request for special temporary authority ("STA") to operate at reduced power levels.<sup>18</sup>

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<sup>11</sup> The personal RF monitor LED lit continually throughout this area, and the unit emitted an audible warning, indicating the RFR in the area likely exceeded the public RFR MPE.

<sup>12</sup> See, *Radio One Licensees, LLC*, Memorandum Opinion and Order, FCC 06-173, 2006 WL 3472471 (rel. December 1, 2006) at paras. 21 - 24.

<sup>13</sup> 47 C.F.R. § 1.1310.

<sup>14</sup> None of the area identified by the agents as an area with potentially high RF fields crossed onto the adjacent D.T. Fleming Arboretum property.

<sup>15</sup> July 2004 Application, Engineering Statement at p. 3.

<sup>16</sup> Visionary Related Entertainment LLC Renewal Application, BRH-20051003CFK, Oct. 3, 2005, Exhibit 13. "At 55 kilowatts effective radiated power, this antenna will produce a calculated maximum field intensity level of 2537.9.6 microwatts per centimeter at a distance of 2.8 meters distant from the base of the tower. . . ."

<sup>17</sup> In the Motion to Dismiss, filed December 14, 2004, Visionary notes that its engineers met with the Honolulu agents on November 17, 2004, to take RFR measurements and that Visionary is "constructing a four foot fence extending out from the tower site as an added buffer, which construction should be completed shortly." Motion to Dismiss at 4. On January 17, 2005, Visionary notified the Commission's Honolulu Office that they had "constructed a fence at the base of the tower that complies with the full Class C power level at the currently licensed allocation." Letter of Visionary Related Entertainment to Federal Communications Commission, Honolulu Office, January 17, 2005.

<sup>18</sup> Visionary did file an STA application, on February 18, 2005, which was granted on March 9, 2005. See File No. BSTA-20050218ACN. An extension of the STA, filed September 9, 2005, was granted November 14, 2006. See File

7. On February 4, 2005, the Honolulu Office issued the *NAL* in the amount of \$10,000 to Visionary, finding that Visionary had apparently willfully and repeatedly failed to comply with the Commission's RFR MPE limits applicable to the KAOI-FM transmitters. The Honolulu Office also directed Visionary to file a sworn statement describing: 1) what, if any, steps it took between July, 2004, and November, 2004, to ensure compliance with the Commission's RFR Rules at the KAOI-FM transmitter site; 2) what, if any, steps it has taken since the Honolulu agents' inspection in November, 2004, to ensure compliance with the Commission's RFR Rules at the site; and 3) its current plan to ensure compliance with the Commission's RFR Rules at the site.<sup>19</sup> In the *NAL*, the Honolulu Office also dismissed the Complaints files by Martha Vockrodt-Moran and the Arboretum. Visionary filed a response to the *NAL* ("*Response*") on March 1, 2005, along with the required sworn statement. In its *Response*, Visionary does not dispute the measurements made by the Honolulu agents. Instead, Visionary argues that it did not willfully violate the Commission's RFR rules, and that it believed, in good faith, its site was in a remote non-accessible area with adequate warning signs.

### III. DISCUSSION

8. The proposed forfeiture amount in this case was assessed in accordance with Section 503(b) of the Act,<sup>20</sup> Section 1.80 of the Rules,<sup>21</sup> and *The Commission's Forfeiture Policy Statement and Amendment of Section 1.80 of the Rules to Incorporate the Forfeiture Guidelines*.<sup>22</sup> In examining Visionary's response, Section 503(b) of the Act requires that the Commission take into account the nature, circumstances, extent and gravity of the violation and, with respect to the violator, the degree of culpability, any history of prior offenses, ability to pay, and other such matters as justice may require.<sup>23</sup>

9. In 1996, the Commission amended its rules to adopt new guidelines and procedures for evaluating the environmental effects of RFR from FCC regulated facilities, operations or transmitters.<sup>24</sup> The Commission adopted MPE limits for electric and magnetic field strength and power density for facilities, operations or transmitters operating at frequencies from 300 kHz to 100 GHz.<sup>25</sup> Section 1.1310 of the Rules requires licensees to comply with RFR exposure limits.<sup>26</sup> Table 1 in Section 1.1310 of the Rules provides that the general population/uncontrolled ("public") RFR maximum permissible exposure limit for a station operating in the frequency range of 30 MHz to 300 MHz is 0.2 mW/cm<sup>2</sup> and the occupational/controlled RFR maximum permissible exposure limit in this frequency range is 1 mW/cm<sup>2</sup>.

10. Visionary's opposition to the *NAL* is based on two assertions. First, Visionary argues that the area where the agents measured RFR in excess of the Commission's MPE limits for public exposure

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No. BESTA-20050909AEF.

<sup>19</sup> *NAL* at ¶ 17.

<sup>20</sup> 47 U.S.C. § 503(b).

<sup>21</sup> 47 C.F.R. § 1.80.

<sup>22</sup> 12 FCC Rcd 17087 (1997), recon. denied, 15 FCC Rcd 303 (1999).

<sup>23</sup> 47 U.S.C. § 503(b)(2)(D).

<sup>24</sup> *Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, Report and Order*, ET Docket No. 93-62, 11 FCC Rcd 15123 (1996), 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) ("*Guidelines*").

<sup>25</sup> See 47 C.F.R. § 1.1310, Table 1.

<sup>26</sup> 47 C.F.R. § 1.1310.

was not in fact an area accessible to the public, but accessible only to trespassers, and had adequate warning signs. Second, Visionary argues that having determined that the area was not publicly accessible, Visionary proceeded in good faith and did not willfully violate the Commission's RFR rules.<sup>27</sup> We will discuss these assertions in turn.

11. The Honolulu agents determined that the public RFR limits applied to the KAOI-FM transmitter site.<sup>28</sup> Visionary asserts in its *Response* that the area where the KAOI-FM site is located is remote and inaccessible and that it always treated the site as remote. Visionary does not explicitly assert that the occupational RFR limits apply, but that is the implication drawn from the arguments in its *Response*. Specifically, Visionary states that the KAOI-FM transmitter has operated from the same site and antenna height since the 1970s, that the antenna is predicted to create RFR fields at ground level at the base of the antenna of 4.614 mW/cm<sup>2</sup>, that in the past engineers and workers on the site have reduced the operating power to a safe level to allow maintenance to be performed, that the transmitter site is on a private cattle ranch, and that the public is banned from the ranch. Visionary also states in its *Response* that the work area within the adjoining building to the tower contains the requisite sign for station workers that the RF level be lowered when performing any work in the area, and that a sign outside the transmitter building indicates the danger of RF radiation. Visionary also states that to reach the transmitter site, a person would have to trespass and climb fences.

12. 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.<sup>29</sup> The limits for 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.<sup>30</sup> The Commission's RFR rules require licensees and permittees to abide by the more stringent "general population/uncontrolled" MPE limits, in situations in which 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.<sup>31</sup> When the Commission first promulgated these rules in 1996, it noted that "members of the general public always fall under this [general population/uncontrolled] category when exposure is not employment related, as is the case of residents in an area near a broadcast tower."<sup>32</sup> The Commission's Office of Engineering and Technology ("OET") recommends that applicants for broadcast stations take into account, when determining their compliance with the Commission's RF rules, whether "[h]igh RF levels are produced at ground level in an area which could reasonably be expected to be used by the public (including trespassers)."<sup>33</sup>

13. As described above, although the land where the KAOI-FM antenna structure was

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<sup>27</sup> Visionary also asserts that the instant investigation was instigated by a competitor who has "lost every challenge to [Visionary] on the local land use and permit arena . . ." *Response* at 2. We note that that the Honolulu agents investigated the site based on informal complaints by the operator of the D.T. Fleming Arboretum, whose stated concern, in various communications with Commission staff, was the safety of the users of the Arboretum.

<sup>28</sup> *NAL* at 5-6.

<sup>29</sup> 47 C.F.R. § 1.1310, Note 1 to Table 1.

<sup>30</sup> *Id.*

<sup>31</sup> 47 C.F.R. § 1.1310, Note 2 to Table 1. *See also, Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, Report and Order*, ET Docket No. 93-62, 11 FCC Rcd 15123, 15139 (1996).

<sup>32</sup> 11 FCC Rcd 15139 – 15140.

<sup>33</sup> *OET Bulletin 65: "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields"* (1997) ("*OET Bulletin 65*") at 83.

located was private, the Honolulu agents determined that trespassers were able to access the site, a fact that Visionary acknowledges. While Visionary's description, that the site was located in a remote, rural area, on a private ranch behind a locked gate, may be accurate, the Honolulu agents investigation of the area showed that the locked gate impeded vehicular traffic, not pedestrian traffic. Further, Visionary's own description of the property states that a fence lies between the ranch property and the Arboretum, and that the KAOI-FM transmitter was only 30 feet from this fence.<sup>34</sup> We find that while the site was on private property, it was neither so remote nor so well controlled as to be inaccessible to the public. Indeed, with the Arboretum so close, along with roads through the property, and a cell tower also on the property, we find the antenna site was in an area accessible to the public, including trespassers. Thus, we conclude that the Honolulu agents correctly determined that the public RFR MPE limits apply.

14. Compliance with the public RFR MPE limits can be achieved in different ways, depending on the particulars of the site. In *OET Bulletin 65*, the Commission's OET gave guidance to Commission licensees concerning controlling exposure to RF fields. When dealing with compliance with the Commission's public MPE limit, the OET stated that:

Restricting access is usually the simplest means of controlling exposure to areas where high RF levels may be present. Methods of doing this include fencing and posting such areas or locking out unauthorized persons in areas, such as rooftop locations, where this is practical. There may be situations where RF levels may exceed the MPE limits for the general public in remote areas, such as mountain tops, that could conceivably be accessible but are not likely to be visited by the public. In such cases, common sense should dictate how compliance is to be achieved. If the area of concern is properly marked by appropriate warning signs, fencing or the erection of other permanent barriers may not be necessary.<sup>35</sup>

15. Visionary states that a work area within the building adjacent to the tower contained a sign for station workers instructing them to lower the RF level before performing any work in the area, and that a sign posted outside the transmitter building specifically indicated the danger of RFR.<sup>36</sup> The Honolulu agents however found no RFR warning signs posted near the area of concern which exceeded the public RFR MPE limits. As the Commission recently determined, in remote areas where physical barriers do not exist, the burden is on the licensee to ensure that the area of concern is plainly and clearly marked with RFR warning signs so that members of the public do not access areas of RFR in excess of the MPE limits.<sup>37</sup>

16. The Honolulu agents found no RFR warning signs posted that were visible in the area of concern where RFR significantly exceeded the public MPE limits. Visionary knew high RFR fields existed at ground level at the site. By Visionary's own admission, operation of KAOI-FM with 100 kW of power on an antenna mounted with the radiation center at only 14 meters above ground, produced levels of RFR exposure at ground level that greatly exceeded the maximum permissible exposure limits for members of the public. And, by Visionary's own admission, it operated KAOI-FM with these facilities for many years. We note that even if we had accepted Visionary's argument that the occupational limits applied to this site, appropriate signage is critical to ensure that persons entering the area of high RFR have knowledge and ability to control their exposure. Again, no such signage existed in the area of concern. Based on the totality of the facts, we find that the Honolulu agents appropriately

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<sup>34</sup> We note that Visionary states that it completed construction of a fence at a 20 foot distance from the base of the KAOI-FM tower on or about January 17, 2005.

<sup>35</sup> *OET Bulletin 65* at 53 (footnotes omitted).

<sup>36</sup> *Response* at 4. Visionary does not state when the warning sign was posted. *See Response* at 4 n. 3.

<sup>37</sup> *See Americom Las Vegas Limited Partnership* Memorandum Opinion and Order, FCC 06-174, 2006 WL 3472472 (rel. December 1, 2006) at para. 12.

applied the public RFR MPE limit to the KAOI-FM site, and that Visionary failed to properly mark the area where RFR exceeded the public MPE limits with appropriate warning signs until after the FCC's inspection.<sup>38</sup>

17. We next consider Visionary's contention that it did not willfully violate the Commission's rules. As defined in the Act, "[t]he term 'willful', when used with reference to the commission or omission of any act, means the conscious and deliberate commission or omission of such act, irrespective of any intent to violate any provision of this Act or any rule or regulation of the Commission authorized by this Act...."<sup>39</sup> The Commission's interpretation of "willful" does not require licensee intent to engage in a violation.<sup>40</sup> Visionary does not allege that it did not know that the KAOI-FM transmitter was producing RFR in excess of 0.2 mW/cm<sup>2</sup>. Its own application predicted a maximum field intensity of 4.6 mW/cm<sup>2</sup>, or 2400% of the general public MPE limit. Visionary also does not dispute the measurements made by the Honolulu agents during their November 17, 2004 investigation, which showed RFR levels greatly exceeding the general public limit within the immediate vicinity of the transmitter. Because Visionary was aware of the RFR limits, and continued to operate the KAOI-FM transmitter such that the RFR produced at ground level continued to exceed the Commission's public RFR MPE limits, yet failed to take appropriate steps to control exposure to high RF fields in the area around the base of the antenna, including failure to display any RFR warning signs in the area of concern, we find that Visionary willfully violated Section 1.1310 of the Rules.

18. We have examined Visionary's response to the *NAL* pursuant to the statutory factors above, and in conjunction with the *Forfeiture Policy Statement*. As a result of our review, we conclude that Visionary willfully and repeatedly violated Section 1.1310. Considering the entire record and the factors listed above, we find that neither reduction or cancellation of the proposed \$10,000 forfeiture is warranted.

#### IV. ORDERING CLAUSES

19. **ACCORDINGLY, IT IS ORDERED** that, pursuant to Section 503(b) of the Communications Act of 1934, as amended ("Act"), and Sections 0.111, 0.311 and 1.80(f)(4) of the Commission's Rules, Visionary Related Entertainment, L.L.C. **IS LIABLE FOR A MONETARY FORFEITURE** in the amount of \$10,000 for willfully and repeatedly violating Section 1.1310 of the Rules.<sup>41</sup>

20. 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.<sup>42</sup> 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

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<sup>38</sup> *Radio X Broadcasting Corporation* Memorandum Opinion and Order, FCC 06-151, 2006 WL 2986546 (rel. October 17, 2006) (a forfeiture reduction for good faith efforts is not warranted where the subject does not take concrete steps to remedy a violation until after a field inspection).

<sup>39</sup> See Section 312(f)(1) of the Act, 47 U.S.C. § 312(f)(1), which applies to violations for which forfeitures are assessed under Section 503(b) of the Act. *Southern California Broadcasting Co.*, 6 FCC Rcd 4387 (1991).

<sup>40</sup> *Southern California Broadcasting Co.*, 6 FCC Rcd 4387 at para. 5 (1991).

<sup>41</sup> 47 U.S.C. § 503(b), 47 C.F.R. §§ 0.111, 0.311, 1.80(f)(4), 1.1310.

<sup>42</sup> 47 U.S.C. § 504(a).

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.<sup>43</sup>

21. **IT IS FURTHER ORDERED** that a copy of this *Order* shall be sent by First Class Mail and Certified Mail Return Receipt Requested to Visionary Related Entertainment, L.L.C., P.O. Box 1730, Rohnert Park, California, 94927.

**FEDERAL COMMUNICATIONS COMMISSION**

Rebecca L. Dorch  
Regional Director, Western Region  
Enforcement Bureau

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<sup>43</sup> See 47 C.F.R. § 1.1914.