

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

In the Matter of 1998 Biennial Regulatory )  
Review -- Amendment of Part 18 of the )  
Commission's Rules to Update Regulations ) ET Docket No. 98-42  
for RF Lighting Devices )  
)  
)

**NOTICE OF PROPOSED RULE MAKING**

**Adopted:** April 1, 1998

**Released:** April 9, 1998

**Comment Date:** [75 days from the date of publication in the Federal Register]

**Reply Comment Date:** [105 days from the date of publication in the Federal Register]

By the Commission: Commissioner Furchgott-Roth issuing a statement.

**INTRODUCTION**

**0.0.1** By this action, the Commission proposes to amend Part 18 of its rules to update the regulations for radio frequency (RF) lighting devices. Recent developments and advances in RF lighting technology offer potential economic and environmental benefits for consumers and industry. The current FCC rules, however, may not easily accommodate these technological advancements and thus hinder the further development and implementation of these new products. This action seeks to reduce unnecessary regulatory burden and to support the introduction of new and beneficial products while ensuring that spectrum-based communications services continue to be protected from interference. Accordingly, the Commission proposes to relax the line-conducted emission limits and to adopt radiated emission limits above 1 GHz for RF lighting devices and solicits comments on these proposals.

**BACKGROUND**

**0.0.2** RF lighting devices produce light by using RF energy to stimulate gases contained inside a RF lamp. RF lighting technology has been typically designed to operate at relatively low frequencies around 150 kHz. In 1985, the Commission classified RF lighting

devices to be Part 18 Industrial, Scientific, and Medical (ISM) equipment and adopted rules to control the harmful interference to spectrum-based communications services that might be generated by such devices.<sup>1</sup> The current Part 18 RF lighting device rules specify AC power line-conducted emissions limits between 450 kHz and 30 MHz and radiated emissions limits between 30 MHz and 1 GHz.<sup>2</sup> The primary reason for an AC power line-conducted limit is to reduce the level of radiated emissions from the power line, which acts as an antenna below 30 MHz. Between 30 MHz and 1 GHz, interference is reduced through radiated emission limits. Part 18 establishes different emissions limits for consumer and non-consumer equipment. Consumer ISM equipment is that used or intended to be used by the general public in a residential environment, *e.g.* domestic microwave ovens. Non-consumer ISM equipment is that used in commercial and industrial environments. Consumer ISM equipment is typically used in close proximity to TV and other radio receivers and therefore is subject to more restrictive emissions limits.

## DISCUSSION

**0.0.3** We believe that the new RF lighting technologies offer potential economic and environmental benefits for consumers and industry. Additionally, we recognize that the existing rules, which were adopted in 1985 for the first generation of RF lighting devices, which operated at lower frequencies, do not readily accommodate new advanced RF lighting devices. We therefore believe it is appropriate to review and update our rules to accommodate these new technological advancements in RF lighting to the extent possible while continuing to protect communications services from harmful interference. This Notice seeks comment to help the Commission determine the appropriate regulations necessary to protect communications services while facilitating development and use of the new generation of energy saving RF lighting devices.

**0.0.4 *Electrodeless Fluorescent Lamp.*** Recently, U.S. manufacturers have developed new RF lighting technologies that operate at higher frequencies than previous RF lighting products. An example of this innovative technology is the Electrodeless Fluorescent Lamp (EFL) developed by GE that operates between 2.2 and 2.8 MHz.<sup>3</sup> EFL lamps are nearly identical in size and shape to incandescent bulbs. GE claims, however, that its lamp is more efficient and longer-lasting than current incandescent consumer bulbs, and also states

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<sup>1</sup> The Commission adopted RF lighting limits in 1985. These limits were based upon the Part 15 limits designed to control interference from digital and computing devices. *See* Third Report and Order, Gen. Docket 20718, FCC 85-445 (released Aug. 21, 1985), 50 Fed. Reg. 36061 (1985).

<sup>2</sup> *See* Appendix B for existing limits.

<sup>3</sup> On November 15, 1994, GE filed a petition for waiver of Section 18.307(c) to relax the line-conducted emission limit for RF lighting consumer products to the non-consumer limit, in the 2.2-2.8 MHz band, for a period of two years. GE also asked for an additional waiver to produce and test 100,000 units at a given level beyond the non-consumer limit. The Commission granted GE a partial waiver on October 23, 1995. A copy of the waiver and petition are included in the record of this proceeding.

that EFL lamps are an improvement over existing low frequency RF lights known as Compact Fluorescent Lamps (CFL). GE claims that a new 23-watt EFL will provide light similar to a 75-watt standard incandescent bulb and is expected to last two or three times longer than present lamps that use electrodes.<sup>4</sup> GE states that electrical lighting accounts for 20% to 25% of the electricity used annually in the United States, and therefore, EFL lamps can help reduce energy consumption and associated pollution. GE estimates that EFL technology would produce potential yearly savings of 953 million kilowatt hours and an estimated consumer savings of \$1.4 billion with only 10% of light sockets converted to this new technology.<sup>5</sup>

**0.0.5** GE's new RF light operates in the 2.2-2.8 MHz band. Services allocated in this band include Aviation, International Fixed Public, Maritime, Private Land Mobile, Government fixed and mobile, and standard frequency and time transmissions. Operations on these frequencies include, among others, Civil Air Patrol, ship to shore communications, broadcast auxiliary, local government and police operations. In preparation for submittal of its waiver request, GE conducted an analysis of the impact of its EFL lamp on communications operations and concluded that it is unlikely to cause interference unless it is used within 10 to 20 meters of a receiving station.<sup>6</sup> We note that the National Telecommunications and Information Administration (NTIA) expressed concern about the GE waiver and requested that measures be taken to ensure that the lamps are not used on Safety of Life At Sea (SOLAS) ships and associated coast stations or at facilities operating standard frequency and time systems. NTIA recommended that an advisory label be placed on the product packaging warning of possible interference to maritime operations. In response, the Commission included this labeling requirement as a condition of the GE waiver.

**0.0.6** GE's EFL lamps offer potential economic and environmental benefits to consumers but do not meet the Part 18 emission limits designated for consumer products, *i.e.*, products used in a residential environment. The Part 18 emissions limits are more stringent for consumer products than for non-consumer products because of the assumption that interference is more likely in a residential environment. This assumption is correct when interference to television, international broadcasts, AM and FM broadcasts, amateur operations, and other consumer operations are of concern since, in a residential environment, the source of the interference would likely be in close proximity to the receiving equipment. However, radio operations in the 2.2-2.8 MHz band are not normally employed or intended for reception in residential environments; rather, these radio operations generally are employed in commercial and industrial environments. GE's EFL

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<sup>4</sup> See GE waiver request at Exhibit 2, article titled, "GE's Genura - a lighting industry first - makes global debut."

<sup>5</sup> See GE waiver request at pgs. 11-12.

<sup>6</sup> See GE waiver request, Exhibits 12 and 13.

**lamps do meet the non-consumer conduction and emission limits in Part 18.**

**0.0.7** We initially granted the GE waiver to permit an assessment of the feasibility of relaxing the RF lighting limits in the 2.2-2.8 MHz band. GE submitted an interference study with their waiver request stating that interference to users in this band is unlikely. Additionally, we have no evidence to suggest that relaxation of the limits in this band will create any significant risk of interference to typical consumer services in a residential environment. We note that there have been no reported cases of interference during the 2-year period of the waiver. We recognize that the existing limits were originally adopted for products operating at a lower frequency and pose challenges to products using new technology. We believe that it is appropriate to propose to relax the RF lighting limits to facilitate the use of this new technology. Accordingly, we propose to relax the consumer line-conducted emission limit in Section 18.307(c) by 22 dB in the 2.2-2.8 MHz band to the existing non-consumer limit of 3000 microvolts.<sup>7</sup> These devices also would be required to comply with the applicable emission limits outside the 2.2-2.8 MHz band.<sup>8</sup> We seek comment on this proposal. We also seek comment on whether any other requirements are necessary such as the advisory label for maritime use required under the GE waiver. Finally, we invite comment as to whether any requirements may be necessary to address transient emissions that can occur when these lamps are turned on and off.

**0.0.8 *Microwave Lighting.*** Fusion has developed a high-power RF lamp for commercial use that operates in the 2400-2500 MHz (2450 MHz) Industrial, Scientific, and Medical (ISM) band. The development of Fusion's high frequency lighting device has been encouraged and supported by Department of Energy (DOE), the Environmental Protection Agency (EPA) and the National Air and Space Administration (NASA).<sup>9</sup> This lamp is an efficient, longer-lasting, high-power commercial lamp that is suitable for lighting coverage of large, commercial areas, such as warehouses, parking lots and shopping malls.<sup>10</sup> Fusion states that its sulfur based lamp is more than four times more efficient than incandescent lighting yet does not have the color drawbacks of mercury based high intensity discharge lamps often used in typical outside lighting and commercial environments. The lamp produces a spectra closely matching that of the sun, but with very little heat or ultraviolet

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<sup>7</sup> We note that this proposal is consistent with international standards adopted for RF lighting devices operating in the 2.51-3.0 MHz band.

<sup>8</sup> See Sections 18.303 and 18.307(c).

<sup>9</sup> See Fusion Lighting "Fact Sheet" contained in Fusion supplemental information provided during May 20, 1996 presentation to OET.

<sup>10</sup> On May 31, 1996, and in a follow-up letter on December 31, 1996, Fusion filed a petition for waiver of Section 18.307(c) for its RF lighting product operating in the 2450 MHz band. A copy of the waiver request is included in the record of this proceeding. On May 28, 1997, Fusion Lighting withdrew its waiver request based on the understanding that the Commission intended to initiate the present rulemaking to review RF lighting standards.

rays. In testing demonstrations, two Fusion lamps, shining light from both ends into a reflective light tube 240 feet long, were able to replace the light of 240, 175-watt mercury lamps at the DOE headquarters. At the National Air and Space Museum, three Fusion lamps shining into three separate 90-foot light tubes replaced 94 conventional lights.

**0.0.9** Fusion notes that by definition its product is an RF lighting device. As such, it is subject to limits on conducted emissions. Fusion states, however, that the cost of complying with the line-conducted limits for RF lighting devices is excessive. The Fusion lamp must use a line filter to come into compliance with the FCC's line-conducted limits for commercial RF lighting devices. Fusion argues that although existing line filters will permit Fusion's lamp to pass the FCC limits, they are not designed for the operating temperatures of the lamp and therefore fail to meet Underwriter Laboratories (UL) safety requirements. Additionally, Fusion solicited data from power supply manufacturers and notes that a custom-made line filter needed to make their product meet both the FCC and UL requirements would add approximately 15 percent to the final cost of the lamp.

**0.0.10** Fusion states that its lamp uses a magnetron power source similar to magnetrons used in microwave ovens operating in the same band. Microwave ovens currently are subject only to out-of-band radiated emission limits in Section 18.305(b) and are not subject to line-conducted limits. Fusion argues that its product should be regulated the same as microwave ovens and should not be subject to the line-conducted emission limits. Alternatively, Fusion proposes line-conducted emission limits that it could meet without using emission filters.<sup>11</sup> Fusion's proposed limits are 25 dB to 35 dB above the FCC non-consumer limits for ISM devices.

**0.0.11** We believe that the RF lighting rules should be updated to provide for 2450 MHz lighting devices while still preventing harmful interference to other services. We are not persuaded that Fusion's lamp should be exempted from line-conducted emission limits. We continue to believe that the operating characteristics and expected proliferation of RF lighting products warrant appropriate measures to mitigate potential interference. However, we note that the existing rules for RF lighting devices did not specifically contemplate RF lighting products that operate on microwave frequencies. Therefore, we seek comment on whether Section 18.307(c) of the Commission's rules is appropriate for RF lighting products operating in the 2450 MHz band. In particular, the similarity between the RF power source used for Fusion's RF light and that used for microwave ovens indicates that some relaxation may be appropriate. Although microwave ovens are not subject to line-conducted emissions limits, sampling data indicates that they typically produce emissions up to 10 dB above the line-conducted limits for non-consumer RF lighting devices. Accordingly, we seek comment on whether the non-consumer line-

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<sup>11</sup> See Fusion letter, December 31, 1996 at p.3. Fusion proposes that it can meet the following limits without using a line filter: 100 dBuV below 450 kHz; 95 dBuV between 450 kHz and 5 MHz; and 95 dBuV decreasing linearly to 70 dBuV above 5 MHz.

conducted limits in Section 18.307(c) should be relaxed 10 dB for RF lighting products. We encourage parties to submit technical analyses to support their comments on appropriate limits.

**0.0.12** We note that the regulations for RF lighting devices in Section 18.305(c) do not include any radiated emissions limits above 1 GHz. Earlier RF lighting technologies generally did not radiate significant energy above 1 GHz. However, the Fusion lamp radiates significant RF energy across a broad range of microwave frequencies. We are particularly concerned that this energy could cause interference to other services operating near the 2450 MHz band, such as the Digital Audio Radio Service operating in the 2320-2345 MHz frequency band. We note that the radiated emissions limits for RF lighting devices between 30 and 1000 MHz were originally adopted based upon the Part 15 radiated limits for digital devices.<sup>12</sup> Accordingly, we propose radiated emissions limits above 1 GHz for RF lighting products identical to the limits already in place for digital devices. We propose a limit of 100 microvolts per meter for non-consumer equipment and 50 microvolts per meter for consumer equipment.<sup>13</sup> We seek comment on whether these limits are adequate to protect against interference to communications services that may be caused by RF lighting products. Further, we invite comment as to the impact these limits may have on the costs and viability of microwave RF lighting technology. We also invite comment on the alternative of applying the radiated emissions limits for microwave ovens in Section 18.305(b) to radiated emissions from RF lighting products above 1000 MHz.

**0.0.13** Finally, consistent with the regulations for ISM equipment, no radiated emission limit would apply within the ISM frequency bands.<sup>14</sup> In addition to consumer microwave ovens used in the 2450 MHz band that are found in most households, there are many additional 2450 MHz ISM uses such as for commercial food processing, medical treatment, semiconductor chip manufacturing and other industrial applications both domestically and internationally. These high power vital applications are specifically designed to operate in the ISM bands due to their incompatibility with lower power communication systems. However, we note that the Mobile Satellite Service (MSS) shares the 2483.5-2500 MHz band with the ISM service.<sup>15</sup> In accommodating MSS use in the 2450 MHz ISM band, the Commission concluded, based on analysis provided by MSS applicants, that MSS operations should not be adversely affected by ISM operations and that no specific

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<sup>12</sup> See Third Report and Order, Gen. Docket 20718, FCC 85-445 (released Aug. 21, 1985), 50 Fed. Reg. 36061 (1985).

<sup>13</sup> See Sections 15.109(a) and (b). Note that the limits are corrected for the different measurement distances between Parts 15 and 18.

<sup>14</sup> See Sections 18.301 and 18.305(a).

<sup>15</sup> See Table of allocations in Section 2.106. Footnote 752 of the table indicates that the 2400-2500 MHz band is designated as an ISM band and other services must accept harmful interference from ISM devices.

MSS/ISM sharing rules were warranted.<sup>16</sup> We believe that this conclusion is still valid for new RF lighting technology that will operate in the 2450 MHz ISM band. However, we expect RF lighting devices to proliferate and to possibly include outdoor lighting, such as street lighting. We invite comment as to whether the assumptions made previously regarding sharing of this spectrum by ISM equipment and MSS are valid for new RF lighting technology. In particular, we invite comments as to whether it may be necessary to establish in-band limits for RF lighting technology to facilitate sharing.

## PROCEDURAL MATTERS

**0.0.14** This is a permit-but-disclose notice and comment rule making proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in the Commission's rules. *See generally* 47 CFR Sections 1.1202, 1.1203, and 1.1206(a).

**0.0.15** *Comment Dates.* Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. Sections 1.415 and 1.419, interested parties may file comment on or before [75 days from date of publication in the Federal Register] and reply comments on or before [105 days from date of publication in the Federal Register]. To file formally in this proceeding, you must file an original and five copies of all comments, reply comments, and supporting comments. If you want each Commissioner to receive a personal copy of your comments, you must file an original plus nine copies. You should send comments and reply comments to Office of the Secretary, Federal Communications Commission, Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the FCC Reference Center of the Federal Communications Commission, Room 239, 1919 M Street, N.W., Washington, D.C. 20554.

**0.0.16** *Initial Regulatory Flexibility Analysis.* As required by the Regulatory Flexibility Act, *See* 5 U.S.C. § 603, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the expected impact on small entities of the proposals suggested in this document. The IRFA is set forth in Appendix A. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines as comments on the rest of the Notice, but they must have a separate and distinct heading designating them as responses to the IRFA.

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<sup>16</sup> *See Amendment of the Commission's Rules to Establish Rules and Policies Pertaining to a Mobile Satellite Service in the 1610-1626.5/2483.5-2500 MHz Frequency Bands*, CC Docket No. 92-166, *Report and Order*, 9 FCC Rcd 5936 (1994) at paragraphs 142 to 144.

**0.0.17 IT IS ORDERED that this NPRM IS ADOPTED. The proposed action is authorized under Sections 4(i), 301, 302, 303(e), 303(f), 303(r), 304 and 307 of the Communications Act of 1934, as amended, 47 U.S.C. Sections 154(i), 301, 302, 303(e), 303(f), 303(r), 304 and 307.**

**0.0.18 IT IS FURTHER ORDERED that the Commission's Office of Public Affairs, Reference Operations Division, SHALL SEND a copy of this NPRM including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.**

**0.0.19 For further information regarding this Notice of Proposed Rule Making, contact Anthony Serafini, Office of Engineering and Technology, (202) 418-2456.**

**FEDERAL COMMUNICATIONS COMMISSION**

**Magalie Roman Salas  
Secretary**



## APPENDIX A

### INITIAL REGULATORY FLEXIBILITY ANALYSIS

As required by the Regulatory Flexibility Act (RFA),<sup>17</sup> the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the expected significant economic impact on small entities by the policies and rules proposed in this Notice of Proposed Rule Making ("Notice"). Written public comments are requested on the IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the Notice. The Commission will send a copy of the Notice, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration. See 5 U.S.C. § 603(a). In addition, the Notice and IRFA (or summaries thereof) will be published in the Federal Register.

#### Need for and Objectives of the Proposed Rules:

This rule making proceeding is initiated to obtain comment regarding proposals to change the conducted line emission limits for RF lighting. Recent developments and advances in RF lighting technology offer potential economic and environmental benefits for consumers and industry. The current FCC rules, however, do not easily accommodate these technological advancements and thus hinder the further development and implementation of these promising new products. This action seeks to relax the Part 18 regulations to accommodate new and beneficial products while ensuring that other important communications services continue to be protected from interference. This action will potentially benefit all entities using RF lighting technologies, including small entities.

#### Legal Basis:

The proposed action is authorized under Sections 4(i), 301, 302, 303(e), 303(f), 303(r), 304 and 307 of the Communications Act of 1934, as amended, 47 U.S.C. Sections 154(i), 301, 302, 303(e), 303(f), 303(r), 304 and 307.

#### Description and Estimate of the Number of Small Entities to Which the Proposed Rule Will Apply.

The RFA generally defines a "small entity" as having the same meaning as the terms "small business," "small organization," and "small government jurisdiction."<sup>18</sup> In addition, the term "small business" is the same meaning as the term "small business concern" under the Small Business Act ("SBA"), 15 U.S.C. § 632, unless the Commission has developed one or more definitions that are appropriate to its activities.<sup>19</sup> Under the

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<sup>17</sup> See 5 U.S.C. § 603. The RFA, see 5 U.S.C. § 601 *et. seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

<sup>18</sup> 5 U.S.C. 601(6).

<sup>19</sup> 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 5 U.S.C. § 632).

**SBA, a "small business concern" is one that (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) meets any individual criteria established by the Small Business Administration (SBA).<sup>20</sup>**

**The Commission has not developed a definition of small entities applicable to RF Lighting Devices. Therefore, the applicable definition of small entity is the definition under the Small Business Administration (SBA) rules applicable to Communications Services, Not Elsewhere Classified. This definition provides that a small entity is one with \$11.0 million or less in annual receipts.<sup>21</sup> According to Census Bureau data, there are 848 firms that fall under the category of Communications Services, Not Elsewhere Classified. Of those, approximately 775 reported annual receipts of \$11 million or less and qualify as small entities.**

**This Notice seeks comment to help the Commission determine the appropriate regulations necessary to protect communications services while facilitating development and use of the new generation of energy saving RF lighting devices. We also request comment on the description and the number of small entities that may be significantly impacted by this proposal.**

#### **Description of Projected Reporting, Recordkeeping and Other Compliance Requirements:**

**Under Part 18 of the FCC rules, consumer ISM equipment must be approved under the FCC certification process and non-consumer equipment is subject to verification. No changes are proposed to the testing and approval process requirements for RF lighting product.**

#### **Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered:**

**U.S. manufacturers have developed new RF lighting technologies that offer potential economic and environmental benefits to consumers and industry. General Electric (GE) has developed and Electrodeless Fluorescent Lamp (EFL) that operates between 2.2-2.8 MHz. This a more efficient, longer lasting consumer lamp that is an alternative to normal incandescent light bulbs. EFL lamps represent a new generation of technology beyond the existing low frequency RF lights known as Compact Fluorescent Lamps (CFL), which are limited in their applications due to their non-traditional design using curved tubing. EFL lamps are nearly identical in size and shape to incandescent bulbs and therefore, are expected to have greater consumer applications and acceptance over CFL lamps.**

**The existing RF lighting rules were adopted many years ago for products operating at relatively low frequencies and do not easily accommodate new state-of-the-art RF lighting technologies. We believe it is appropriate to examine and modify our rules to accommodate these new technologies to the extent possible while still ensuring that communications services are protected from harmful interference.**

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<sup>20</sup> 15 U.S.C. § 632.

<sup>21</sup> 13 CFR § 121.201, Standard Industrial Classification (SIC) Code 4899.

**Fusion Lighting, Inc. (Fusion) has developed an efficient, longer-lasting, high-power commercial lamp that is suitable for lighting coverage of large, commercial areas, such as warehouses, parking lots and shopping malls. Fusion's efforts were supported by the Department of Energy (DOE), the Environmental Protection Agency (EPA) and the National Air and Space Administration (NASA). Fusion states that its sulfur based lamp is over four times more efficient than incandescent lighting, yet does not have the color drawbacks of present mercury based high intensity discharge lamps used in typical outside lighting and commercial environments. The lamp produces a spectra closely matching that of the sun, but with very little heat or ultraviolet rays. In testing demonstrations, two Fusion lamps, shining light from both ends into a reflective light tube 240 feet long, were able to replace the light of 240 and 175 watt mercury lamps at the DOE headquarters. At the National Air and Space Museum, three Fusion lamps shining into three separate 90-foot tubes replaced 94 conventional lights.**

**Fusion states that the cost of complying with the current line-conducted limits for RF lighting devices is excessive. The Fusion lamp must use a line filter to come into compliance with the line-conducted limits for commercial RF lighting devices. Fusion argues that although existing line filters will permit Fusion's lamp to pass the current FCC limits, they are not designed for the operating temperatures of the lamp and therefore fail to meet Underwriter Laboratories (UL) safety requirements. Additionally, Fusion solicited data from power supply manufacturers and notes that a custom line filter needed to make their product meet both the FCC and UL requirements would add approximately 15 percent to the final cost.**

**At this time, we are proposing no additional, alternative RF rule modifications beyond those generally described by GE and Fusion. We seek comment on any additional alternatives.**

**Federal Rules that May Duplicate, Overlap, or Conflict With the Proposed Rule:**

**None.**

**APPENDIX B**  
**EXISTING RULES**

Sections 18.305(c) radiated limits for are as follows:

<b>Frequency (MHz)</b>	<b>Field strength limit at 30 meters (uV/m)</b>
<b>Non-consumer equipment:</b>	
<b>30-88</b>	<b>30</b>
<b>88-216</b>	<b>50</b>
<b>216-1000</b>	<b>70</b>
<b>Consumer equipment:</b>	
<b>30-88</b>	<b>10</b>
<b>88-216</b>	<b>15</b>
<b>216-1000</b>	<b>20</b>

Section 18.307(c) line-conducted limits are as follows:

<b>Frequency (MHz)</b>	<b>Maximum RF line voltage measured with a 50 uH/50 ohm LISN (uV)</b>
<b>Non-consumer equipment:</b>	
<b>0.45 to 1.6</b>	<b>1000</b>
<b>1.6 to 30</b>	<b>3000</b>
<b>Consumer equipment:</b>	
<b>0.45 to 30</b>	<b>250</b>

**APPENDIX C**

**PROPOSED RULE CHANGES**

**Title 47 of the Code of Federal Regulations, Part 18, is amended to read as follows:**

**1. The authority citation for Part 18 continues to read as follows:**

**AUTHORITY:** Sec. 4, 301, 302, 303, 304 and 307 of the Communications Act of 1934, as amended, 47 U.S.C. Sections 154, 301, 302, 303, 304 and 307, unless otherwise noted.

**2. Section 18.305, paragraph (c), is amended to read as follows:**

**Section 18.305 Field Strength Limits.**

\* \* \* \* \*

**(c) The field strength limits for RF lighting devices shall be the following:**

<b>Frequency (MHz)</b>	<b>Field strength limit at 30 meters (uV/m)</b>
<b>Non-consumer equipment:</b>	
<b>30-88</b>	<b>30</b>
<b>88-216</b>	<b>50</b>
<b>216-1000</b>	<b>70</b>
<b>Above 1000</b>	<b>100</b>
<b>Consumer equipment:</b>	
<b>30-88</b>	<b>10</b>
<b>88-216</b>	<b>15</b>
<b>216-1000</b>	<b>20</b>
<b>Above 1000</b>	<b>50</b>

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3. Section 18.307, paragraph (c), is amended to read as follows:

**Section 18.307 Conduction Limits.**

\* \* \* \* \*

**(c) RF lighting devices:**

Frequency (MHz)	Maximum RF line voltage measured with a 50 uH/50 ohm LISN (uV)
<b>Non-consumer equipment:</b>	
0.45 to 1.6	3,000
1.6 to 30	10,000
<b>Consumer equipment:</b>	
0.45 to 2.2	250
2.2 to 2.8	3,000
2.8 to 30	250

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**Separate Statement of Commissioner Harold W. Furchtgott-Roth**

**In re: Notice of Proposed Rulemaking**

**1998 Biennial Regulatory Review -- Amendment of Part 18 of the Commission's Rules to Update Regulations for RF Lighting Devices.**

**I support adoption of this Notice of Proposed Rulemaking. To my mind, any reduction of unnecessary regulatory burdens -- or "streamlining" -- is always a plus. To that extent, this item is good policy and I am all for it. This item should not, however, be mistaken for compliance with Section 11 of the Communications Act.**

**The issue here is better light bulbs, not broad regulatory reform.**

**First of all, in Section 11, Congress required the Commission to conduct, beginning in 1998, a biennial review of all regulations that govern the operations of "any provider of telecommunications service." 47 U.S.C. Section 161(a)(1). By its terms, Section 11 does not apply to regulations governing RF emissions from light bulbs. I therefore believe that this item is premised not on the biennial review requirement of Section 11 (notwithstanding the item's caption, which suggests otherwise) but on our general authority to modify or eliminate our rules when appropriate under, *e.g.*, Section 4(i) Communications Act, *id.* Section 154(i).**

**Second, this item focuses mainly, as do some "pure" Section 11 items that we have issued,<sup>22</sup> on procedural or less significant substantive rules as opposed to extraordinarily burdensome regulations that, *e.g.*, restrict market entry or limit market share. As stated above, it is certainly important that in the course of the 1998 biennial review we evaluate our rules and modify or eliminate them if necessary. But Section 11 requires us to look at *all* of our rules governing the operations of telecommunications service providers and make an affirmative finding of their continued necessity.**

**If all we do is "streamline" certain procedures and less important substantive rules at the Commission, without also examining key substantive rules and making the statutorily-required determinations of necessity, we will fail to meet the express directive of Congress in Section 11.**

**As I have previously explained, I question whether the FCC is prepared to meet its statutory obligation to review all of the regulations covered by Section 11 in 1998. *See generally 1998 Biennial Regulatory Review -- Review of Computer III and ONA Safeguards and Requirements*, 12 FCC Rcd \_\_ (Jan. 29, 1998). To my knowledge, the FCC has no plans to review affirmatively *all* regulations applicable to the operations or activities of**

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<sup>22</sup>By this I mean items regarding rules applicable to telecommunications service providers.

**telecommunications providers and to make specific findings as to their continued necessity. Nor has the Commission issued general principles to guide our “public interest” analysis and decisionmaking process across the wide range of FCC regulations.**

**We should not let this item, which does not relate to telecommunications rules and focuses on a minor regulatory issue, or any other limited Commission analysis, be mistaken for full compliance with Section 11.**

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