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Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554Federal Communications Commission
Office of SecretaryRe: Request for Waiver of 47 C.F.R. §17.47

Dear Ms. Dortch:

On behalf of American Tower Corporation ("ATC"), I am hereby submitting an original and four copies of ATC's Request for Waiver of 47 C.F.R. §17.47. In light of the public interest showing made in the waiver request, expedited processing is respectfully requested.

Please date-stamp the enclosed "Return Copy" of this filing and return it to the courier delivering this package. Please direct any questions regarding this request to the undersigned.

Very truly yours,

Dennis P. Corbett
Counsel to American Tower CorporationDPC:rjc
Attachmentcc (by hand & e-mail; w/ encl.): Mr. Jeffrey Steinberg
Mr. George Dillon
Mr. Scott Delacourt

BEFORE THE
Federal Communications Commission
WASHINGTON, DC 20554

In the Matter of)
)
American Tower Corporation)
Request for Waiver of)
47 C.F.R. § 17.47)
)

To: The Commission

REQUEST FOR WAIVER

American Tower Corporation (“ATC”), by its attorneys, hereby requests a limited waiver of the Commission’s existing rule which requires antenna tower owners to inspect, a minimum of once every three months, all automatic or mechanical control devices, indicators, and alarm systems on towers that must be lit (hereinafter referred to as “Quarterly Inspections”).¹ ATC requests that the Commission modify the Quarterly Inspections requirement to provide that such inspections be made annually with regard to all ATC towers utilizing the Eagle Monitoring System (“Eagle System”) developed by Flash Technology.²

The factual record set forth below compellingly justifies the requested relief. This is a classic case where technological advances have overtaken an outdated regulatory model. When the rule was adopted more than sixty years ago, periodic on-site visits were necessary to confirm that automatic control devices and alarm systems were functioning properly. However, the latest technology incorporated in today’s most advanced automatic control devices – the Eagle System

¹ See 47 CFR § 17.47. Under the Commission’s Rules, tower owners are required to notify the FAA of any malfunction of a steady burning top light or any flashing obstruction light that cannot be fixed within thirty minutes so that a Notice to Airmen (“NOTAM”) can be issued. 47 CFR § 17.48(a).

² ATC sold its Flash Technology business to the Dielectric Communications Division of SPX Corporation in January 2003.

in particular – is dramatically and demonstrably more advanced and reliable than the technology that was in use when on-site Quarterly Inspections were first mandated. Indeed, this new technology provides the functional equivalent of a continual inspection of control devices, from one central location. While tower owners using older systems may not learn of a malfunctioning control device for up to three months (the time between quarterly on-site visits), users of the Eagle System will be alerted to actual and potential problems, immediately in many cases and at most within twenty-four hours.

Without relief, ATC will continue to carry out tens of thousands of quarterly inspections each year without a discernible public interest benefit. On the other hand, grant of this waiver request will recognize ATC's substantial investment in advanced technology, at a level far above and beyond Commission requirements. It will also provide those tower owners who do not use this latest technology with a strong incentive to upgrade their antenna tower lighting equipment, which is a tangible and substantial public safety and public interest benefit.³

The Commission has not considered this issue in nearly forty years. On that last occasion, in 1967, the Commission rejected a proposal to modify Quarterly Inspections to make them annual, summarily stating that a sufficient showing had not then been made warranting a reduction in the frequency of inspections. All these years later, the Commission can and should find that technological developments amply justify the waiver requested herein.

³ ATC recognizes that the showing set forth justifies a total suspension of Quarterly Inspections on ATC towers employing the Eagle System. ATC has proposed to maintain an annual inspection requirement out of an abundance of caution, to give the Commission an interim step that is a logical precursor to a total phase out of these kinds of site inspections, at least where Eagle System technology or its functional equivalent is employed. If the Commission is inclined to make a more dramatic change, however, ATC would support a total elimination of Eagle System Quarterly Inspections at this time.

I. History of Lighting Inspection Requirements.

In 1943, the Commission promulgated a rule that required all radio station licensees who make use of an antenna that was required to be lit to make a visual observation of the tower lights at least once each twenty-four hours and to inspect all beacons and automatic control devices *at least once every three months.*⁴ In 1945, the Commission adopted a rule with regard to the Utility Radio Service which mirrored the 1943 regulation, but permitted daily observation of the lighting either visually or by use of an automatic indicator.⁵ Although not directly addressed in the administrative history, Quarterly Inspections were obviously designed to help owners discover malfunctions in automated equipment through on-site inspections. Moreover, the requirements were adopted at a time when the typical tower owner lived in a locale proximate to the tower sites.

The Commission reorganized its rules applicable to radio station licensees in 1953 and then modified the rule to permit use of either visual observations, observation of an automatic indicator, or use of an automatic alarm system designed to detect antenna lighting system failures. Licensees were required to inspect such automatic indicators and alarm systems at least once every three months. Since 1953, the inspection requirements have not substantively changed. In sharp contrast, the equipment used to monitor tower lighting has improved dramatically since that time.

II. Overview of ATC's Operations

ATC owns or operates more than 12,000 towers in the United States, 4,600 of which are subject to the Commission's lighting requirements and monitored by the Eagle System.

Compliance with the Quarterly Inspections requirement requires a trained technician to visit each

⁴ See 47 C.F.R. § 2.82 (1943) (emphasis added). See also, 8 Fed. Reg. 13514 (1943), attached as Exhibit 1.

⁵ See 47 C.F.R. § 17.149 (1946).

of these 4,600 sites four times a year for a total of 18,400 site visits annually. As some of ATC's tower sites are located in remote, hard-to-reach places, the Quarterly Inspections requirement imposes significant cost and personnel burdens on ATC. By way of example, ATC maintains numerous mountainous sites that are only accessible by snow cat or snowmobile during winter months. In addition, ATC maintains tower sites in such locales as Koala, Hawaii, which is accessible only by helicopter. Overall, ATC's tower roster covers 49 states (excepting only Alaska) and the District of Columbia, encompassing a wide variety of geographic and topographic locales. While these towers enable ATC and its customers to provide important services to the public, the legal obligation to inspect each of them every three months creates a significant burden. Indeed, in complying with the Quarterly Inspections requirement, ATC spent approximately \$4.9 million in 2004 to conduct the 18,400 site visits referenced above.

That \$4.9 million outlay and those 18,400 site visits have failed to produce a tangible benefit. Indeed, due to the accuracy and reliability of the Eagle System, during the 43,761 on-site quarterly inspections conducted at ATC/Eagle System towers since March 28, 2002, not a single NOTAM-worthy event was discovered during any on-site visit.⁶ It is difficult to imagine more cogent proof of the need for, and the propriety of, grant of this limited waiver request.

III. The Eagle System: State-of-the-Art.

In the 1960's, when the Commission last considered relaxing the Quarterly Inspections requirements, one of the predominant monitoring systems employed a fuse-based meter design. Such systems consisted of a direct feed line that would monitor the electrical current going through a power fuse to the lighting system. The system would generate an alarm when the fuse would burn out. This fuse-based meter design permitted only one-way contact between the

⁶ Only one previously unknown lighting system issue was discovered through these 43,761 on-site inspections. In that instance, a tower side marker light that should have shut down at dawn and turned on at dusk was instead found continuously illuminated, which is a non-NOTAM worthy event under the Commission's rules. 47 CFR § 17.48(b).

monitoring system and the tower lighting, which was traditionally checked only once every twenty-four hours. This system also suffered from the fact that it was possible for a bulb to be extinguished without the fuse being tripped, and without an alarm being generated, despite a NOTAM-worthy occurrence. Very few, if any, tower owners still use this fuse-based technology to monitor tower lighting systems and ATC does not use this system at all.

A second monitoring technology, also used far less frequently now, and not at all by ATC, is the dry-contact system. This type of monitoring system is analogous to a light switch and monitors only whether power is being delivered to the tower lighting system. A wire circuit connects the monitoring system to a central control location. The system generates an alarm if the circuit loses power. However, an alarm can be triggered by several non-lighting system malfunctions, such as broken or shorted-out wiring. Moreover, it is possible that the dry-contact system will show that power is being delivered to the lighting system even though a light is in fact out, and so no alarm will be generated despite a NOTAM-worthy event.

In addition to these systems, many tower owners have relied on so-called FBI and ADEMCO systems, which also provide only one-way communications to the tower lighting system. This technology allows a central control location to poll each tower lighting system twice per day to determine if any alarms had been triggered. These systems also suffer from certain communication problems as the lines they use between the central location and lighting systems are susceptible to static, compromising the ability to establish a connection between the system and the central location.

In contrast to these systems, ATC uses Eagle System technology to monitor its tower lighting systems wherever possible. Eagle System implementation and use have been immensely successful. At each tower, the Eagle System utilizes an on-site controller device that is connected to the tower lighting system. One component of the controller is a computer board that continuously monitors the status of the tower lights. Each controller is connected by

telephone line, cellular line or microwave V-SAT to a centralized and dedicated network of computers located at the Alarm Response Center ("ARC") in Nashville, Tennessee utilized by ATC. When the controller detects a problem with the tower lighting system, it immediately contacts the ARC, which is staffed with trained technicians 24 hours per day, 365 days per year.⁷

When a tower lighting malfunction is detected, the controller automatically triggers an alarm notification on all technicians' computer consoles in the ARC. ARC technicians respond to the alert by performing detailed diagnostic tests with regard to the current status of the tower's lighting system. Among other things, the monitoring equipment allows for remote verification that a system is operating in the proper mode, information that prior monitoring systems could not provide. In many instances, the Eagle System provides the ARC the ability to conduct a remote diagnostic review of the system -- its line voltage, trigger voltage, flash energy, flash counts, beacon and marker wattages -- providing real-time information regarding the operation and status of the tower lighting system.

The Eagle System also includes a battery back-up so that even if power is lost at a tower site, the ARC can still receive an alarm and maintain two-way communication with the tower site to confirm power outage to the site and open a NOTAM. No other remote monitoring system is able to perform in this manner during a power loss.

The Eagle System is able to provide the ARC technician with all of the information that an on-site visit could provide, and does so immediately, rather than requiring a technician to travel to the tower. In other words, the Eagle System performs the same functions as would a technician stationed at each tower site.

If the controller reports an issue that requires FAA notification, an ARC technician will open a NOTAM unless the problem can be diagnosed and remedied within thirty minutes of the

⁷ As part of this request, ATC extends to the Commission Staff a formal invitation to visit the ARC and a tower site to experience first-hand how the Eagle System functions.

initial alarm. In such NOTAM-worthy situations, the Eagle System affords the added benefit of providing detailed data regarding the lighting system problem to the ARC. As a result, in most cases, the repair technician can diagnose the problem before visiting the site and will thus know if any specialized equipment or parts will be required, speeding up ATC's resolution of the NOTAM-triggering problem.

Recognizing that the Eagle System depends on the ability of each tower's controller device to contact the ARC to report any issues, Flash Technology has established a fail-safe operating protocol whereby the ARC initiates an outbound telephone call to each tower's controller within continuous and consecutive twenty-four hour periods. This built-in redundancy is designed to guarantee that in the unlikely event of a problem with the tower lighting system, the Eagle System controller will be able to establish communication with the ARC and provide the information necessary to diagnose an issue. If the ARC is not able to establish telephone contact with a particular controller after ten attempts, out of an abundance of caution, a NOTAM is opened and an on-site visit by a technician is scheduled. The NOTAM is closed only upon confirmation that the repair is complete and the tower's lighting system is restored or communication is re-established between the controller and the ARC.

As a result of the Eagle System's technology and design, technicians at the ARC will be notified within minutes of the occurrence of any incident that would require opening a NOTAM and or of any equipment failure that could be discovered during an on-site tower inspection. The Eagle System's up-to-the minute monitoring of tower lighting systems reflects the state-of-the-art technology that the system employs. This technology represents a vast improvement over prior monitoring systems and provides a solid basis for grant of the relief requested.

The merit of the waiver request is evidenced by the fact that while tower owners utilizing remote monitoring systems that rely on only one-way communication may not discover a malfunction for up to three months, Eagle System users will be alerted to actual and potential

problems on a daily basis; either through an instantaneous alert from the tower controller or by the failure of the daily outbound telephone call to establish contact between a particular controller and the ARC.

IV. Waiver of the Quarterly Inspection Requirements As Requested Will Further the Public Interest.

The Commission has recognized the benefits of automated lighting monitoring in other contexts. In 1995, for example, the Commission rescinded its requirement that broadcast stations have a licensed radio operator on duty during all broadcasting operations.⁸ The Commission had previously noted that the radio operator's duties often included verification of antenna lighting systems.⁹ At that time, the Commission acknowledged that the monitoring of lighting equipment can be automated, and that doing so "appear[s] to provide greater aviation safety benefits than having a duty operator or other station employee personally check the lights only once a night."¹⁰ The Commission went on to note that several types of antenna tower light monitors are available and that "no evidence has been presented that such devices are unreliable."¹¹

Here, the Commission has an opportunity to promote the public interest benefits of properly monitored automatic lighting systems. In general, a waiver of the Commission's rules is appropriate if circumstances warrant a deviation from the rule and such deviation will better serve the public interest than would strict adherence to the rule.¹² In other instances, the

⁸ *Report and Order, Amendment of Parts 73 and 74 of the Commission's Rules to Permit Unattended Operation of Broadcast Stations*, 10 FCC Rcd 11479, para. 7 (1995) ("Amendment of Parts 73 and 74").

⁹ *Notice of Proposed Rulemaking, Amendment of Parts 73 and 74 of the Commission's Rules to Permit Unattended Operation of Broadcast Stations*, 10 FCC Rcd 508, para 15 (1994).

¹⁰ *Id.*

¹¹ Amendment of Parts 73 and 74, at para. 27.

¹² See *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990), citing *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969).

Commission has found that a rule waiver is appropriate where the underlying rule does not serve a demonstrable purpose.¹³ As demonstrated above, the state-of-the-art technology employed by the Eagle System provides around-the-clock monitoring of tower lighting systems as if an on-site technician were continually monitoring each of the tower lighting systems. Such technology was simply not contemplated when the Commission first promulgated its tower lighting and inspection rules, or when the Commission last considered modification of the Quarterly Inspection rule.

The rule is designed to help ensure that tower lighting systems and monitoring equipment function properly, but the Eagle System obviates the need for the rule by providing a superior and entirely reliable method for doing so, especially when compared to earlier-designed automatic monitoring systems. This reliability is confirmed by the fact that of the more than 43,000 quarterly inspections that have been conducted over the last 13 consecutive quarters on sites monitored by Eagle Systems, not a single NOTAM-worthy issue has been discovered.

This is a truly remarkable record and, as a result, a waiver of the Quarterly Inspection rule to permit ATC to conduct on-site inspections of the lighting control systems on an annual basis would be fully consistent with the spirit of the rule. Such a waiver will recognize the reliability of the advanced monitoring systems that use Eagle System technology or its equivalent. The Eagle System has made the Quarterly Inspection rule obsolete by establishing a protocol whereby a tower's lighting system is continually monitored, and the monitoring equipment itself is checked on a daily basis. As a result of its design, the Eagle System provides prompt notification of lighting system problems and potential problems, allowing the tower owner to quickly diagnose and resolve such issues.

¹³ See 47 C.F.R. § 1.925(b)(3)(i), 47 C.F.R. § 21.19(a) (removed Jan. 10, 2005 for unrelated reason).

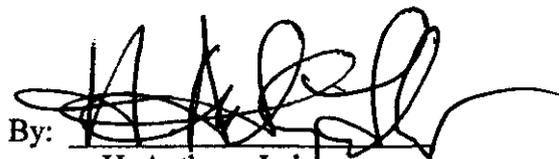
Perhaps most importantly, grant of the waiver request will likely lead other tower owners to upgrade their tower lighting systems to incorporate technologies that provide continual and reliable monitoring of tower lighting, the underlying goal of Commission oversight in this area.

VI. Conclusion.

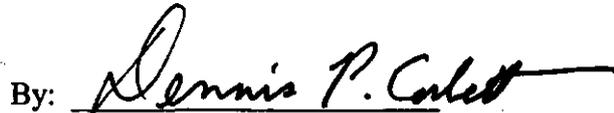
A grant of the waiver would save ATC millions of dollars and many thousands of person hours currently spent in conducting Quarterly Inspections, without any adverse effect on aviation safety. Advances in technology have rendered these inspections largely superfluous. Such a grant would also incentivize tower owners to utilize similar state-of-the-art monitoring technology and thereby improve aviation safety. For the foregoing reasons, American Tower Corporation respectfully requests that the Commission grant the requested limited waiver of its rules.

Respectfully submitted,

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