

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

In the Matter of)
)
Commonwealth of Massachusetts)
and Sprint Nextel Corporation)
)
Mediation No. TAM-12058)

WT Docket No. 02-55
FILED/ACCEPTED

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Federal Communications Commission
Office of the Secretary

APPLICATION FOR REVIEW

The Commonwealth of Massachusetts (Commonwealth), by its Department of State Police (MSP) and Department of Transportation (MassDOT), submits this *Application for Review*¹ of the decision of the Public Safety and Homeland Security Bureau addressing a dispute between the Commonwealth and Sprint Nextel Corporation relating to its 800 MHz reconfiguration (*Order*).²

SUMMARY

The Bureau's *Order* conflicts with the Commission's obligation to examine the relevant analysis of the parties and present a rational connection between the facts it determines and its decision while comporting with its statutory and regulatory responsibilities. The *Order* allows an interference environment in the Massachusetts Highway System (MHS) tunnels to continue contrary to the Commission's own policies and core emergency response commitments. It does not address the Commonwealth's position why Sprint Nextel is responsible and why its technical analysis is credible and the interference is real. It characterizes the Commonwealth's technical

¹ This *Application for Review* is filed pursuant to Section 1.115 of the Commission's Rules, Wireless Telecommunications Bureau Announced Procedures for De Novo Review in the 800 MHz Public Safety Proceeding, *Public Notice*, WT Docket No. 02-55, DA 06-224, 21 FCC Rcd 758 (January 31, 2006).

² In the Matter of Commonwealth of Massachusetts and Sprint Nextel, *Memorandum Opinion and Order*, WT Docket No. 02-55, DA 11-203 (February 3, 2011).

analysis as irrelevant. The *Order* contradicts itself; it states that the Commonwealth can pursue interference abatement procedures against Sprint Nextel while asserting that the Commonwealth is responsible to cure the interference. The Commission should reverse the Bureau's *Order* and direct Sprint Nextel to pay for the filtering needed to mitigate the interference.

BACKGROUND

Public safety communications have been beset by what the Commission describes as serious and intractable interference in the 800 MHz band, predominately from Nextel, now Sprint Nextel, operations. To remedy the environment, the Commission mandated reconfiguration of the 800 MHz band by relocating public safety and other licensees in August 2004.³ It also imposed heightened interference avoidance and abatement responsibilities on commercial carriers.

Under the mandate, Sprint Nextel is responsible to pay the cost to relocate licensees. Once relocated, the Commonwealth is entitled to facilities and equipment comparable to the environment in which it previously operated. This dispute involves Sprint Nextel's refusal to provide narrower filters to the bi-directional amplifiers within the MHS infrastructure and tunnels that transverses the Boston metropolitan area.

The Commonwealth's plea is that the Commission actually address the dispute. The Bureau's *Order* relies not on what it believes to be a comparable facility, but the moment in time when that standard is defined. The *Order* fails to acknowledge the significance that the MHS public safety communications system commenced operations when there were no cellular operations within its boundaries and that the dispute relating to the narrower filters is entwined in

³ Improving Public Safety Communications in the 800 MHz Band, *Report and Order, Fifth Report and Order, Fourth Memorandum Opinion and Order*, FCC 04-168 released August 6, 2004, 19 FCC Rcd 19651, WT Docket 02-55 et seq., Paragraph 68, and *Erratum*, 19 FCC Rcd 19651 (*August 2004 Order*).

the relocation process the Commission itself mandated. The *Order* defeats the central objective of the Commission's work- to ensure public safety operations are not interfered with by commercial operations.

The record shows that Sprint was asked in August 2007, prior to cellular deployment within the MHS, and as part of the 800 MHz planning process, to provide narrower filters. The record shows the technical analysis supporting the narrower filters and that interference actually exists. It indicates the premise of installing the filters during reconfiguration instead of when cellular service was commenced. But the *Order* never examines the record as it believes the Commonwealth's technical analysis irrelevant. It concludes that the Commonwealth may pursue Sprint Nextel through the Commission's interference abatement procedures yet states that the Commonwealth is responsible for mitigating Sprint's interference.⁴

THE MASSACHUSETTS HIGHWAY SYSTEM

Virtually all of the *MHS* is a wireless dead zone. Public safety communications within the infrastructure rely on 31 bi-directional amplifiers (BDA) placed throughout the system. These BDAs receive, amplify and retransmit on a one-way or two-way basis the signals received from base, fixed, mobile, and portable stations from outside and within the *MHS*. Filters currently installed on the BDAs are of a wideband character, passing the entire 800 MHz public safety and ESMR band from 806 to 824 MHz and 851 MHz to 869 MHz.

These bi-directional amplifiers are the only means to transmit radio signals throughout the *MHS* and its confined and enclosed tube environment. The amplifiers are located within 10 feet of the roadway and the mobile units of the cellular carriers' customers. Their effective operation is the foundation of emergency response throughout the MHS. When initially

⁴ The details of the Commonwealth's position are set forth in its *Request for De Novo Review* of the Mediator's Decision and *Proposed Resolution Memorandum*, which are part of the record.

deployed and until November 2008, the challenge within the MHS was its subterranean dead zone character, not commercial cellular operations as none existed.

Four years subsequent to Commission action to remedy interference to public safety 800 MHz operations, in November 2008, when 800 MHz commercial cellular service commenced, the environment changed irrevocably. The MHS now had competing 800 MHz systems. The commercial cellular service is a multicarrier system where various wireless carrier signals are transmitted over the same system. Sprint Nextel is the lead carrier. Full-scale regular sites with dedicated base stations are deployed. The commercial system's bi-directional amplifiers boost the signals between the customer's mobile unit and the base station. Critically, as of November 2008, there became within the MHS two low site systems using the 800 MHz band in a highly confined tube environment- the public safety network and the Sprint Nextel commercial network. The legacy MHS filters, which were not designed and deployed to accommodate competing commercial operations, now pass signals of both systems.

SPRINT NEXTEL IS RESPONSIBLE TO PAY THE COST OF THE NARROWER FILTERS

Under the law and the Commission's own strictures, its decisions must examine the relevant data, information and explanations submitted by a party. It must review a party's analysis in the context of the Commission's rules and policies. When examining a dispute *de novo*, the Commission must comprehensively examine the record. A decision that follows must present a rational connection to the analysis and why it agrees or disagrees with a party.⁵

The *Order* does not address the Commonwealth's position linking the lack of commercial service within the MHS and Sprint Nextel's responsibility to provide filtering once it

⁵ AT&T Corp. v. FCC, 236 F.3d 729, 737(D.C. Cir. 2001), American Radio Relay League, Inc. v. FCC, No. 06-1643 (DC Cir 2008), Section 706 of the Administrative Procedure Act, SEC v. Chenery Corp., 318 US 80, 88 (1943), Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mutual Auto. Ins. Co., 463 U.S. 29, 43 (1983).

commenced operations. And by doing so, it fails to even note, much less examine, the extensive history of addressing Sprint Nextel operations and the comprehensive technical documentation detailing the interference danger presented by the Commonwealth.⁶ These are fundamental defects. A licensee is entitled to have its analysis evaluated and addressed. A *de novo* proceeding means the record is actually evaluated. The *Order* fails this standard.

The *Order's* isolation from the entire 800 MHz interference history and the Commission's several emphatic actions to remedy it is its greatest flaw. The Commission's Orders, rules, procedures and processes must be implemented in harmony, not haphazardly. Responsibility to relocate a licensee is accompanied by a parallel obligation of not causing interference.

In its *August 2004 Order*, the Commission stated that it could not fail to take effective action addressing the untenable situation in the 800 MHz band-- where the safety of life and property is at risk when 800 MHz public safety radios fail due to interference from commercial systems.⁷ It imposed on commercial carriers a "strict responsibility" to abate harmful interference;⁸ it rejected the reactive approach to interference abatement.⁹ It defined harmful interference and notably references the very circumstances at stake in the MHS.¹⁰ The Commission also reconfigured the 800 MHz band to better separate commercial services and

⁶ The Commonwealth presents an extensive discussion of the MHS, including the technical parameters of its communications system and how Sprint Nextel service is an integral element of the overall relocation. Of particular note is the analysis and documentation prepared by MASSDOT, then the Massachusetts Turnpike Authority, which demonstrates not only the presence of interference but how the entire circumstance is an integral element of the 800 MHz relocation process. As it determined the interference irrelevant, the *Order* makes scant reference to the submission.

⁷ *August 2004 Order* at paragraph 62.

⁸ *August 2004 Order* at paragraph 128.

⁹ *August 2004 Order* at paragraph 115.

¹⁰ *August 2004 Order* at paragraphs 89, 159.

public safety communications. The Commission emphasized that band reconfiguration, where agencies are relocated and receive comparable facilities, and the obligation by commercial providers to avoid and abate interference are not mutually exclusive.¹¹

With the *August 2004 Order*, the commencement of cellular service or public safety service and the 800 MHz reconfiguration became inextricably linked. For the Commonwealth to have required the narrower filters prior to relocation, only to have the work repeated again, would have been wasteful and time consuming. There is also a reasonable view that filters placed on equipment using the legacy spectrum band would have marginal effect in the interleaved configuration between public safety and commercial channels. Deployment of the filters within the relocation process was an effective and reasoned path to address the environment that now exists. Examination of the Commonwealth's position, particularly its technical analysis, would have provided this insight.

The *Order* resists any analysis of the environment Sprint Nextel created on the basis that it is irrelevant. The *Order* disregards the Commission's goal to solve interference to public safety in the 800 MHz band. Instead, the *Order* suggests the Commonwealth pursue 800 MHz interference procedures. Its emphatic departure from Commission's policy engages fully when it makes an enormous leap, and states that the Commonwealth is responsible for providing the narrower filters, reasoning "There being no nexus between the initiation of cellular operation in the tunnels and rebanding the Commonwealth's system, any responsibility for installing narrowband filters rests with the Commonwealth..."¹² This reasoning contradicts the Order's statement that the Commonwealth can pursue interference abatement procedures under section 90.672 of the Commission's rules.

¹¹ *August 24 Order* at paragraph 88.

¹² *Order* at paragraph 13.

The Commission's comprehensive rules and policies addressing the 800 MHz band are premised on the incompatibility of commercial communications and those of public safety which are all too evident and ramifications too severe. Nowhere does the Commission state, as the *Order* does, that public safety must remedy the interference created by commercial operations. The Commission's *de novo* procedures require that it scrutinize the record. With the *Order* failing to do so, it ignores that the very environment the Commission's decisions addressed are profiled by the MHS tunnels. The interference is quantified and the danger shown with clarity. The Commission's rules and processes which the Commission created to relocate public safety agencies to new channels cannot be blind to the dangers from Sprint Nextel operations.

The Commonwealth submits this *Application for Review* to convey clearly the substantial risk that besets public safety communications operations in the MHS. It will pursue Sprint Nextel through interference remedy procedures and its obligations to the Commonwealth. Yet, with Sprint Nextel on full notice of the dangers since August 2007, such a bifurcated disparate path confounds the Commission's objective and reasoned interpretations of its rules and policies. That interference created by Sprint Nextel which endangers emergency response cannot be remedied in the relocation process established to assist public safety is out of sync with the framework of the history of interference by commercial operations and the Commission's action to remedy the circumstance. It is unreasonable and illogical.

Real danger in the MHS is accentuated because emergencies within it have cascading Effects, directly impacting the radio communications infrastructure. Failing to deploy the upgraded filters endangers the citizens needing help, the officers responding to the emergency and those who work in the tunnels. The MHS communications system was deployed to withstand extreme emergencies, infrastructure damage and to reach evacuation stairwells, refuge

areas, the ventilation shafts and utility areas. It is relied upon to work throughout the MHS, particularly in the high risk areas and during emergency incidents. It is designed to endure and survive during an emergency. Yet without the filters required by Sprint Nextel operations, the risk is identifiable and significant.

When it issued its *August 2004 Order*, the Commission candidly questioned whether the structure it established to remedy and prevent the interference was adequate, that it was testing the “wisdom of... forbearing system wide stringent regulation of the technical aspects of ESMR and cellular telephone systems pending an assessment of whether licensees can successfully

abate interference under less stringent regime...".¹³ To dismiss the Commonwealth's technical analysis as irrelevant, to isolate Sprint Nextel responsibilities and to state that the Commonwealth must remedy the environment caused by commercial operations portrays a regime far distant from the emergency response obligations at stake and the substantial risks that now exist.

Respectfully submitted,

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¹³ August 2004 Order at paragraph 131.

SERVICE

On March 4, 2011, this *Application for Review* was filed with the Commission's Secretary at its headquarters, 445 12th Street, SW, Washington, D.C. 20554. A copy of the *Application for Review* was provided electronically to the following:

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