

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

In the Matter of	)	
	)	
Amendment of the Commission's Rules	)	
Regarding Dedicated Short-Range	)	
Communication Services in the 5.850-5.925	)	
GHz Band (5.9 GHz Band)	)	WT Docket No. 01-90
	)	
Amendment of Parts 2 and 90 of the	)	
Commission's Rules to Allocate the 5.850-	)	
5.925 GHz Band to the Mobile Service for	)	ET Docket No. 98-95
Dedicated Short Range Communications of	)	RM-9096
Intelligent Transportation Services	)	
	)	

**To: The Commission**

**PETITION FOR RECONSIDERATION**

**3M COMPANY**

Edmund J. Ring  
Intelligent Transportation Systems  
3M Center  
MS235-3F-08  
St. Paul, Minnesota 55144

Its Counsel:

John A. Prendergast  
D. Cary Mitchell  
Blooston, Mordkofsky, Dickens, Duffy & Prendergast  
2120 L Street NW, Suite 300  
Washington, D.C. 20037

Filed: September 2, 2004

## SUMMARY

3M Company (“3M”) requests reconsideration of the Commission’s *Report and Order* in the above-captioned proceeding regarding Dedicated Short-Range Communication Services (“DSRC”) in the 5.850-5.925 GHz Band (“5.9 GHz Band”). In particular, while 3M generally supports the licensing and service rules for DSRC, the antenna height correction standard adopted by the Commission will unnecessarily restrict the implementation of a new emergency public safety technology, by requiring the deployment of several DSRC transmitters to cover an intersection where one transmitter would otherwise be sufficient. The standard is likely to double or triple the costs of deploying DSRC technology for state and local governments without any corollary interference protection benefit. In addition, the standard should be eliminated because the record does not support the adoption of an antenna correction factor, the Commission did not adequately consider other measures that it adopted to eliminate interference, and the Commission did not give consideration to the less restrictive alternatives for public safety entities that were contained in the record. Accordingly, 3M urges the Commission to reconsider the antenna height correction factor it has adopted for DSRC roadside units (“RSUs”) with antennas between 6 and 15 meters above ground level, as part of Rule Section 90.377(b).

The Commission should also eliminate the emission mask that it adopted for DSRC Class D devices as part of Rule Section 90.210 because it is unduly restrictive and will hinder the development of affordable public safety equipment.

**TABLE OF CONTENTS**

**SUMMARY ..... ii**

**TABLE OF CONTENTS ..... iii**

**I. Statement of Interest.....2**

**II. Factual Background .....2**

**III. The Commission Should Reconsider the Antenna Height Correction Factor  
that it Adopted for DSRC Roadside Units as Part of Rule Section 90.377(b).....4**

*a. Record Does Not Support the Antenna Correction Factor .....5*

*b. The Commission Failed to Consider the Other Measures That It Adopted to  
Eliminate Interference .....8*

*c. The Commission Failed to Consider Less Restrictive Alternatives for Public  
Safety Entities..... 11*

**IV. THE COMMISSION SHOULD MODIFY THE DSRC EMISSION MASK .....12**

**CONCLUSION .....14**

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

In the Matter of	)	
	)	
Amendment of the Commission’s Rules	)	
Regarding Dedicated Short-Range	)	
Communication Services in the 5.850-5.925	)	
GHz Band (5.9 GHz Band)	)	WT Docket No. 01-90
	)	
Amendment of Parts 2 and 90 of the	)	
Commission’s Rules to Allocate the 5.850-	)	
5.925 GHz Band to the Mobile Service for	)	ET Docket No. 98-95
Dedicated Short Range Communications of	)	RM-9096
Intelligent Transportation Services	)	
	)	

**To: The Commission**

**PETITION FOR RECONSIDERATION**

3M Company (“3M”), by its attorneys and pursuant to Section 1.429 of the Commission’s Rules, hereby requests reconsideration of the Commission’s *Report and Order* (FCC 03-324, released February 10, 2004)<sup>1</sup> in the above-captioned proceeding regarding Dedicated Short-Range Communication Services (“DSRC”) in the 5.850-5.925 GHz Band (“5.9 GHz Band”). In particular, while 3M generally supports the licensing and service rules for DSRC, the antenna height correction standard adopted by the Commission will unnecessarily restrict the implementation of a new emergency public safety technology, by requiring the deployment of several DSRC transmitters to cover an intersection where one transmitter would otherwise be sufficient. The standard is likely to double or triple the costs of deploying DSRC technology for state and local governments without any corollary interference protection benefit. Accordingly, 3M urges the

---

<sup>1</sup> 69 Fed. Reg. 46438 (August 3, 2004).

Commission to reconsider the antenna height correction factor it has adopted for DSRC roadside units (“RSUs”) with antennas between 6 and 15 meters above ground level, as part of Rule Section 90.377(b). The Commission should also eliminate the emission mask that it adopted for DSRC Class D devices as part of Rule Section 90.210 because it is unduly restrictive and will hinder the development of affordable public safety equipment.

## **I. Statement of Interest**

3M is a diversified technology company that is currently involved in the research and development of intersection priority control systems in the DSRC. These systems hold out the promise of improving public safety by facilitating the speed and efficiency with which first responders, such as police, fire departments and medical personnel, are able arrive at emergency situations. By sending a brief data burst, these emergency responders can control the traffic lights at intersections so that they can avoid traffic and arrive at the scene much more quickly. 3M has been an active participant in the Commission’s DSCRS proceedings (ET Docket No. 98-95 and WT Docket No. 01-90), having filed its initial comments on March 17, 2003,<sup>2</sup> and a detailed *ex parte* presentation on October 31, 2003 (“*Ex Parte* Presentation”). In addition, 3M was an active member of the DSRC Standards Writing Group.

## **II. Factual Background**

The FCC proposed service rules to govern the licensing and use of the 5.9 GHz Band for services in the Intelligent Transportation System (“ITS”) radio service in a

---

<sup>2</sup> 3M’s initial comments in the Commission’s DSRC proceeding were filed by Edmund J. Ring, 3M Intelligent Transportation Systems.

*Notice of Proposed Rulemaking and Order* that was adopted in WT Docket No. 01-90 and ET Docket No. 98-95 on November 7, 2002, and released on November 15, 2002.<sup>3</sup>

In an *ex parte* presentation filed with the Commission several months prior to the issuance of the *NPRM*, ITS America proposed an antenna height gain correction factor to calculate the necessary transmitter power reduction where a RSU antenna is 6 meters or higher above the roadway bed surface.<sup>4</sup> At paragraph 72 of this *NPRM*, the Commission asked for comments addressing ITS America's concerns about interference between licensees of adjacent or overlapping communication zones by seeking comment on the correction factor.

3M voiced its objection to the proposed correction factor in its comments, and in its more detailed *Ex Parte* Presentation on October 31, 2003. The *Ex Parte* Presentation explained that ITS America's interference concern was unfounded because, *inter alia*, it was based on an inappropriate propagation model applied, and the FCC and ITS America have proposed other measures that will eliminate interference.

Two weeks after 3M submitted its *Ex Parte* Presentation, ITS America filed its own *ex parte* comments on November 14, 2003, to report recent actions of the ASTM Working Group. In this regard, ITSA reported that the ASTM Standards Writing Group had voted in favor of deleting the overall 33 dBm restriction on the maximum EIRP for any RSU installation where the antenna height is six meters or greater above the roadway surface (*i.e.*, deleting proposed Rule 90.385(c)(2)).

---

<sup>3</sup> *Notice of Proposed Rule Making and Order*, 17 FCC Rcd 23136 (2002) (*NPRM*).

While this action addresses one of 3M's concerns about the antenna height correction factor, deleting the language of proposed Rule 90.385(c)(2) only eliminates the above-mentioned 33 dBm cap on EIRP for Roadside Units positioned 6 meters or greater above the roadway surface. It does not eliminate the correction factor from the proposed rules. The proposed rules still call for a reduction in the authorized EIRP where the radiation center of the RSU antenna is between 6 and 15 meters above the roadway in proposed Rule 90.385(c)(1).

The ITS *ex parte* also speaks to the proposed emissions mask for Class D DSRC devices, which 3M believes are too restrictive. ITS reports that the ASTM Working Group adopted a recommendation that the approval of licenses for Class 4 operation be delayed until evidence is provided that equipment compliant with the Class D emissions mask is commercially realizable.

**III. The Commission Should Reconsider the Antenna Height Correction Factor that it Adopted for DSRC Roadside Units as Part of Rule Section 90.377(b)**

3M respectfully requests that the Commission reconsider the antenna height correction factor for DSRC roadside units that was adopted as part of Rule Section 90.377(b). As demonstrated below, the correction factor is not supported by the record in this proceeding; the *Report and Order* failed to consider the adequacy of other interference protection measures that render the correction factor unnecessary; and the *Report and Order* failed to consider less restrictive alternatives proposed by 3M for DSRC communications by governmental entities.

---

<sup>4</sup> See Ex Parte Comments of the Intelligent Transportation Society of America: Status Report and Recommendations for Licensing and Service Rules for the DSRC Spectrum in the 5850-5925 MHz Band, WT Docket No. 01-90 (*filed* July 9, 2002).

*a. The Record Does Not Support the Antenna Correction Factor*

3M demonstrated in its comments and related *Ex Parte* Presentation that the antenna correction factor proposed by ITS America (and ultimately adopted in the *Report and Order* ) will require a substantial power and operational range reduction for a public safety RSU antenna above 6 meters, thereby negating the original intent of allowing higher power operations for public service operations. Based on 3M's product research and development, this standard is too restrictive. In order to facilitate effective communications between emergency vehicles and the RSU controlling an intersection, it will often be necessary to mount the RSU antenna higher than 6 meters. Current priority control systems are typically installed between 5 and 8 meters depending upon the existing intersection infrastructure. The significant power decreases dictated for antenna heights between 6 and 15 meters will in many cases require the deployment of multiple antennas to control a single intersection, which can double or triple the costs of deploying this technology that must be incurred by cash-strapped state and local governments. This will constitute an unnecessary cost impact on the Public Safety community, especially if 2, 3 or 4 intersection RSUs would be required where one RSU, optimally located, could provide the same capability. See 3M *Ex Parte* Presentation at pp. 3-4. 3M also demonstrated that the basis for ITS America's proposed correction factor, the "two-ray propagation" model, was flawed and inapplicable to typical urban and suburban roadway conditions, where traffic lights are likely to be deployed. In particular, the two-ray model does not take into account the scattering of signal caused by the curvature of the road surface (for drainage purposes), and the blockage and/or absorption of signal caused by vehicles, foliage and buildings. See 3M *Ex Parte* Presentation at pp. 5-7.

The *Report and Order* did not address the details of 3M's showing, but instead concluded as follows:

The record before us, as well as our experience with land mobile operations generally [citing to 47 C.F.R. § 90.205], persuades us that an antenna height correction factor for DSRC is appropriate to minimize the potential for interference. Although 3M raises concerns focused largely on the specific correction factors recommended by ITS America, the record before us does not include sufficient technical information to support adoption of any other correction factor.<sup>5</sup>

It is respectfully submitted that the record in this proceeding does *not* support the adoption of the correction standard, for the following reasons:

1. The ASTM standard for DSRC did *not* include a correction factor.
2. 3M's comments and *Ex Parte* Presentation demonstrated that the two-ray propagation model that formed the basis of ITS America's proposal is flawed in this application;<sup>6</sup> and that the independent technical report prepared by Technocom for the DSRC Standards Writing Group showed that the two-ray model significantly overstates the possibility of interference, based on field measurements performed by Technocom. See 3M *Ex Parte* Presentation at pp. 5-6.
3. Rule Section 90.205 (cited by the Commission as supporting the adoption of a correction factor) is inapposite. This rule section governs the operation of *high power* land mobile systems that are awarded a mobile service area based on a reliable signal strength. Such systems are generally designed to operate with omnidirectional antennae, and to send out coverage as far and as wide as possible. DSRC systems will be *low power* systems (33 dBm equates to 2 watts); and will generally be designed to cover a small, discreet area (such as an intersection) using directional antennae. Section 90.205 does not apply a height/power limit to the operation of low power transmitters, even though such operations are allowed under the Part 90 Rules. See, e.g., Rule Sections 90.267(b) and (c).<sup>7</sup>

---

<sup>5</sup> *Report and Order* at para. 40.

<sup>6</sup> See 3M *Ex Parte* Presentation at pp. 5-7.

<sup>7</sup> Rule Sections 90.267(b) and (c) allow for low power use of 450-470 MHz frequencies. The Group A1 (available on coordinated basis) and A2 (available nationwide on uncoordinated basis) frequencies may operate fixed stations that are licensed as mobiles. The fixed stations may operate at up to 20 watts ERP on the low side of the frequency pair and 6 watts on the high side, and may use antennas up to 75 feet (23 meters) above ground. Also, there are a number of frequencies under the frequency table in section 90.35 of Industrial/Business pool with "limitation 11." This limitation provides that stations must be licensed as

4. 3M has demonstrated in the record how the proposed correction factor will be harmful to the public interest. 3M *Ex Parte* Presentation at p. 4.

In particular, 3M demonstrated that the cost increases created by the proposed correction factor would be adverse to the public interest. Congress has mandated that the standards for DSRC must “promote interoperability among *and efficiency of*, intelligent transportation system technologies implemented throughout the United States.”

Transportation Equity Act for the 21<sup>st</sup> Century, Pub. L. No. 105-178, 112 Stat. 107 (1998)(“TEA 21”). In passing TEA 21, Congress concluded that intelligent transportation systems can mitigate surface transportation problems in a cost-effective manner, while reducing costs and negative impacts on communities and the environment. *Id.* at § 5202. Adopting the proposed antenna height correction factor would run counter to Congress’ intent to promote efficiency and reduce costs, if public safety agencies must incur significantly greater equipment and engineering costs to comply with the correction factor. ITS America’s interference concerns do not outweigh this detrimental affect. Moreover, ITS America’s concerns are unfounded, because (1) the propagation model applied by ITS America is inappropriate for most intersections controlled by a traffic light, and appears to have been inaccurately interpreted; (2) traffic light preemption signals are of very short duration, and are high priority safety communications; (3) the power reduction proposed by ITS America is arbitrary and unduly restrictive; and (4) the Commission and ITS America have proposed other measures that will eliminate interference. See 3M *Ex Parte* Presentation at pp. 4-9.

---

mobiles, but licensees may operate fixed stations under the mobile license. Output power is limited to 2 watts (without a specific ERP limit) and distance between control point and center of the antenna may not exceed 25 feet. However, this would not prevent a fixed station from being placed on a tall building.

In light of the foregoing, the record in this proceeding does not support the imposition of an antenna height correction factor. While the Commission concludes that “the record before us does not include sufficient technical information to support adoption of any other correction factor”, this statement assumes that some sort of antenna correction factor is needed to begin with. As demonstrated above, this is not the case. The Commission must supply a reasoned basis explaining why it chose to adopt a certain rule or rules. Schurz Communications, Inc. v. Federal Communications Comm'n, 982 F2d 1043, 1049 [71 RR 2d 693] (7th Cir. 1992). Post-hoc rationalization is not a suitable substitute for reasoned rulemaking, and support for the agency's action must exist in the rulemaking record. Coastal Tank Lines, Inc. v. Interstate Commerce Comm'n, 690 F2d 537, 543 (6th Cir. 1982) (citing Burlington Truck Lines, Inc., 371 US at 168). As in Schurz Communications, the question in this case is not whether the FCC has the authority to place certain restrictions on DSRC operations, but whether the FCC "has said enough to justify, in the face of the objection lodged with it, the particular restrictions that it imposed . . . ." Schurz Communications, Inc., 982 F2d at 1049. Unfortunately, the *Report and Order* in this proceeding does not justify the antenna correction factor adopted in Rule Section 90.377.

***b. The Commission Failed to Consider the Other Measures That It Adopted to Eliminate Interference***

ITS America argued in this proceeding that the antenna height correction factor is necessary to prevent “interference” to other DSRC licensees. However, as 3M observed in its *Ex Parte* Presentation (at pp. 8-9), the Commission has throughout this proceeding contemplated the adoption of several other measures (based on the recommendations of

ITS America and the DSRC Standards Writing Group) that will address any interference concerns, regardless of whether or not an antenna height correction factor is adopted.

The Commission did in fact adopt various interference protections, including:

- (1) Rule Section 90.377(c), which requires DSRC licensees to share non-reserved channels, and to prevent interference by monitoring prior to sending communications;
- (2) Rule Section 90.377(c), which mandates that public safety communications are to be assigned top priority.
- (3) Rule Section 90.375(b), which requires DSRC operators to file applications for prior Commission approval of the areas that will be served;
- (4) Rule Section 90.375, which requires DSRC licensees to register the location of each RSU through the Commission's Universal Licensing System (ULS), so that other DSRC users can identify the co-channel and adjacent-channel environment;
- (5) Rule Section 90.377(a), which provides that DSRC licensees "shall transmit only the power (EIRP) needed to communicate with an OBU within the communications zone and must take steps to limit the Roadside Unit (RSU) signal within the zone to the maximum extent practicable";
- (6) Rule Section 90.377(b), which imposes overall power limits requiring DSRC RSUs to operate at a very low power, compared to cellular, PCS, and broadcast stations;

- (7) Rule Section 90.377(d), which establishes a prioritization for public safety communications; and
- (8) Rule Section 90.377(e), which establishes an interference resolution protocol.

The adoption of these criteria render ITS America's interference concerns moot. Since the Commission mandates eight different interference protection measures, it should not be disruptive for DSRC systems to operate with a power level and antenna height that allows for cost-effective deployment. ITS America's concern is therefore more appropriately classified as a question of what the Commission's frequency re-use policy should be for DSRC, rather than an interference issue.

The Commission itself has acknowledged that “[g]iven the low power of RSUs and the interference mitigation provisions of the ASTM-DSRC standard, interference disputes among DSRC operations should be rare.” *Report and Order* at para. 61. It is respectfully submitted that the need for cost-effective deployment of public safety DSRC systems outweighs the ill-defined frequency re-use goal that apparently underlies the ITS America proposal.<sup>8</sup>

3M pointed out that other interference protection measures made the antenna height correction factor unnecessary. See 3M *Ex Parte* Presentation at pp. 8-9. However, the Commission did not acknowledge this point, much less address its validity.

---

<sup>8</sup> It should be noted that the 40 dBm limit for public safety users on Channel 184 already reflects a power reduction made as a compromise made by 3M and its potential governmental agency customers with the other members of the DSRC Standards Writing Group. This compromise was reported to the Commission as one of the Group's “consensus positions” in ITS America's July 9, 2002 *ex parte*, at pp. 68-69. To impose the antenna height correction factor (which was *not* a consensus position) on top of this reduced power limit would upset this compromise.

The Commission has an obligation to consider all "relevant factors" in rulemaking process, see Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 416, 28 L. Ed. 2d 136, 91 S. Ct. 814 (1971). The Commission must also demonstrate the rationality of its decision-making process by responding to those comments that are relevant and significant. See Grand Canyon Air Tour Coalition v. FAA, 154 F.3d 455, 468 (D.C. Cir. 1998); Home Box Office, Inc. v. FCC, 567 F.2d 9, 35 (D.C. Cir. 1977).

***c. The Commission Failed to Consider Less Restrictive Alternatives for Public Safety Entities***

At page 10 of its *ex parte* presentation, 3M asked the Commission to consider two alternatives to the antenna height correction factor. In particular, 3M suggested that the Commission adopt a blanket exception for public safety priority systems such as traffic light preemption operations; or apply a correction factor only to antennas mounted above 8 meters. Either of these alternatives would have lessened the adverse impact of the correction factor rule on governmental entities trying to deploy traffic light preemption systems. However, the *Report and Order* did not mention, much less discuss the merits of, either alternative. Administrative agencies must consider less restrictive alternatives proposed in a rulemaking proceeding. See Telocator Network of America v. Federal Communications Commission, 691 F.2d 525, 537 [52 RR 2d 637] (DC Cir 1982) (requiring FCC to consider reasonably obvious alternatives).

The Telocator case was among the precedent cited by the United States Court of Appeals for the Sixth Circuit in the Cincinnati Bell case (1995) (challenging the cellular eligibility rules for PCS) for the proposition that the FCC has an obligation to consider reasonably obvious alternatives. See Cincinnati Bell Telephone, et al. v. FCC, 69 F.3d

752 (6th Cir. 1995). *See also* Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto. Ins. Co., 463 US 29, 48 (1983) (holding that an "alternative way of achieving the [stated] objectives . . . should have been addressed and adequate reasons given for its abandonment"). Motor Vehicle Mfrs. Ass'n., 463 US at 48. To the extent that the *Report and Order* ignored less restrictive alternatives described in 3M's presentation, it violated the basic tenant of administrative law set forth in the above-cited precedent.

There are valid reasons to adopt one or both of the alternatives proposed by 3M. Because of the short duration of traffic signal preemption messages, and the relatively infrequent occurrence of such communications at a given intersection, signal preemption units should be able to operate at intersections in close proximity to each other without interference problems. More importantly, the communications by emergency vehicles preempting a traffic light are precisely the type of communications that are accorded top priority by Rule Section 90.377(c). Indeed, Rule Section 90.377 allows governmental systems to operate with a higher power than non-governmental entities, because communications on these systems are presumed to be public safety communications. *See* 47 C.F.R. § 90.377 (d)(2). The antenna height correction factor only serves to undercut this special power allowance for government entities that are trying to enhance public safety.

#### **IV. THE COMMISSION SHOULD MODIFY THE DSRC EMISSION MASK**

The Commission requested comments on the emission mask adopted for DSRC in Rule Section 90.210, based on concerns raised by Mark IV Industries. NPRM at para. 70. As 3M pointed out in its Comments (at p. 4), the emission mask adopted for DSRC Class D devices appears to be too restrictive, and may hinder the manufacture of

affordable public safety equipment. The Commission and the intelligent transportation service community have both emphasized the need for flexible use and technical standards for DSRC, without undue restrictions. See *NPRM* at para. 16; ITS America July 9, 2002 Ex Parte Comments at p. 32 (Recognizing that one of the policy objectives for a Commission-mandated technical standard is “to minimize regulation and assure that any regulations [the FCC does] adopt remain in effect no longer than necessary” [citing *In the Matter of Advanced Television Systems and Their Impact Upon the Existing Broadcast Service*, MM Docket No. 87-268, *Fifth Further Notice of Proposed Rulemaking*, 11 FCC Rcd. 6235, 6236 (1996)]).

Emission mask “K” of Rule Section 90.210, which applied only to the 902-928 MHz and 5850-5925 MHz bands, was more restrictive for out of band emissions than most other emission masks under Part 90. Emission mask K required that once a licensee’s signal extends outside of its band edge, the licensee must reduce power by  $55+10\log(P)$ . Most other systems under Part 90 require less attenuation. For example, emission mask B, which applies to most other bands for equipment with audio low pass filters requires the following attenuation: 25 db on any frequency removed from the assigned frequency by 50% to 100% of the authorized bandwidth; 35 db on any frequency removed from the assigned frequency by 100% to 250% from the assigned frequency; and  $43+10\log(P)$  on any frequency more than 250% away from the authorized frequency. Neither the *NPRM* nor industry comments offered any substantial reason why the emission mask for DSRC must be more restrictive.

ITS reported in its November 14, 2003 *ex parte* that the ASTM Working Group adopted a recommendation that the approval of licenses for Class 4 operation be delayed

until evidence is provided that equipment compliant with the Class D emissions mask is commercially realizable. This recommendation was made in light of 3M's concerns. In response, the *Report and Order* (at para. 37) modified Rule Section 90.210 to delete the previously-adopted emission mask K. Instead, the Commission concluded that "it is safer and in the public interest, given the current development of the band, to use the emission mask and formulas in the ASTM-DSRC Standard as the technical regulatory framework for the band." Rule Section 90.210 now cross-references Subpart M, which in turn incorporates by reference ASTM E2213-03. Unfortunately, this standard appears to raise the same concerns engendered in the former emission mask K. In particular, 3M is concerned that the emission mask contained in ASTM E2213-03 may be so restrictive as to make equipment development too expensive.

3M continues to believe that the current Class D emission mask characteristics have not been proven to be commercially realizable and we believe that the Commission should forego implementing the Class D emission mask until valid technical limits can be defined.

### **CONCLUSION**

Based on the foregoing, 3M urges the Commission to either eliminate the antenna correction factor of Rule Section 90.377 on reconsideration, since it will stifle the development and cost-effective deployment of important public safety technologies; or adopt one of the less restrictive alternatives proposed by 3M (i.e., an exemption for governmental entities using their DSRC system for safety-related communications or a correction factor that only applies above eight meters). 3M respectfully submits that, at

this nascent stage of DSRC development, it is too early to adopt an overly-restrictive antenna height correction factor for public safety equipment, especially in the absence of substantial evidence that such restrictions are necessary. The Commission should also refrain from applying the emission mask of Rule Section 90.210 to DSRC communications until it is verified to be commercially realizable.

Respectfully submitted,

**3M COMPANY**

/s/ John A. Prendergast

John A. Prendergast  
D. Cary Mitchell  
Blooston, Mordkofsky, Dickens,  
Duffy & Prendergast  
2120 L Street NW, Suite 300  
Washington, D.C. 20037

Its Attorneys

Edmund J. Ring  
Intelligent Transportation Systems  
3M Company  
3M Center  
MS235-3F-08  
St. Paul, Minnesota 55144

Filed: September 2, 2004