BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Request by PTC-220, LLC for Waiver and Extension of Time to Construct and Request for Other Rule Waivers Regarding Part 90 220 MHz Licenses	)	**WT Docket No. 08-256**

To: The Federal Communications Commission

COMMENTS OF BNSF RAILWAY

BNSF Railway ("BNSF"), by its attorneys, hereby submits these Comments urging the Federal Communications Commission ("Commission") to grant PTC-220, LLC's ("PTC-220") Request for Waivers ("Request") seeking an extension of the upcoming construction deadlines applicable to its 220 MHz band licenses and a waiver of certain licensing requirements.[1] Grant of the Request is vital to the safe and efficient operations of the nation's railroad industry and will promote the efficient use of 220 MHz band spectrum.

I. Background

For more than 150 years, BNSF has been providing rail transit services for a variety of goods and shippers. Today, BNSF employs 40,000 people and operates 6,700 locomotives and an average of 220,000 freight cars on railroad lines that cover 32,000 route miles. Products shipped by BNSF include grain and other crops, mail, clothing, appliances, coal, automobiles,

[1] *See* Wireless Telecommunications Bureau Seeks Comment on Request by PTC-220, LLC for Waiver and Extension of Time to Construct and a Request for Other Rule Waivers Regarding Part 90 220 MHz Licenses, *Public Notice*, DA 08-2807, WT Docket No. 08-256 (rel. December 24, 2008).

lumber, chemicals, metals... the list is endless. In 2007, BNSF transported 5 million truck trailers or containers by rail, effectively removing an equivalent amount of traffic from the nation's highways. Each BNSF train can move one ton of freight 423 miles on a single gallon of diesel fuel making rail the most environmentally friendly form of surface transportation available – three to four times more fuel efficient than trucking.

BNSF continuously strives to increase the safety and efficiency of its transportation services. Positive train control significantly advances these goals.

Positive train control acts as a safety net to prevent track authority and speed limit violations and to reduce the potential for train accidents. The technology uses the latest in wireless communications to transmit train movement information between locomotives and a network operations center, evaluating movement related information from the locomotive and comparing it against information such as authority limits, work zones, and speed restrictions. The positive train control system also checks track side communications points for data regarding broken rails, proper switch alignment and signals, using this information to calculate locomotive speed and braking requirements. Positive train control has the capability to warn a locomotive engineer to reduce speed and, if the warning is not followed, the system can automatically brake the locomotive, potentially avoiding an accident.

Positive train control represents the future of railway safety and efficiency.

II. The Commission Should Grant PTC-220's Request

BNSF urges the Commission to grant PTC-220's Request and extend the construction deadlines applicable to PTC-220's 220 MHz licenses while waiving certain licensing rules necessary to allow the effective implementation of positive train control. BNSF strongly agrees with PTC-220 that the requested extension and waivers are in the public interest, will promote

technological advancements by critical infrastructure, and will result in efficient use of the 220 MHz band.[2]

PTC-220's Request is well conceived and supports the need for an extension of the construction deadlines. Positive train control carries the promise of dramatically improving rail safety and efficiency, but implementing positive train control technology in the 220 MHz band will take time and resources. BNSF agrees with PTC-220 that failure to extend the construction deadlines could divert needed investment in positive train control technology towards less effective stopgap communications simply to satisfy construction obligations.[3] Requiring the construction of stopgap systems for the sole purpose of meeting construction standards will result in an inefficient use of resources and ultimately will delay the implementation of positive train control technology.

BNSF also agrees with PTC-220 that extension of the construction deadlines will not result in spectrum warehousing.[4] PTC-220's Request is driven by the need to satisfy the requirements of the Rail Safety Improvement Act of 2008, which requires certain rail carriers to implement positive train control by December 31, 2015.[5] BNSF notes that the Federal Railroad Administration ("FRA") "strongly supports" PTC-220's Request.[6] It is difficult to imagine a licensee providing the Commission with clearer evidence that its spectrum will be deployed in the public interest.

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[2] *See* Request at 2-3.

[3] *See* Request at 8.

[4] *See* Request at 11.

[5] *See* Rail Safety Improvement Act of 2008, Pub. L. No. 110-432, § 104, 122 Stat. 4848 (2008).

[6] *See* Letter from Clifford C. Eby, Acting Administrator, FRA, to Marlene H. Dortch, Secretary, FCC (December 15, 2008) (Enclosed as Exhibit A).

Further, BNSF notes that licensees in the 220 MHz band historically have been faced with numerous technological challenges and lack of equipment availability, which have delayed service deployment. The Commission previously recognized this difficulty by extending the five-year construction deadline for 220 MHz band Phase II licensees for approximately three years until November 5, 2007.[7] At that time, however, the Commission declined to extend the ten-year construction deadline (as early as March 22, 2009), resulting in a second construction window of as little as 16 months.

In 2004, the Commission recognized that "technical and equipment challenges in this band are widespread," and that technologies were still being developed to make use of the band.[8] With the 2009 construction deadlines fast approaching, however, licensees do not have adequate time to fully implement recently developed technologies, in part thwarting the purpose of the Commission's previous extension. The Commission should recognize that the 220 MHz band's "late start" presents a unique case where extension requests should be viewed more favorably than might otherwise be the case.

Finally, BNSF agrees with PTC-220 that grant of waivers of sections 90.735, 90.717, 90.713, and 90.715 is in the public interest and that strict application of these rule sections would be inequitable and unduly burdensome.[9] Waiver of these rule sections is necessary in PTC-220's view to allow the use of positive train control in the 220 MHz band. Further, the Commission's treatment of the 220 MHz band has significantly evolved since the rule sections in question were enacted. Rules regarding station identification, commercial use, and base/mobile frequency

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[7] Request of Warren C. Havens for Waiver or Extension of the Five-Year Construction Requirement For 220 MHz Service Phase II Economic Area and Regional Licensees, *Memorandum Opinion and Order*, 19 FCC Rcd 12994 (July 13, 2004).

[8] *Id.*

[9] *See* Request at 18-25.

allocations restrain licensee flexibility and provide little, if any, public interest benefit in the context of a geographically licensed, nationwide system such as PTC-220's.

III. Conclusion

For the forgoing reasons, BNSF requests that the Commission grant PTC-220's Request, extend the construction deadlines applicable to PTC-220's 220 MHz licenses and waive certain licensing requirements under the Commission's rules.

Respectfully submitted,

BNSF RAILWAY

Orest Dachniwsky
Senior General Attorney
500 Lou Menk Dr., AOB-3
Fort Worth, TX 76131

By: Jack Richards

Jack Richards
Gregory E. Kunkle
Keller and Heckman LLP
1001 G Street
Suite 500 West
Washington, D.C. 20001
(202) 434-4100

Its Attorneys

Date: January 23, 2009

EXHIBIT A

U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

DEC 15 2008

The Honorable Marlene H. Dortch
Secretary
Federal Communications Commission–Office of the Secretary
445 12th Street SW
Washington, DC 20554

Mr. Joel Taubenblatt
Deputy Bureau Chief
Federal Communications Commission–Wireless Telecommunications Bureau
445 12th Street SW
Washington, DC 20554

Subject: Support of Waiver Request from PTC-220, LLC for Waivers of Certain 220 MHz Rules (File Number 0003634450)

PTC-220, LLC (PTC-220) has submitted to the Federal Communications Commission (Commission) waiver requests for certain 220 MHz rules at Title 47 Code of Federal Regulations (CFR), specifically:

- 47 CFR 90.767 (Construction and implementation of EA and Regional licenses)
- 47 CFR 90.769 (Construction and implementation of Phase II nationwide licenses)
- 47 CFR 90.743 (Renewal expectancy)
- 47 CFR 90.715 (Frequencies available)
- 47 CFR 90.713 (Entry criteria)
- 47 CFR 90.717 (Channels available for nationwide systems in the 220-222 MHz band)
- 47 CFR 90.735 (Station identification)

The Federal Railroad Administration (FRA) strongly supports PTC-220's request for waiver of these rules.

The Rail Safety Improvement Act of 2008 (PL 110-432) requires all Class I freight rail carriers and any entity providing regularly scheduled intercity or commuter rail passenger transportation to implement Positive Train Control (PTC) systems by December 31, 2015. PTC systems are complex computer-based systems that provide for avoidance of train collisions, enforcement of speed limits, and protection of maintenance-of-way personnel

within the limits of their authorized work zone. The successful operation of these systems relies on uninterrupted wireless communication between the geographically distributed constituent parts. PL 110-432 also requires that all railroads required to implement PTC provide plans for interoperability of these systems. To provide interoperability, the implementing railroads must be able to communicate with each other using shared communications links with sufficient bandwidth operating at common frequencies that are not subject to interference.

PTC-220 has proactively procured access rights in the 220 to 222 MHz frequency band range to support interoperable PTC operations. However, the unique distributed nature of railroad operations, which utilizes a combination of fixed and mobile transmitters, would make it difficult, if not impossible, for the railroads to comply with all of the Commission's regulations regarding transmissions in these frequency bands.

The Commission's approval of the waiver requests would allow the railroads to concentrate their deployment efforts along the railroad right-of-way. Compliance with the short statutory timeframe, given the size of the rail network (approximately 106,000 miles of the national network of 141,000 miles) that must have communications coverage, requires the railroads to concentrate their efforts on these locations.

Extension of the time allowed by the Commission for the railroads to extend their build-out completion beyond the current deadline date of March 2009 is also required. The level of effort required by the railroads to deploy the communications infrastructure, modify the necessary wayside devices (such as signal, switches, and highway-rail grade crossings), modify the dispatching offices, and install the required onboard equipment is, in the opinion of FRA, unobtainable, given their current manning. In view of the rail industry's current shortage of trained and qualified personnel, the railroad would not be able to successfully augment their existing workforce to meet the March 2009 date. Further diversion of all qualified and available personnel to meet a March 2009 date would require the diversion of scarce resources from completion of the other required implementation tasks, including setting and testing the interoperability standard first. This would eliminate the near-term implementation of PTC into high-risk areas and delay installation throughout the rail network.

PTC communications in the 220 to 222 MHz frequency range involve the continuous transmission of digital control data. To avoid communications congestion in high rail-traffic density areas, such as the Southern California Basin or the Chicago Metropolitan area, the railroads need the capability to maximize their use of their assigned spectrum. This would require allowing the railroads to operate their communications at any of the assigned frequencies in their authorized frequency range. Additionally, since the data transmissions do not carry information readily interpreted by people, station identification does not provide any meaningful information to any person listening to the broadcast, but could actually be detrimental to the PTC system operation by interrupting the critical communications flow.

Recent rail accidents in which large numbers of the general public were killed or injured were determined in the after-accident investigation to have been PTC-preventable, leading to

the mandatory deployment of PTC in PL 110-432. FRA believes that any actions that facilitate the installation and operations of these critical systems are in the best interest of the public, and requests the Commission's assistance in facilitating deployment of these actions.

My staff is at your disposal to address any questions the Commission may have regarding regulatory requirements for PTC systems as well as their design, implementation, and operation. Please feel free to contact me or my Associate Administrator for Safety, Ms. Jo Strang, at (202) 493-6300 (e-mail: Jo.Strang@dot.gov).

Sincerely,

Clifford C. Eby
Acting Administrator