Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Request of PTC-220, LLC for Waivers of Certain 220 MHz Rules	)	**WT Docket No. 08-256**
	)	
	)	
Construction Progress Report	)	

To: Chief, Wireless Telecommunications Bureau

PTC-220, LLC
CONSTRUCTION PROGRESS REPORT

I. INTRODUCTION

PTC-220, LLC ("PTC-220") submits this Construction Progress Report to satisfy the requirements of paragraph 16 of the Memorandum Opinion and Order ("*Waiver Order*") adopted by the FCC on June 25, 2009.[1] This Report details the progress made during the past six months in implementing the Systemwide Build-out Plan (the "Build-out Plan") submitted by PTC-220 on November 1, 2010 in the above-referenced docket. The Build-out Plan explained how PTC-220's 220 MHz licenses ("Licenses") would be used in deploying a nationwide positive train control ("PTC") system, as required by Federal statute. The construction of the Licenses will be undertaken in large part by each of PTC-220's member railroads, although PTC-220 will also coordinate construction activities by non-member railroads.

[1] *Request of PTC-220, LLC for Waivers of Certain 220 MHz Rules*, Memorandum Opinion and Order, 24 FCC Rcd 8537 (2009).

II. NEW PTC-220 MEMBERS

On August 17, 2011, the ownership of PTC-220 expanded to include subsidiaries of three new member railroads: Canadian National Railway Company ("CN"), Canadian Pacific Railway Limited ("CP"), and The Kansas City Southern Railway Company ("KCS"). PTC-220 ownership now encompasses all seven Class I railroads operating in the U.S., including subsidiaries of BNSF Railway Company ("BNSF"), CSX Corporation ("CSX"), Norfolk Southern Corporation ("NS"), and Union Pacific Corporation ("UP"). On October 24, 2011, PTC-220 submitted into this docket redacted copies of the new members' Positive Train Control Implementation Plans ("PTCIPs") that have been approved by the Federal Railroad Administration ("FRA").[2] The addition of the new members will facilitate the broader deployment of PTC-220's spectrum for PTC.

III. SITE BUILD-OUT ACTIVITY

As explained in Section II.B of the Build-out Plan, the actual installation of PTC radios, including base stations and wayside stations, will not begin until the radios are available in production quantities some time in 2012. However, PTC-220's member railroads are well underway in preparing sites for the installation of radio equipment. This advance preparation includes any or all of the following tasks: coverage predictions, site selection, installation of antenna systems, upgrade of antenna structures, upgrade of site power supplies, and clearing rack space for the radios. The table below shows by state and by railroad the cumulative number of base station sites where the preparatory work is complete or substantially complete.

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[2] The PTCIP for KCS has only received provisional approval to date. Unredacted copies of the PTCIPs, which contain Sensitive Security Information, were hand delivered to FCC staff with a request for confidential treatment.

State	BNSF	CN	CP	CSX	KCS	NS	UP
AL				14		12	
AR	2						
AZ							
CA	41						53
CO							
FL				3			
GA				8		1	
IA	17		7				
ID	8						
IL	13			6	3		4
IN				16			
KS	10				3		
KY				7			
LA	6	3			25	2	
MA				1			
MN	22						
MO	17						
MS		4			13	9	
MT	36						
NC				11		3	
ND	18						
NE	7						9
NM							
NY			7	10			
OH				19		5	
OK							
OR							
PA				2		7	
SC				3		9	
SD	2						
TN	2			5		11	
TX	11						
WA	44						
WY							6
VA				18		1	
Total	256	7	14	123	44	60	72

Wayside radios, where used, will be deployed along with their associated base sites, as described in Section II.C of the Build-out Plan. Any necessary wayside preparatory work is also proceeding roughly in parallel with base station site work.

IV. TTCI ACTIVITIES

As noted in the last progress report, Transportation Technology Center, Inc. ("TTCI") was retained to perform a range of duties related to the management of PTC-220's spectrum holdings and to the design of PTC communications networks. One specific task assigned to TTCI was to determine the overall spectrum needs for congested PTC areas. To this end, TTCI was instructed to find the total spectrum requirements for two particularly congested areas: the Los Angeles Basin and the Chicago area.

The Los Angeles Basin was chosen because of the commitment that UP and BNSF (the Class I operators in that area) have made to implement PTC in the area by the end of 2012. TTCI is collaborating with the Southern California Regional Rail Authority ("SCRRA") on the PTC network design for the Los Angeles area. Chicago was selected for this early study because it is believed to be the worst-case congested area in the U.S., with all seven Class I operators and a number of smaller railroads operating there. TTCI has just concluded the data-gathering stage of this study and is beginning the complex task of network design. As of the date of this report, PTC-220 has received tentative results for the Los Angeles Basin, and expects the Chicago results by mid-November.

In addition to the spectrum needs studies, TTCI is currently working to expand its Frequency Application Management System ("FAMS") database to include information needed for PTC operations. FAMS is the system that will hold and manage all PTC channel and slot assignments. The FCC will have access to the database.

V. EQUIPMENT DEVELOPMENT

Meteorcomm LLC ("Meteorcomm"), PTC-220's radio design vendor,[3] continues to make progress in developing a prototype data radio technology platform to meet the requirements for the PTC communications system. Recently Meteorcomm successfully demonstrated radio platforms working in a closed track environment at TTCI in Pueblo, Colorado. The third iteration of field radios began shipping in October 2011 to support open track testing in a working railroad environment. Meteorcomm will assess the results of open track testing and plans to deliver pre-production radios beginning in late Q1 2012. In parallel, Meteorcomm continues to refine software and firmware to enable the radios to meet PTC network performance requirements. Firmware and software development are on track to support railroad certification in 2012. It is expected that a limited number of manufacturers will begin radio production in Q2 2012.

VI. OPEN TRACK TESTING

As indicated above, the railroads are preparing for open track testing beginning in November. Open track testing consists of two sets of tests: nineteen specific open track tests which will be conducted by personnel from multiple railroads and Meteorcomm, followed by validation testing conducted with internal BNSF PTC teams. The PTC open track testing will be conducted on the BNSF Mendota, IL subdivision and involve the use of two base stations located at Eola, IL and Victor, IL, along with ten wayside locations. Two PTC-equipped locomotives will also be used in the tests. The equipment installation and testing will be conducted from November 2011 to January 2012.

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[3] Meteorcomm, which designs radio software for interoperable PTC communications systems, is jointly owned by BNSF, CSX NS and UP.

VII. CONCLUSION

As described above, PTC-220 continues to make steady progress in implementing its Build-out Plan. Based on progress made to date, PTC-220 foresees no obstacle in satisfying its 2014 deadline for providing substantial service.

Respectfully submitted,

/s/ Michele C. Farquhar

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