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

In the Matter of	)	
	)	
	)	
Establishment of Public Service	)	
Pool in the Private Mobile	)	RM -- 9405
Frequency Pool Below 800 MHZ	)	

To: The Commission

REPLY COMMENTS OF THE ASSOCIATION OF AMERICAN RAILROADS

The Association of American Railroads ("AAR"), by its undersigned counsel, pursuant to Sections 1.4, and 1.405,[1] of the Commission's rules and in response to the *Public Notice* released November 23, 1998,[2] hereby respectfully submits these reply comments to the above captioned petition for rule making.

I. Background and Preliminary Statement

AAR is a contributing signatory to the Petition that is the subject of this proceeding and fully supports a grant of the relief requested therein. AAR has reiterated its support for the Petition in its initial comments in this proceeding,[3] and is

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[1] *See* 47 C.F.R. §§ 1.4, 1.405.

[2] *Public Notice*, Office of Public Affairs Reference Operations Division Petitions for Rule Making Filed, Report No. 2306, (released November 23, 1998).

[3] *See* Comments of Association of American Railroads (December 23, 1998) ("AAR Comments").

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pleased to have this opportunity to reply to a number of the Comments filed by other interested parties.

From AAR's perspective, the Petition and the record it has generated fully support a finding that there is an immediate threat to the vital communications systems of railroads, pipelines, and utilities -- the nation's Critical Infrastructure Industries ("CII"). Accordingly, service to the public interest demands the creation of a Public Service Pool in the bands below 800 MHz that will ensure the safe operation of those entities specifically identified by Congress and the Commission as performing "critical, public safety related services."[4/]

Although AAR believes that there is adequate support in the record for a grant of the Petition, certain Comments filed in opposition to the Petition present arguments that must be rebutted. These arguments are generally expressed as follows; 1) CII are not unique in their safety function; 2) interference problems facing the CII can be addressed through coordination procedures; and 3) mandatory interference contour requirements will protect CII communication systems. As expressed more fully below, these arguments mischaracterize the nature of the relief requested and do not address the fundamental interference problems facing the CII.

[4/] *Second Report and Order*, PR Docket No. 92-235, 12 FCC Rcd 14307 at ¶ 11 (1997) (Identifying the Railroad, Power, and Petroleum services as performing an "almost quasi-public safety function".)

II. The Public Safety Function of the Critical Infrastructure Industries has Been Affirmatively Identified by Both the Commission and Congress

A number of Commenters in this proceeding oppose the creation of a public service pool on the ground that the basis for eligibility in such a pool is too narrow. Specifically, these Commenters argue that either their own safety functions warrant inclusion in the Public Service Pool, or that the entire class of Industrial/Business eligibles employ private wireless systems for safety purposes and so the creation of a distinct pool for the petitioners is inequitable.[5] Representative of the general theme of these comments is the following quote from PCIA:

> The focus in recent years has been on the safety function of radio systems employed by utility, oil or railroad companies. However it is misguided to believe that these functions are confined to these industries. Rather, virtually every type of private radio system has a safety aspect which is crucial. It is only the type of safety that varies from system to system.[6]

AAR does not dispute the fact that private wireless infrastructure plays an important safety role in a variety of industries. However, the relative safety functions of the various private wireless entities are not at issue in the Petition. What is at issue is the need to protect those Part 90 eligibles that have already been identified by the Commission as performing a vital safety function that requires special protection.

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[5] *See* Comments of Aeronautical Radio, Inc. at 2 ("ARINC Comments"); Comments of Forest Industries Telecommunications at 2 ("FIT Comments"); Comments of Hewlett-Packard Company at 2 ("HP Comments"); Joint Opposition of the Industrial Telecommunications Association, Inc. et al. at 11-14 ("ITA Comments"); Comments of MRFAC, Inc. at 4 ("MRFAC Comments"); Comments of the Personal Communications Industry Association, Inc. at 11-26 ("PCIA Comments").

[6] PCIA Comments at 13.

In the "Refarming" proceeding the Commission found "broad support in the comments to protect operations in several radio services (Railroad, Power, and Petroleum) where radio is used as a critical tool for responding to emergencies that could impact hundreds or even thousands of people."[emphasis added][7] The Commission went on to recognize that there is a level of immediacy in the safety needs of the CII's communications systems that demands absolute system integrity: "The nature of [CII's] day-to-day operations provides little or no margin for error and in emergencies they can take on an almost quasi-public safety function. Any failure in their ability to communicate by radio could have severe consequences on the public welfare."[8]

The critical safety function of these systems has also been recognized by Congress which specifically identified utilities, railroads, and pipelines as included within the "public safety radio services" that are exempt from the Commission's auction authority.[9] Congress recognized that these services rely on their internal wireless communications systems as an integral component in the safe operation of their industries. Any loss of communications is not measured by inconvenience, but by immediate and severe consequences. For example, railroads employ automatic defect detectors that detect track anomalies that present a hazard. If these communications

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[7] *Second Report and Order* at ¶ 41.

[8] *Id.*

[9] *See* H. Rpt. 105-49, *Congressional Record*, p. H6173 (June 29, 1997).

were interrupted, a rock slide or other track obstruction may go undetected with disastrous results.

As stated above, AAR does not dispute the fact that internal communications systems are employed for safety purposes in a variety of industries. However, the issue raised by the petition is not which private wireless services perform a safety function, but whether the Commission succeeded in meeting its stated objective in the refarming proceeding to protect operations in the railroad, pipeline, and utility services. In fact, the Commission has failed to meet that objective, as has been amply demonstrated in the Petition.

III. Frequency Coordination Procedures Fail to Protect Incumbent CII Operations on Shared Frequencies in the Industrial/Business Pool

To protect the CII services from interference from others in the Industrial/Business pool, the FCC requires any entity that applies for channels formerly allocated for the exclusive use of the power, petroleum, and railroad industries to obtain coordination from the certified frequency coordinator for the affected industry. Several Commenters highlight this procedure as the complete solution to any and all interservice interference problems.[10/] However, as the Petition demonstrates, and as discussed further below, these Commenters fail to recognize that this procedure is completely ineffective for the protection of incumbent CII systems operating on channels that were previously shared -- pursuant to interservice concurrence

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[10/] *See* ITA Comments at 10; MRFAC Comments at 8; PCIA Comments at 7; Opposition of Petroleum Communications Inc. at 2 ("PetroCom Comments").

procedures -- but are now freely assignable to <u>any</u> applicant within the Industrial/Business pool.

Prior to the pool consolidation in refarming, the CII were eligible for distinct pools of frequencies -- available only to like-eligibles -- as well as frequencies shared among several different industries. And although these shared frequencies were available to disparate industries, inter-service coordination procedures protected against the certification of interfering applications.[11/] The following examples illustrates the protection afforded in the pre-refarming environment, compared with the potential for interference under pool consolidation.

Prior to the pool consolidation in refarming, frequency 452.900 MHz was available for assignment only to applicants eligible in the Railroad Radio Service. Frequency 452.875 MHz, on the other hand, was shared between both the Railroad and Motor Carrier Radio Services. Under the interservice sharing rules a motor carrier applicant could be assigned frequency 452.875 MHz. However, before a motor carrier application could be certified on this frequency, AAR -- the certified frequency coordinator for the Railroad Radio Service -- would need to concur in the coordination. If AAR found that the proposed system would interfere with an incumbent railroad system on 452.875 MHz, the motor carrier application could not be coordinated, and the applicant would need to be assigned an alternative frequency. This interservice

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[11/] *See* 47 C.F.R. § 90.175 (1996) ("When frequencies are shared by more than one service, **concurrence must be obtained** from the other applicable certified coordinator."[emphasis added]).

coordination requirement ensured that vital communications systems would be protected from interference, even on shared channels.

In the post-refarming environment both channels 452.900 MHz and 452.875 MHz have been placed in the Industrial/Business pool. Prior to pool consolidation, 452.900 MHz was limited to railroad use. Although it is now in the Industrial/Business pool, AAR has exclusive coordination authority on the frequency, and can refuse to coordinate any application that would interfere with an incumbent railroad system. Frequency 452.875 MHz, on the other hand, can be coordinated by any certified frequency advisory committee, for any eligible service, irrespective of whether or not there is an incumbent railroad system deployed on the frequency in a nearby geographic area. In fact, with the removal of the various service codes as a part of the pool consolidation, it may be impossible for another coordinator to even know whether a co-channel incumbent is a railroad or some other service entirely.[12/]

As a result of the loss of this interservice coordination requirement, an industrial/business application for 452.875 MHz that might cause interference to an incumbent railroad system could be certified and submitted to the Commission for grant without concurrence by AAR. AAR does not wish to suggest that any other coordinators are knowingly certifying interfering applications,[13/] but rather that these

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12/ *See Second Report and Order* at note 43.

13/ And in fact, AAR has yet to be notified of any harmful interference episodes. However, AAR believes that the threat of interference -- given the severity of the possible consequences -- is sufficient to justify Commission action.

coordinators do not have the requisite understanding of the unique characteristics of railroad systems to recognize the potential for interference.

Similar examples are found in both the pipeline and utility services. Prior to refarming, the Petroleum Radio Service had exclusive use of 454.000 MHz, but shared 454.175 MHz with the Forest Products, Manufacturers, Power, and Telephone Maintenance Radio Services. Likewise, prior to refarming the Power Radio Service enjoyed exclusive use of 451.150 MHz, but shared 451.175 MHz with the Forest Products, Manufacturers, Petroleum, and Telephone Maintenance Radio Services. Just as in the example cited above, pipelines and utilities face the prospect of increased interference on the channels they once successfully shared under the interservice coordination rules.

It is vital that these formerly shared frequencies be afforded the same protection from interference as those frequencies that were formerly assigned for the exclusive use of CII eligible applicants.

IV. Mandatory Minimum Interference Contours Will Not Adequately Protect Incumbent CII Systems

Some Commenters propose that mandatory minimum interference contours represent a solution to the interference problems facing the CII. For example, ITA proposes that the Commission mandate a separation standard whereby the 21 dBμ service area contour of a proposed system may not overlap the 39 dBμ interference

contour of an incumbent CII system.[14] This proposal, while certainly productive, would provide only a limited solution under limited circumstances.

Because of the unique geographic requirements of railroads, service area contours are an unlikely solution to their interference concerns. Railroads deploy "ribbon systems" that provide coverage along the entire length of railroad rights-of-way. These systems can run for hundreds, and in some cases, thousands of miles. To attempt to plot service and interference area contours along these entire systems would be entirely impracticable. Additionally, service area contours keyed to base station locations will provide no protection for portable-to-portable communications which are heavily employed by the railroad community for track maintenance crews and similar uses.

AAR concedes that service area contours will serve as an effective means to protect some incumbent CII systems, and in fact the establishment of protective service area contours is a key component of the Petition.[15] However, these protective service contours will serve only to complement the level of protection that a distinct service pool will provide the CII, and cannot serve as a viable alternative.

V. Conclusion

In the refarming proceeding, the Commission made clear its express intent to afford a heightened level of interference protection for the CII. Now it must determine whether it succeeded in its aim. AAR believes that the Commission's laudable

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[14] *See* ITA Comments at 17.

[15] *See* Petition at 25-27.

intentions from the refarming proceeding have, in fact, failed to offer the level of interference protection that the Commission intended. This lack of interference protection poses a particular threat with regard to those CII incumbent systems deployed on the frequencies that formerly were shared with other user groups and were subject to the interservice sharing rule.

Accordingly, AAR urges the Commission to reaffirm its commitment to the protection of railroad communications systems by granting the Petition and the relief requested therein.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing "Reply Comments" was sent by first-class mail, postage prepaid, to the following persons this 7th day of January, 1999.

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