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November 6, 2018

**Via Electronic Submission**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, SW  
Room TW-A-325  
Washington DC 20554

**Re: Notice of *Ex Parte* Presentation, WT Docket No. 17-200**

Dear Ms. Dortch:

The undersigned and representatives of the Ad Hoc Refiners Group ("the Group") met with Scot Stone, Becky Schwartz, Stana Kimball and Mel Spann (participating via teleconference) on November 2, 2018, to discuss the Group's position on the possible establishment of a 3 x 3 MHz band in the 900 MHz Band.<sup>1</sup> Dave Herdman, Don Poquette, and Rajiv Bhateja of Phillips 66 and Praful Joshi, Mary Carol Weichel, and Lucinda Lomas of Exxon Mobil participated via teleconference. The Group emphasized the availability of 900 MHz land mobile spectrum to support current and future expansion of existing trunked 900 MHz LMR systems at their refineries that operate 24/7/365.

The Group noted increased domestic output of refined petroleum products will continue to be achieved through increasing capacity at existing refineries either through physical expansion or process modifications and enhancements or both, as opposed to development of new refineries. Refinery expansions are multi-year projects; as various contractors participate in the plant expansions, portable radios operating on refiner frequencies are issued to the contractors to maximize communications on site with company staff as the refinery operations

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<sup>1</sup> The member companies of the Ad Hoc Refiners Group are Exxon Mobil Corporation, Marathon Petroleum Company, and Phillips 66. Each member operates 900 MHz LMR systems in support of operations at their refineries in the Houston, Texas area and one or more members operate 900 MHz LMR systems at refineries in Southern California, in the New York metropolitan area, as well as at refineries in other areas of the country. At the companies' major facilities, the number of portable units are counted in 1000-unit increments.

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continue apace with expansion projects. As a project is completed, additional full-time workers are brought on to support expanded operations.

The Group explained that their 900 MHz Band LMR systems are designed and built for capacity and coverage throughout the refineries and to accommodate peak demand/usage during adverse weather conditions (Hurricane Harvey) and other potential emergencies for which the companies must develop comprehensive response plans. During Hurricane Harvey's assault on the Houston and Texas Gulf coast areas in 2017, these private 900 MHz systems proved more reliable and resilient than wireline service and wireless services at the members' refineries.

Refinery LMR communications systems are self-contained – they have redundant power, towers, and antennas to sustain challenging weather events - and on-site staff respond to LMR system issues in real-time during storms and other emergencies. By contrast, LTE-based technology networks require constant connectivity back to a mobile switching center. When a storm knocks out a public LTE site or a mobile switching center, the whole network is impacted. Thus, real time restoration is more challenging on LTE networks.

900 MHz LMR systems are designed to provide excellent coverage within and across refineries containing heavy concentrations of metallic equipment and piping all of which impair reception of CMRS frequencies above 1 GHz. If 3<sup>rd</sup> party wireless networks were relied on for refineries, additional infrastructure would be required to maintain signal coverage throughout the refineries. Additional infrastructure may not even be feasible because cellular/LTE network transmitters often require fiber backhaul, which isn't always available at certain refinery facilities.

The members' representatives also noted that a 3 x 3 MHz band will not supply the bandwidth needed to support the "Refinery of the Future" that entails digitizing refinery operations enabling both real-time and interactive machine-to-machine communications and generating and transmitting massive amounts of data to support in-depth analytics. Member companies have researched existing and planned wireless technologies, concluding that bandwidths above existing 4G LTE networks will be necessary to support "Refinery of the Future" requirements.

In view of these considerations and the paucity of 900 MHz spectrum (unassigned or not held by pdvWireless) in critical metropolitan areas, the Group does not support mandatory relocation of existing 900 MHz LMR systems within the 900 MHz Band. The 900 MHz Band is the "land mobile band of last resort." The costs of mandatory relocation in terms of downtime and disruption to refinery operations and likelihood that licensees interested in 3 x 3 MHz channelization will push for narrowly-defined relocation costs, and potential, if not inevitable, disputes over allowable costs calling for FCC oversight, underscore significant drawbacks in a mandatory spectrum relocation. It is also noteworthy that "the service" that will be made

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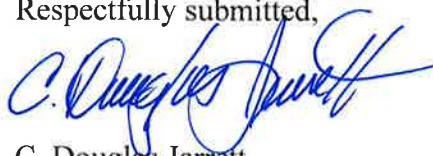
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available over the 3 x 3 MHz band is not defined. Opaque references that the 3 x 3 MHz systems will be offered on a “build to suit” basis indicates each lessee/assignee of the spectrum will define how it will use the spectrum. This is consistent with assignments and leases of spectrum under the Commission’s secondary market rules, not the delivery of a targeted, well-defined service intended to meet either the fixed or mobile requirements of private enterprises or critical infrastructure industries.

The Group restated the position expressed in its Comments in this proceeding: in congested metropolitan areas, 900 MHz narrowband assignments should be set aside for land mobile radio system expansions at refineries; imposing direct and indirect frequency relocation costs on critical infrastructure licensees who depend upon the narrowband 900 MHz assignments for operations and emergency response communications to achieve a 3 x 3 MHz band of limited utility is not in the public interest; and flexible bandwidths in the 900 MHz may benefit other licensees and could be implemented through voluntary negotiations, consistent with established secondary market rules and policies.

The Commission is respectfully requested to contact the undersigned with any questions.

Respectfully submitted,



C. Douglas Jarrett

cc: Scot Stone  
Becky Schwartz  
Stana Kimball  
Melvin Spann