



AMERICAN PETROLEUM INSTITUTE

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**Via Electronic Filing**

Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

Re: WT 18-120

Dear *Ms. Dortch*:

The Telecommunications Subcommittee of the American Petroleum Institute ("API"), urge the Federal Communications Commission ("Commission") to act on API's proposal allocate the 2.5 GHz Educational Broadband Service ("EBS") band to the oil and gas industry and other critical infrastructure user creating a forth window for the 2.5 GHz spectrum with priority over commercial use. In addition, API urges the Commission to allow preemptory emergency use of this spectrum by entities actively engaged in supporting an oil spill response. Making this spectrum available for offshore energy operations will promote spectrum efficiency in the Gulf of Mexico, provide much-needed operational and safety capabilities for thousands of offshore oil and natural gas workers, and ensure that emergency and cleanup efforts are supported with sufficient spectrum in the event of another incident in this area in the future.

Furthermore, without giving a dedicated window to critical infrastructure, we are against auctioning this spectrum as this would encourage speculators and middleman, driving up the costs, or making this spectrum cost prohibitive for normal operations for critical infrastructure or emergency response to incidents. By using census tracks, and giving priority to critical infrastructure, this will also enable critical infrastructure spectrum use onshore.

To summarize, API supports:

- 1) Small area licensing of any 2.5 GHz white space
- 2) White space licensing for the Gulf of Mexico, in (3) geographical areas as done in the Broadband Radio Service licensing
- 3) A priority filing window for Critical Infrastructure, including API members.

**BACKGROUND**

At the request of API, in its 2008 *Third Order on Reconsideration* in this proceeding ("*Third Order*"), the Commission reversed its previous position and established a Gulf Service Area for the Broadband Radio Service ("BRS") portion of the 2.5 GHz band, stating that it was "clear that establishing BRS service areas

in the Gulf (of Mexico) could provide a means for meeting an important communications need in a critical area, as well as enhance emergency communications in the region.”<sup>1</sup>

In the *Third Order*, the Commission also adopted a *Second Further Notice of Proposed Rulemaking* (“*Second Further Notice*”), seeking comment on the possibility of licensing EBS spectrum in the Gulf of Mexico similar to the regime established for BRS licensing.<sup>2</sup> The Commission noted that the Gulf of Mexico is an underserved area and that the 2496-2690 MHz band is one of the few bands available and adequate for operations in support of off-shore oil and gas facilities. At the same time, the Commission observed that EBS spectrum is unused offshore because “there are no schools or universities in the Gulf of Mexico.” The Commission also asked if it should use the same assignment mechanism for EBS spectrum in the Gulf of Mexico as it uses in the rest of the country.<sup>3</sup>

In response to the *Second Further Notice*, on September 23, 2008, API submitted Comments proposing that Section 27.1201 of the Commission’s rules be modified to permit the licensing of 2.5 GHz EBS spectrum in the Gulf of Mexico to non-educational licensees.<sup>4</sup> API also suggested an amendment to Rule 27.1203(b), which limits the use of EBS spectrum to educational content.<sup>5</sup>

API proposed that the 112.5 MHz of EBS spectrum in the Gulf of Mexico be disaggregated into five 22.5 MHz licenses and made available for day-to-day industrial operations in 35-mile radius service areas. API also proposed that, in contrast to the BRS proceeding, the Gulf Service Area for EBS spectrum be licensed to the shoreline at high-mean tide, as suggested in its *Petition for Reconsideration*.<sup>6</sup> This would grant EBS access for the large number of oil platforms working within 12 miles of the coastline, thus creating a more inclusive emergency network in the Gulf of Mexico. Concerns regarding interference at the edge of the zone can be resolved by the Commission’s existing rules governing signal strength at the edges of radio authorizations.

On October 22, 2008, API submitted Reply Comments reiterating its position that EBS could be put to beneficial use in the hostile Gulf of Mexico environment to support safe and effective domestic energy production.<sup>7</sup> On September 1, 2009, API visited Commission staff to discuss its EBS proposal.<sup>8</sup>

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<sup>1</sup> *Third Order on Reconsideration and Sixth Memorandum Opinion and Order and Fourth Memorandum Opinion and Order and Fourth Memorandum and Order and Second Further Notice of Proposed Rulemaking and Declaratory Ruling*, FCC 08-83, Released March 20, 2008, at 52.

<sup>2</sup> *Third Order*, at 76.

<sup>3</sup> *Id.*

<sup>4</sup> *Comments of the American Petroleum Institute*, WT Docket No. 03-66, RM-10856; WT Docket No. 02-68, RM-9718. Posted September 23, 2008, at 1.

<sup>5</sup> “Authorized educational broadband channels must be used to further the educational mission of accredited schools offering formal educational courses to enrolled students.” 47 CFR § 27.1203(b).

<sup>6</sup> *Petition for Reconsideration of the American Petroleum Institute*, WT Docket No. 03-66 et al., July 19, 2006, at 2.

<sup>7</sup> *Reply Comments of the American Petroleum Institute*, WT Docket No. 03-66 et al., October 22, 2008, at 2.

<sup>8</sup> *Ex Parte Notice*, WT Docket No. 03-66 et al., September 2, 2009 at 1.

## ENERGY INDUSTRIES REQUIRE ADDITIONAL SPECTRUM TO SUPPORT SAFE AND EFFICIENT OPERATIONS IN THE GULF OF MEXICO

The additional EBS spectrum requested by API and currently unused by the educational community in the Gulf of Mexico will become available to support critical U.S. infrastructure. According to the Department of the Interior's Bureau of Ocean Energy Management, Regulation, and Enforcement, there are approximately 3,500 oil and natural gas platforms operating in the Gulf of Mexico, almost 1,000 of which are manned.<sup>9</sup> Meanwhile, deepwater wells are expected to make up 30% of America's total oil production by the year 2015.<sup>10</sup> The Department of the Interior recently began issuing new permits for offshore exploration for the first time in the wake of the *Deepwater Horizon* incident.<sup>11</sup>

In the three years that have passed since the *Third Order*, the need for radio spectrum to support activity in the Gulf of Mexico has become even more acute as a result of the *Deepwater Horizon* incident, which dramatically underscored the importance of oil spill response and cleanup measures. The *Deepwater Horizon* cleanup effort included over 20,000 people, 1,000 boats, and 100 aircraft.<sup>12</sup> Coordinating a cleanup effort of that size and scope requires significant communications infrastructure, but the Commission currently has allocated a total of only 12 Part 90 frequencies nationwide – 4 HF frequencies, 6 VHF frequencies, and 2 UHF frequencies for oil spill containment purposes.<sup>13</sup> The Commission's limited allocation of frequencies is grossly inadequate to meet voice communications needs in response to a major event. More importantly for purposes of this proceeding, there is no allocation for broadband spectrum to support higher speed, next generation communications during incident response. The vast number of entities involved in a large-scale emergency effort such as that surrounding the *Deepwater Horizon* incident can quickly overwhelm the limited number of frequencies currently allocated by the Commission for oil spill cleanup. In the case of the *Deepwater Horizon*, private industry was able to cobble together a mix of Special Temporary Authorizations by working closely with Commission staff, the U.S. Coast Guard and third party licensees using spectrum available on the secondary market. If spectrum had not been available, or if its acquisition had been delayed, the results could have been dire. This "catch as catch can" spectrum situation in dealing with emergency oil events in the Gulf of Mexico is unacceptable as a matter of national policy.

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<sup>9</sup> Search results at <http://www.gomr.boemre.gov/homepg/fastfacts/platform/master.asp> (accessed April 12, 2011).

<sup>10</sup> Smith, Charles Hugh. "The World Can't Live Without Deepwater Oil." *DailyFinance*, May 17, 2010.

<sup>11</sup> Hampton, Stuart. "Deepwater drilling permits in the Gulf of Mexico get the green light." *Bizmology*, March 24, 2011. <http://www.bizmology.com/2011/03/24/deepwater-drilling-permits-in-the-gulf-of-mexico-get-the-green-light/> (accessed April 12, 2011)

<sup>12</sup> Cacas, Max. "Communications lesson learned from Gulf oil spill." *Federal News Radio*, November 9, 2010. <http://www.federalnewsradio.com/?nid=17&sid=2111872> (accessed April 12, 2011).

<sup>13</sup> Limitation 8 of Part 90.35 prescribes oil spill containment frequencies that can be used on a secondary basis: 25.04, 25.08, 150.980, 150.9875, 154.585, 158.445, 159.480, 159.4875, 454, and 459 MHz. Limitation 15 prescribes oil spill containment frequencies for shared government/non-government use: 36.25 and 41.71 MHz.

For this reason, API recommends an allocation in the Gulf of Mexico to ensure that sufficient spectrum will be available for routine operational use as well to assist in responding to any offshore disaster that may arise in the future.

## **THE GULF OF MEXICO REQUIRE A SPECIFIC ALLOCATION OF SPECTRUM FOR DISASTER RESPONSE**

In light of recent developments described above, the Commission also should make the EBS band available on a “preemptory” basis during an oil spill response, similar to oil spill recovery frequencies currently available under Section 90.35, limitation 8 of the Commission’s rules.<sup>14</sup> Under API’s proposal, in the event of an offshore emergency, the EBS frequencies in the Gulf of Mexico would be available immediately to support emergency coordination and cleanup purposes. All other offshore operations on these frequencies would become secondary, and licensees would be prohibited from interfering with, and would be required to accept interference from, disaster-response operations.<sup>15</sup> Upon completion of the emergency situation or cleanup effort, the spectrum would again become available for day-to-day operations by non-educational licensees.

Through this scheme, the Commission will ensure that critical emergency spectrum in the Gulf of Mexico is available when necessary, while also permitting routine use on a day-to-day basis to ensure the safety and coordination of the thousands of offshore workers currently employed by energy companies throughout the Gulf of Mexico. In this way, the Commission not only will provide ample spectrum to respond to emergencies in the Gulf of Mexico but will assist in minimizing the risk of accident or disaster in the first instance.

## **PROMOTE THE PUBLIC INTEREST THROUGH SPECTRUM EFFICIENCY AND EMERGENCY READINESS FOR CRITICAL INFRASTRUCTURE**

For the following reasons, API proposes that FCC CIRC1805-02 of the Commission’s rules be modified to permit the licensing of 2.5 GHz EBS spectrum in to critical infrastructure as a priority window before being available for commercial use through competitive bidding.

EBS spectrum in the Gulf of Mexico presents an ideal opportunity to create a new offshore spectrum option for the energy industry without significantly impacting other licensees in the region. As the Commission stated in the *Third Order*, without the presence of any schools or other educational institutions offshore in the Gulf of Mexico, the entire EBS band is currently

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<sup>14</sup> 47 C.F.R. § 90.35, Limitation 8.

<sup>15</sup> Pursuant to Section 90.35 of the Commission’s current rules governing oil spill response frequencies, any secondary user must “forego its use should oil spill containment and cleanup activities be present in their area of operation or upon notice by the Commission or a primary user that harmful interference is being caused to oil spill containment or cleanup activities in other areas.” 47 C.F.R. § 90.35, Limitation 8.

unused in that area.<sup>16</sup> In short, EBS spectrum in the Gulf of Mexico is currently wasted. API proposes a new and important use for those frequencies in that region. *EBS Spectrum Represents a Viable Option for Offshore Safety Use*. The Commission noted in its *Third Order* that API had “persuasively argued” for access to the 2.5 GHz BRS band for offshore operations, noting the very limited number of bands available for point-to-multipoint offshore use.<sup>17</sup> In addition to supporting operations on and between the production platforms themselves, spectrum is required to facilitate multi-vessel communications and to coordinate between platforms and ships. The spectrum must have favorable propagation characteristics as communications towers are few and far between in the Gulf of Mexico, and vessels are constantly on the move.<sup>18</sup> Options for this type of spectrum are extremely limited; while lower spectrum bands such as the 700 MHz band likely would work, the 2.5 GHz band appears to be the best readily available option for point-to-multipoint operations. EBS spectrum would, much like BRS spectrum, provide the Gulf with a point-to-multipoint communications option that suits the needs of offshore operations while not disadvantaging other licensees. *Spectrum Availability In The Gulf of Mexico Has Not Kept Up With Technological Advances*. Oil platforms have made significant technological advances since their introduction in the 1930s. For example, one of Chevron’s current flagship platforms, the Tahiti, cost \$4.6 billion dollars to produce, takes up as much space as a 60-story building, and has accommodations to feed and house over 100 workers.<sup>19</sup> Oil and natural gas companies also have made major strides in safety, and these companies are redoubling their safety and emergency efforts in the wake of the *Deepwater Horizon* disaster. Indicative of this effort, almost all of the world’s largest oil companies are currently engaged in a joint venture known as the Marine Well Containment Company, an engineering effort to design a state-of-the-art system for the containment of underwater well control incidents.<sup>20</sup>

In spite of these advances, however, oil and natural gas companies have been unable to procure sufficient spectrum in the Gulf of Mexico to keep pace with rising demand, especially when compared to the large amounts of spectrum devoted to consumer broadband applications on the mainland. The thousands of workers manning vessels and platforms in the Gulf can carry state-of-the art smartphones on shore, but at work, they have minimal access to advanced communications technology that would keep them safer and better equipped to respond to an environmental disaster or other emergency.

In the past decade, the Gulf of Mexico has seen not only a major oil spill incident, but devastating weather events in Hurricanes Katrina and Rita. Wise spectrum policy in the Gulf of

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<sup>16</sup> *Third Order*.

<sup>17</sup> *Third Order* at 53 (footnotes omitted).

<sup>18</sup> The *Third Order* (at 53) engages in a detailed discussion of the suitability of 2.5 GHz spectrum for the needs of energy industries in the Gulf.

<sup>19</sup> “Chevron Starts Pumping from \$4.7B Tahiti Platform,” *Bloomberg News*, May 6, 2009.  
<http://www.chron.com/disp/story.mpl/headline/biz/6410561.html> (accessed April 12, 2011).

<sup>20</sup> For more information on the Marine Well Containment Company, visit  
<http://www.marinewellcontainment.com/>.

Mexico can help prepare the region for when emergencies strike and assist the region in recovering when the unexpected happens. *Current Part 90 Spectrum Availability In The Gulf Is Too Limited for Emergency and Cleanup Efforts*. As discussed previously, current emergency spectrum for oil spill cleanup purposes is extremely limited, with only a small number of narrow-bandwidth channels available under the Commission's rules. Yet the amount of spectrum and other resources needed in an oil spill recovery and cleanup effort can be massive. Already, the costs of recovery efforts for the *Deepwater Horizon* spill are over \$600 million and rising.<sup>21</sup> A recovery effort of this size and scope must be run as efficiently as possible. With thousands of people and huge amounts of equipment involved over vast distances, adequate logistics are crucial to a safe and effective operation.

By allowing EBS spectrum to be used for daily operations in the Gulf of Mexico – and for priority emergency purposes when needed -- the Commission can augment existing Part 90 oil spill frequencies, vastly improving the reliability of the industry's communications networks and the efficiency of large-scale emergency and cleanup operations.

For these reasons we believe that 2.5 GHz in the Gulf of Mexico should be prioritized for critical infrastructure. If this is open for unrestricted commercial use, speculators will drive up the costs and try to resell to oil and gas; thus, further increasing the cost of critical infrastructure.

#### **OTHER CRITICAL INFRASTRUCTURE CONSIDERATIONS**

API, previously has focused on requesting EBS spectrum in Gulf of Mexico. Since FCC is proposing opening the spectrum nationwide; it has huge potential to benefit onshore wells, and processing facilities. Below are API comments to FCC CIRC1805-02.

API agrees with the use of census tracts for Geographic Licensee areas. Onshore processing facilities are small geographical areas; and therefore, spectrum is only required within the critical infrastructure. We believe that overlaps should be permitted on a non-interference basis. We agree with FCC's proposal for geography.

We agree that EBS should be opened for non-traditional EBS users however with a priority for critical infrastructure.

While noting the limitations of the Universal Licensing System, API proposes that filing windows are prioritized by state, but leaving critical infrastructure rolling applications.

API believes that a 3-year holding period is significant in showing that entities have a bona fide interest. Entities must also have an infrastructure plan to in order to request a license. This will limit the potential for speculators.

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<sup>21</sup> *Oil Spill Cost and Reimbursement Fact Sheet*, March 11, 2011.

<http://www.restorethegulf.gov/release/2011/03/11/oil-spill-cost-and-reimbursement-fact-sheet> (accessed April 12, 2011).

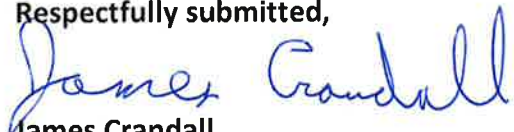
## **CONCLUSION**

Allowing non-educational institutions to obtain licenses for EBS spectrum in the Gulf of Mexico will increase spectrum efficiency, promote safety and disaster response, and support efficient U.S. energy production. Furthermore, EBS spectrum can be used for onshore critical infrastructure and should have priority above commercial users. Especially for Gulf of Mexico, if critical infrastructure is required to go through a commercial vendor, this will only drive up the costs or make it unobtainable due to speculators hoping for an incident that requires spectrum.

For those reasons, API respectfully requests that the Commission permit critical infrastructure to obtain priority licenses for EBS spectrum as a priority filing window for Critical Infrastructure, including API members above commercial.

Your attention to this matter is appreciated. Should you have any questions or require any additional information, please do not hesitate to contact the undersigned.

**Respectfully submitted,**



**James Crandall**

**API**