

**Center for Regulatory Effectiveness’ (“CRE”) Comments on  
the National Oceanic and Atmospheric Administration/  
National Marine Fisheries Service (“NOAA/NMFS”)  
Draft Guidance (“draft Acoustic Guidance”) for Assessing the  
Effects of Anthropogenic Sound on Marine Mammals-Acoustic  
Threshold Levels for Onset of Permanent (“PTS”) and  
Temporary (“TTS”) Threshold Shifts,  
<http://www.gpo.gov/fdsys/pkg/FR-2014-01-29/pdf/2014-01611.pdf> ;  
Document ID NOAA-NMFS-2013-0177.  
Comments filed March 13, 2014, at [www.regulations.gov](http://www.regulations.gov)**

**I. Executive Summary**

There is no physical harm from oil and gas seismic as currently and historically regulated by NOAA/NMFS and by other U.S. Government agencies. With regard to PTS and TTS, NOAA/NMFS have correctly explained:

“Researchers have studied TTS in certain captive odontocetes and pinnipeds exposed to strong sounds (reviewed in Southall et al., 2007). However, there has been no specific documentation of TTS let alone permanent hearing damage, i.e., permanent threshold shift (PTS), in free-ranging marine mammals exposed to sequences of airgun pulses during realistic field conditions.”<sup>1</sup>

NOAA/NMFS’ explanation is consistent with the Finneran controlled studies, which show no TTS in mid-frequency (“MF”) dolphins from low frequency (“LF”) seismic.

The draft Acoustic Guidance only applies to PTS and TTS, and seismic does not cause PTS and TTS “during realistic field conditions.” Consequently, there is no need to apply the new PTS and TTS criteria in the draft Acoustic Guidance to oil and gas seismic. If NOAA/NMFS do change the current criteria for seismic, then they should make those criteria less stringent because there is no evidence of harm.

The draft Acoustic Guidance should not be used for any sound source until and unless NOAA/NMFS change the Guidance to satisfy the Peer Review Report’s many criticisms of and objections to the Guidance.

NOAA/NMFS need to prepare and obtain Office of Management and Budget (“OMB”) approval of a new Paperwork Reduction Act (“PRA”) Information Collection Request

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<sup>1</sup> 79 FR 12160, 12165 (March 4, 2014), at <http://www.gpo.gov/fdsys/pkg/FR-2014-03-04/pdf/2014-04770.pdf>.

(“ICR”) before they can use the draft Acoustic Guidance for any sound source. This new ICR has to demonstrate that the Guidance complies with Information Quality Act (“IQA”) Guidelines.

NOAA/NMFS need to perform a cost benefit analysis of their draft Acoustic Guidance if they or any other agency intends to use it in rules or regulatory actions.

## **II. There Is No Reason to Change Current Regulation of Oil and Gas Seismic Because There’s No Harm Under Current Regulation**

The Federal Government has repeatedly and correctly stated that oil and gas seismic does not harm marine mammals under current and long-standing regulation. For example: The Bureau of Ocean Energy Management (“BOEM”) recently stated with regard to the Gulf of Mexico:

“NTL 2012-JOINT-G02, ‘Implementation of Seismic Survey Mitigation Measures and Protected Species Observer Program,’ minimizes the potential of harm from seismic operations to marine mammals. These mitigations include onboard observers, airgun shut-downs for whales in the exclusion zone, ramp-up procedures, and the use of a minimum sound source. Therefore, no significant cumulative impacts to marine mammals would be expected as a result of the proposed exploration activities when added to the impacts of past, present, or reasonably foreseeable oil and gas development in the area, as well as other ongoing activities in the area. Within the CPA, which is directly adjacent to the EPA, there is a long-standing and well-developed OCS Program (more than 50 years); there are no data to suggest that activities from the preexisting OCS Program are significantly impacting marine mammal populations.”<sup>2</sup>

As another example, BOEM recently stated:

“Although there will always be some level of incomplete information on the effects from routine activities under a [GOM] CPA proposed action on marine mammals, there is credible scientific information, applied using acceptable scientific methodologies, to support the conclusion that any realized impacts would be sublethal in nature and not in themselves rise to the level of reasonably foreseeable significant adverse (population-level) effects. Also, routine activities

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<sup>2</sup> Bureau of Ocean Energy Management’s Draft Environmental Impact Statement (“DEIS”), for the Gulf of Mexico, Outer Continental Shelf (“OCS”), Eastern Planning Area (“EPA”) Lease Sales 225 and 226, page 2-22. The DEIS is available online at <http://www.boem.gov/Environmental-Stewardship/Environmental-Assessment/NEPA/nepaprocess.aspx>

will be ongoing in the CPA proposed action area as a result of active leases and related activities. As of May 2012, there are 4,377 active leases in the CPA. Within the CPA, there is a long-standing and well-developed OCS Program (more than 50 years); there are no data to suggest that routine activities from the preexisting OCS Program are significantly impacting marine mammal populations.”<sup>3</sup>

The National Academy of Sciences’ National Research Council agrees with the Department of Interior that “there are no documented or known population-level effects due to sound. NAS has concluded with regard to the entire Outer Continental Shelf that “there have been no known instances of injury, mortality, or population level effects on marine mammals from seismic exposure...”<sup>4</sup>

As a final example, NOAA/NMFS also agree that “to date, there is no evidence that serious injury, death, or stranding by marine mammals can occur from exposure to airgun pulses, even in the case of large airgun arrays.”<sup>5</sup>

Given this absence of any harm under current, long-standing regulation, which includes NTL 2012-JOINT-G02, there is no reason to apply the draft Acoustic Guidance to oil and gas seismic especially since, as noted above:

“there has been no specific documentation of TTS let alone permanent hearing damage, i.e., permanent threshold shift (PTS), in free-ranging marine mammals exposed to sequences of airgun pulses during realistic field conditions.”<sup>6</sup>

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<sup>3</sup> *Gulf of Mexico OCS Oil and Gas Lease Sales: 2012-2017; Western Planning Area Lease Sales 229, 233, 238, 246, and 248; Central Planning Area Lease Sales 227, 231, 235, 241, and 247; Final Environmental Impact Statement; Volume I, page 4-215; Volume II, page 4-710; available online at <http://www.boem.gov/Environmental-Stewardship/Environmental-Assessment/NEPA/nepaprocess.aspx> .*

<sup>4</sup> *Outer Continental Shelf Oil & Gas Leasing Program, 2007-2012 Programmatic Environmental Impact Statement, page V-64 (MMS April 2007), available online at <http://www.boem.gov/Environmental-Stewardship/Environmental-Assessment/NEPA/nepaprocess.aspx> .*

<sup>5</sup> *E.g.*, 79 FR 13626, 13635-36 (March 11, 2014), at <http://www.gpo.gov/fdsys/pkg/FR-2014-03-11/pdf/2014-05158.pdf>; 79 FR 12160, 12166 (March 4, 2014), at <http://www.gpo.gov/fdsys/pkg/FR-2014-03-04/pdf/2014-04770.pdf> ; 75 FR 49759, 49795 (Aug. 13, 2010), at <http://edocket.access.gpo.gov/2010/19962.htm> .

<sup>6</sup> 79 FR 12160, 12165 (March 4, 2014), at <http://www.gpo.gov/fdsys/pkg/FR-2014-03-04/pdf/2014-04770.pdf> .

### **III. The Draft Acoustic Guidance Should Not Apply to Oil and Gas Seismic Because the Guidance Does Not Include the Best Available Science about Oil and Gas Seismic**

The Finneran *et al.* studies are unable to induce TTS in dolphins at the highest exposure level (cumulative SEL 196 dB re 1  $\mu$ Pa<sup>2</sup>-s). These studies conclude:

- “that the potential for airguns to cause auditory effects on dolphins and similar delphinids may be lower than previously predicted”; and that
- “not being able to induce TTS at these exposure levels is most likely a result of the relatively low frequency content of the air gun impulses compared to the dolphin’s range of best hearing.”<sup>7</sup>

These findings and conclusions are not included in the draft Acoustic Guidance. Consequently, the draft Acoustic Guidance is not based on the best available evidence about oil and gas seismic.

The draft Acoustic Guidance states:

“NOAA is aware that studies are currently underway to understand TTS associated with exposure to multiple airgun shots in bottlenose dolphins (SPAWAR study 25 20). These data will be critical in informing future acoustic threshold levels for impulsive sources, once they become available.”<sup>8</sup>

As demonstrated in our discussion of the Finneran *et al* studies, these “critical” data are available, and they do not support the draft Acoustic Guidance’s application to seismic airguns. Even if these data were not available, then the draft Acoustic Guidance should not be applied to seismic airguns because (i) the Guidance itself admits that these data are “critical”; and (ii) there is no harm under current regulation of seismic airguns.

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<sup>7</sup> Marine Environment Update--IAGC, Slide 14, at [www.iagc.org/files/4015/](http://www.iagc.org/files/4015/) (emphasis in the original). The same findings and conclusions are contained in 3<sup>rd</sup> International Conference, The Effects of Noise on Aquatic Life, Budapest, Hungary (August 2013), page 159, at [http://an2013.org/docs/Program\\_with\\_Abstracts\\_7-15-2013.pdf](http://an2013.org/docs/Program_with_Abstracts_7-15-2013.pdf). Similar findings and conclusions are contained in Finneran et al., *Temporary shift in masked hearing thresholds in odontocetes after exposure to single underwater impulses from a seismic watergun*, at <http://www.ncbi.nlm.nih.gov/pubmed/12083226>.

<sup>8</sup> Draft Acoustic Guidance, Page 51, at [http://www.nmfs.noaa.gov/pr/acoustics/draft\\_acoustic\\_guidance\\_2013.pdf](http://www.nmfs.noaa.gov/pr/acoustics/draft_acoustic_guidance_2013.pdf).

#### **IV. The Draft Acoustic Guidance Should Not Be Applied to Any Sound Source Until and Unless NOAA/NMFS Changes the Guidance to Satisfy the Peer Review Report's Many Criticisms of and Objections to the Guidance.**

NOAA/NMFS have finally published the peer review report for the agency's draft Acoustic Guidance. The peer review report is generally negative. For example,

- 1) NOAA/NMFS' proposed weighting function is criticized on several different grounds.<sup>9</sup>
- 2) Defining cSEL over a 24-hour period conflicts with real world data.<sup>10</sup>
- 3) NOAA/NMFS originally included new Level B behavioral effects in the package to be peer reviewed. The peer reviews were so negative that NOAA/NMFS deleted Level B effects from the peer review reports and is not now proposing new level B behavioral effects Acoustic Guidance.<sup>11</sup>

The draft Acoustic Guidance must be changed to satisfy these and other criticisms and objections. Without change, the draft Acoustic Guidance does not meet Information Quality Act ("IQA") Guidelines.<sup>12</sup>

#### **V. NOAA/NMFS Need a New ICR for any Application of the Draft Acoustic Guidance, and the New ICR has to Demonstrate Compliance with IQA Guidelines**

NOAA/NMFS' current MMPA ICR does not authorize information collections based on the draft Acoustic Guidance because the Guidance differs significantly from the information collections authorized by the current ICR.<sup>13</sup>

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<sup>9</sup> *E.g.*, Peer Review Report, pages 4, 9, 12, 13, 23.

<sup>10</sup> *E.g.*, *Id.* pages 17, 19.

<sup>11</sup> *Id.*, page 1.

<sup>12</sup> NOAA/NMFS' IQA Guidelines are available at [http://www.cio.noaa.gov/services\\_programs/info\\_quality.html](http://www.cio.noaa.gov/services_programs/info_quality.html).

<sup>13</sup> See OMB's website for NOAA/NMFS' current MMPA Takes ICR at <http://www.reginfo.gov/public/do/PRAOMBHistory?ombControlNumber=0648->

NOAA/NMFS' proposed extension ICR also does not authorize information collections based on the Acoustic Guidance because the Guidance differs from the information collections discussed in the proposed extension ICR.<sup>14</sup>

CRE commented to NOAA/NMFS on this extension ICR before NOAA/NMFS submitted it to OMB. CRE's comments are available at <http://thecre.com/pdf/CRE-ICR.0648-0515.pdf> . They are incorporated by reference into CRE's comments on the draft Acoustic Guidance.

NOAA/NMFS respond to CRE's comments at pages 7-10 of the Supporting Statement that accompanies the ICR sent to OMB for review, and which is available at [http://www.reginfo.gov/public/do/PRAViewDocument?ref\\_nbr=201312-0648-015](http://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=201312-0648-015) . NOAA/NMFS' response in its Supporting Statement generally agrees with CRE's comments. For example,

- NOAA/NMFS agree with CRE that NOAA/NMFS will have to conduct a new PRA /ICR burden analysis and review if and when they propose rules for MMPA takes by oil and gas seismic in the gulf of Mexico.

- NOAA/NMFS agree with CRE that they will have to conduct a new PRA/ICR burden analysis and review if and when they require companies to comply with the draft Acoustic Guidance.

- NOAA/NMFS agree with CRE that NOAA /NMFS have to comply with IQA Guidelines in their development of new Acoustic Guidance. See page 5 of NOAA/NMFS' Supporting Statement for a discussion of IQA Guidelines compliance.<sup>15</sup>

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0151 , and at [http://www.reginfo.gov/public/do/PRAViewICR?ref\\_nbr=201009-0648-008](http://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=201009-0648-008) .

<sup>14</sup> See 78 FR 58446 (Sept. 6, 2013), <http://www.gpo.gov/fdsys/pkg/FR-2013-09-06/pdf/2013-21660.pdf> , for NOAA/NMFS' proposed extension ICR.

<sup>15</sup> NOAA/NMFS' IQA Guidelines are available at [http://www.cio.noaa.gov/services\\_programs/info\\_quality.html](http://www.cio.noaa.gov/services_programs/info_quality.html) .

## **VI. A Cost Benefit Analysis Must Support Any Application of the draft Acoustic Guidance in Regulations or Regulatory Actions**

According to NOAA/NMFS, the Acoustic Guidance are “classified as a Highly Influential Scientific Assessments (HISA) by the Office of Management and Budget (OMB)” because it “could have a potential impact of more than \$500 million in any one year on either the public or private sector; or that the dissemination is novel, controversial, or precedent-setting; or [it has] significant interagency interest.”<sup>16</sup>

Executive Orders 12866 and 13563 require cost benefit analyses for “significant regulatory actions,” which are defined as

“any regulatory action that is likely to result in a rule that may:

- (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;
- (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- (3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- (4) Raise novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth in this Executive order.”<sup>17</sup>

Consequently, any use of the draft Acoustic Guidance in rules would have to be supported by cost benefit analyses because, according to NOAA/NMFS, it “could have a potential impact of more than \$500 million in any one year on either the public or private sector; or ...the dissemination is novel, controversial, or precedent-setting; or ...[it has] significant interagency interest.”

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<sup>16</sup> Page 2, at [http://www.nmfs.noaa.gov/pr/acoustics/draft\\_acoustic\\_guidance\\_2013.pdf](http://www.nmfs.noaa.gov/pr/acoustics/draft_acoustic_guidance_2013.pdf) .

<sup>17</sup> Executive Order 13563 is available at <http://www.whitehouse.gov/the-press-office/2011/01/18/improving-regulation-and-regulatory-review-executive-order> . Executive Order 12866 is available at <http://www.archives.gov/federal-register/executive-orders/pdf/12866.pdf> .

Moreover, given the likelihood that the draft Acoustic Guidance will be used in MMPA take rules promulgated by NOAA/NMFS for oil and gas seismic in the Gulf of Mexico, NOAA/NMFS should support the Acoustic Guidance with a cost benefit analysis because it is itself a significant regulatory action.

CRE is not aware of any cost benefit analysis for the Acoustic Guidance.

NOAA/NMFS should allow public comment on how to perform a cost benefit analysis for the draft Acoustic Guidance, and on a draft cost benefit analysis.

## **VII. Conclusion and Recommendations**

The draft Acoustic Guidance should not apply to oil and gas seismic because current regulation, including NTL 2012-JOINT-G02, adequately protects the environment, because the Guidance does not include the best available science about seismic and marine mammals, and because there is no harm from seismic.

The draft Acoustic Guidance should not apply to any sound source until and unless the Guidance is changed to satisfy the Peer Review Report's many criticisms and objections.

NOAA/NMFS need to prepare and obtain OMB approval of a new ICR before the draft Acoustic Guidance can be used for any sound source. This new ICR has to demonstrate that the Guidance complies with IQA Guidelines.

NOAA/NMFS need to perform a cost benefit analysis of the draft Acoustic Guidance if NOAA/NMFS or any other agency intends to use it in rules or regulatory actions.

We thank you for the opportunity to submit these comments. We look forward to NOAA/NMFS' response to them.

**The Center for Regulatory Effectiveness**  
[www.theCRE.com](http://www.theCRE.com)