15 February 2017

UNEP/CMS Secretariat,
Platz der Vereinten Nationen 1,
53113 Bonn, Germany

VIA Email: cms.secretariat@cms.int

Re: 2nd stakeholder consultation on the CMS Family Guidelines on Environmental Impact Assessments for Marine Noise-generating Activities

To whom it may concern:

This letter provides the comments of the International Association of Geophysical Contractors ("IAGC"). We appreciate the consideration of the CMS Secretariat regarding the comments set forth below.

I. THE ASSOCIATION

IAGC is the international trade association representing the industry that provides geophysical services (geophysical data acquisition, processing and interpretation, geophysical information ownership and licensing, and associated services and product providers) to the oil and natural gas industry. IAGC member companies play an integral role in the successful exploration and development of offshore hydrocarbon resources through the acquisition and processing of geophysical data.

II. OVERVIEW

The CMS, or Convention on the Conservation of Migratory Species of Wild Animals is a United Nations Environment Programme treaty. The 'CMS Family' refers to both the CMS and the collection of Agreements and Memoranda of Understanding (MoU) that have been concluded under it. Such Agreements include ASCOBANS (Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas) and ACCOBAMS (Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and contiguous Atlantic area). The CMS therefore provides a framework for the development of legally-binding instruments between countries to work towards the conservation of species or groups of species which migrate between States, both on land and in the sea.

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III. BACKGROUND

The CMS Secretariat appointed consultants to develop a draft guideline relating to EIAs for noise-generating activities, which was completed in April 2016. That draft as presented to the 8th Meeting of the Parties to ASCOBANS in August 2016;

http://www.ascobans.org/sites/default/files/document/MOP8_6.2.7.b_rev1_Guidelines_NoiseEIAs.pdf.

The current draft for which the consultation is open is the second iteration;

http://www.cms.int/sites/default/files/basic_page_documents/CMSFamilyGuidelines_EIAMarineNoise_ConsultationDraft_English.pdf

Following the present consultation, the guidelines are to be presented to the 2nd Meeting of the Sessional Committee of the Scientific Council (July 2017) and subsequently to the 12th Meeting of the Conference of the Parties to CMS (October 2017) for adoption.

The guidelines are intended to provide regulators with advice to apply in domestic jurisdictions, which can be standardized across jurisdictions, equally applicable to individual Parties and all CMS Instruments. The guidelines are accompanied by a Technical Support Document that is intended as a resource for regulators and decision makers to when assessing noise-generating activities of varying types.

IV. COMMENTS

As the primary trade association representing the vast majority of operators executing seismic surveys globally, as well as seismic survey technology and mitigation service providers, IAGC offers the following comments on the draft CMS Family Guidelines on Environmental Impact Assessments for Marine Noise-generating Activities in relation to seismic surveys specifically. Broader comments are provided, where appropriate, in the hope that the CMS Secretariat will find our input helpful when updating the draft guidelines for presentation to the Scientific Council later this year. It is our strongly held opinion that the current draft falls far short of the level of balanced stakeholder input and relevant scientific information expected of CMS Family guidelines, and should not be adopted without extensive revision to both the guidelines and technical support documents, as well as to the composition of the drafting team.

Detailed comments relating to specific elements of the both the Guidance document and the Technical Support Document are contained within the separate document; Technical Comments Table for CMS Guidelines and Technical Support Document.docx, provided for the review of the CMS Secretariat. In support of these, IAGC offers the following more general comments on the documents and the section relevant to seismic surveys.

A. CMS Family Guidelines on EIAs for Marine Noise-generating Activities

Sections I to III of the main text contain a number of factual errors and over-simplifications that may be miss-leading to potential decision makers when making assessments. In particular IAGC would like to draw attention to the assertion that anthropogenic noise has 'doubled' in the last 60 years and that elevated levels may be life-threatening for many marine species. This is not evidenced and the potential effects remain undemonstrated. Further, the potential for causing physical effects such as temporary or permanent threshold shift may only occur in very specific circumstances and remain undemonstrated in relationship to normal seismic survey operations. In particular, phenomena such as decompression stress remain controversial due to conflicting scientific support for the likelihood of such effects, which has been insufficiently conveyed by the current draft document.

Parts of section III contain factual errors regarding the acoustic metric Sound Exposure Level (SEL), which have been highlighted within our more detailed technical comments document. IAGC recommends that these be rectified prior to presentation to the Scientific Council.

B. EIA Guideline for Seismic Surveys

The guidelines document makes reference to a number of information types that are irrelevant when considering the potential impacts of acoustic sources, as detailed our accompanying comments document. Of further concern is the reference to scientific monitoring to assess baselines. While IAGC recognizes the benefit in establishing baselines in order to more accurately assess potential risk, the onus should be firmly on the national resource management bodies of the given nation through dedicated or collaborative work with relevant research institutions or international bodies. To place this requirement on a given industry is to unfairly penalize that stakeholder and severely limit development opportunities.

The details regarding sound modelling are limited, and in the context of some of the factual errors noted regarding the Sound Exposure Level, our concern is that there could be confusion regarding which model is appropriate. This could lead to misunderstandings regarding the actual source output and site specific propagation, which needs to be clearly understood in order to implement practical mitigation. IAGC notes the reference to the scientific assessment of impact and encourages such over unnecessarily precautionary safety limits are not based on a thorough understanding of the acoustic source.

While the guideline touches on mitigation, it does not offer specific guidance on formulating a risk based mitigation plan using appropriate and practical methodologies. This may lead to mitigation that is neither practical to implement, nor beneficial to the conservation of the marine species that may be present in any given development area.

C. Technical Guidance Document

IAGC supports the development of scientifically robust and balanced technical and scientific information. The Technical Support Information document that accompanies the Guideline document is not a scientifically robust and balanced review, and is seriously flawed and biased.

Specifically, the support document, like the draft guidance document, demonstrates an incomplete understanding of underwater sound, with factual errors apparent when discussing Sound Exposure Level and in other aspects of bioacoustics. There are a number of areas where bold assertions are made with limited or no referencing, or in some cases misrepresent what the reference actually stated. The latter point is made clear in section B.3.1., where it is stated that "Most researchers agree that a 'fight or flight' stress response is responsible for the deaths of whales following noise disturbances". This is referenced to a paper by Cox et al., 2006, in which there is no such conclusion that a 'fight or flight' stress response was responsible for the beaked whale mortalities under discussion. The CMS report authors are clearly taking unwarranted liberties in asserting what is known about this subject and the concurrence, or lack thereof, among "many researchers". This is not science, it is unsupported hearsay and secondary interpretation by a small and politically biased group of individuals responsible for the contents of that section of the report.

The general authorship of the Technical Support Information document is felt to be limited, and while some elements of the review are good, they are limited in scope and highlight that some authors do not have the expertise to cover all aspects of a given topic.

Module B goes into some detail regarding specific groups of species, or individual species. However, it often falls short in terms of lacking references and making bold oversimplifications. Sub-sections B.1., B.2., B.3. and B.10. in particular have lengthy paragraphs lacking references to support statements made. The tables used to present TTS and PTS onset values do not include complete units, and are therefore not useful to the reader. Terminology is at times inconsistent, utilizing terms such as 'sonic outbursts', which is both emotive and not in common use.

Module E, regarding Marine Noise-generating Activities has not been prepared by an expert in acoustic sources. It offers only very limited information about each source, with a number of errors apparent in the text, as we highlight in our accompanying comments document. In particular, the author does not present a good understanding of the frequency composition of a seismic source signal or its propagation. This is a key area that could have been strengthened with relevant industry contributions.

Continuing on from the earlier comments regarding mitigation made in the main Guideline document, IAGC notes that there is no Technical Support information relating to mitigation methods or technologies. It would be useful to present detailed information about common practices, developing methods and the practicalities of implementing mitigation in the field during operations.

V. CONCLUSION

Following review of the CMS Family Guidelines on Environmental Impact Assessments for Marine Noise-generating Activities and Technical Support Information, IAGC would like to make clear that these documents do not represent a useful, practical resource for decision makers in assessing EIAs for marine noise-generating activities in their present state. The documents do not provide the tools to fully understand not just the sound-generating activities of concern, but also do not

offer practical assistance in how to effectively asses risks and therefore put effective and practicable mitigation in place.

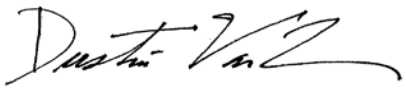
The level of review for many of the key topics is too limited, contains factual errors and too often relies upon speculation rather than substantive evidence. The authors have made a number of assertions regarding the potential impacts of underwater sound on species and habitats, that are personal opinions and not based on scientific evidence or scientific expert consensus.

As highlighted, the authorship is narrow both scientifically and politically, which is reflected in the lack of detail and understanding that is evident in key areas, particularly relating to the physics of sound in water, the output of acoustic sources and the propagation of signals from those sources. The lack of stakeholder participation is a key point, and one that goes against the stated aim of the Executive Directors stated functions and responsibilities for the United Nations Environment Programme, which is "*To secure the effective cooperation of, and contribution from, the relevant scientific and other professional communities in all parts of the world".* IAGC feels that much more could have been done to secure a more balanced and appropriate authorship that could incorporate input from additional relevant scientific experts as well as relevant industries to which these Guidelines are intended to apply.

In their current state, the Guidelines are not ready for use and require either rejection by the Scientific Committee, or a thorough re-write, incorporating the points made regarding a wider and more balanced authorship that incorporates more stakeholders that are central to the topic at hand.

Should you have any questions, please contact the undersigned at +1 713 957 8080, or via email at; dustin.vanliew@iagc.org.

Sincerely,



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International Association of Geophysical Contractors