



Template for the review of the draft standards and guidelines associated with the draft regulations on exploitation of mineral resources in the Area

I. Background

1. The draft regulations on exploitation of mineral resources in the Area ([ISBA/25/C/WP.1](#)) require that certain issues are addressed in accordance with, or taking into account, standards and guidelines to be developed by the organs of the Authority. The standards will be adopted by the Council and will be legally binding on Contractors and the Authority, whereas the guidelines will be issued by the Legal and Technical Commission or the Secretary-General and will be recommendatory in nature.
2. Stakeholder consultation is an integral part of the process decided upon by the Commission for the development of the standards and guidelines ([ISBA/25/C/19/Add.1](#)).
3. The Legal and Technical Commission will consider the comments received through stakeholder consultation during its current session.
4. The drafts include a cover page containing background and contextual information on the approach taken by the Legal and Technical Commission in developing each standard and guidelines. Please note that stakeholder comments are not sought on this cover note.
5. Issues of format and consistency across the standards and guidelines will be reviewed by the secretariat and the Legal and Technical Commission once the content of the various standards and guidelines is finalized following stakeholder consultation.

II. Submitting Comments

6. To ensure that your comments are given due consideration, please send them by e-mail to ola@isa.org.im, at your earliest convenience but **no later than the date announced on the ISA website for the relevant draft standards and guidelines**.
7. When submitting comments, please adhere to the following guidance as much as possible:
 - a. Please provide all comments in writing and in an MS Word .doc or .docx format using the table provided below.
 - b. The table format allows for an unlimited number of comments to be added. To add more comments, you may add more rows.

- c. Please provide full contact information for the individual/Government/organization submitting the comments.
 - d. Please avoid commenting on issues related to format, grammar, spelling or punctuation, unless it affects the overall meaning of the text, as the document will be formatted and edited when the final draft is prepared by the Legal and Technical Commission.
 - e. To facilitate the revision process please be as specific as possible in your comments. In areas where you feel additional or alternative text or information is required, please suggest what this text may look like or what information should be included.
 - f. Text may be copied from the draft into the table if stakeholders wish to use "track changes" in editing text (this is encouraged to ensure accuracy and avoid numbering errors).
 - g. If you refer to additional sources of information, please include these with your comments when possible or provide a complete reference or hyperlink.
 - h. All review comments will be posted on the ISA website, unless otherwise requested by the submitting entity.
8. Should you have any questions regarding the review process, please contact ola@isa.org.jm.

III. Template for Comments

- 9. Please use the review template below when providing comments.
- 10. Line and page numbers have been provided in the drafts. Please use these as a reference as illustrated in the table below.

TEMPLATE FOR COMMENTS

<i>Document reviewed</i>	
Title of the draft being reviewed:	Draft Standard and Guidelines for environmental impact assessment process
<i>Contact information</i>	
Surname:	Martin
Given Name:	Cyrill
Government (if applicable):	
Organization (if applicable):	OceanCare
Country:	Switzerland

E-mail:	cmartin@oceancare.org
<i>General Comments</i>	
<p>1. Pending the consideration of relevant stakeholder comments on the Draft Exploitation Regulations, their according amendment and formal adoption, the development and finalizing of standards and guidelines is premature. While it is helpful to have insight into the ideas of the LTC for future standards and regulations in order to see the whole picture, the formal process for developing and finalizing this lower level 'legislation' needs to be done only after formal adoption of the Draft Exploitation Regulations. The current process is legally doubtful, at best.</p>	
<p>2. The aforementioned is particularly problematic in the case when constraints on the draft standards and guidelines are based on the unfinalized and unadopted Draft Exploitation Regulations e.g. when used to justify very limited public consultation in the EIA process.</p>	
<p>3. As a general comment we want to express our great concern that the draft standards and guidelines presented are not meeting the necessary criteria to effectively protect the marine environment from harmful effects which may arise from activities in the Area. They also do not guarantee the necessary transparency and stakeholder involvement.</p>	
<p>4. We urge the International Seabed Authority (ISA) to use only the most effective and stringent international or national regulations on protection of the environment as a basis for regulating the Area. Where such is lacking, the most qualified scientist and policy experts shall be involved to draft regulations strictly based on the precautionary principle.</p>	
<p>5. Furthermore, this drafting shall be conducted in a fully transparent manner. This includes disclosure of contributors to the Draft Standards and Guidelines and their affiliation. Following the precautionary principle we ask the ISA to abstain from allowing any activities in the Area where there is uncertainty if the activity could cause significant harm to the marine environment.</p>	
<p>6. OceanCare is focusing on noise emissions from Deep Sea Mining (DSM) activities and we therefore will focus our specific comments primarily on that subject. This should not be interpreted as prejudice, endorsement or legitimization of the other parts of the draft standards and guidelines.</p>	
<p>7. It is important to note that exploration activities and baseline data collection cause noise emissions with potential significant impacts on marine species (e.g. shipping propulsion and cavitation, dynamic positioning, acoustic exploration measures such as echosounders and seismic methods, extraction activities for sampling). These should be accounted for already at the exploration and baseline environmental data collection stage, be subject to, where necessary, potential avoidance and exclusion provisions and as a general principle the least harmful method should always be prescribed. In that respect incentive models should become stimulated that only the least noise-generating technology is applied and best environmental practices are followed which shall be subject to frequent and continued updating.</p>	
<p>8. The EIA process should not be split in different documents with duplications as well as</p>	

inconsistencies. We rather recommend to integrate EIA, EIS and EMMP into one process and provide a standard on the whole process. The fundamental requirement for EIA, EIS and EMMP should be binding. Non-binding recommendations that leave the concrete steps at the discretion of the contractor are not sufficient to effectively protect the marine environment from harmful effects which may arise from activities in the Area and do not reflect the obligation of ISA to manage the Area as a common heritage of mankind. More technical details should be developed as supportive guidance to the EIA process in the form of guidelines. To illustrate this with an example on underwater noise, we kindly invite you to have a look at the Convention on the Conservation of Migratory Species of Wild Animals (CMS) Family Guidelines on Environmental Impact Assessments for Marine Noise-generating Activities (as inspiration for a standard) and their technical support information (as model for a guideline)

CMS Family Guidelines:

https://www.cms.int/sites/default/files/document/cms_cop12_res.12.14_marine-noise_e.pdf

Technical Support information:

https://www.cms.int/sites/default/files/basic_page_documents/CMS-Guidelines-EIA-Marine-Noise_TechnicalSupportInformation_FINAL20170918.pdf

9. It is crucial that ISA provides stakeholders with available information on all data relevant for environmental impacts. Those have to be publicly and easily available. Failing to do so undermines the efforts for effective environmental protection.

Specific Comments

Page	Line	Comment
Back-ground	No. 3	<p>Public stakeholder consultation is necessary to allow for transparency and the inclusion of relevant stakeholder feedback into the EIA process. It is therefore not acceptable to have stakeholder consultation only as a recommendation. Moreover, there have to be binding provisions stating that the stakeholder submissions have to be considered. Stakeholder consultation in the EIA process have to be a binding requirement and therefore should be included in the standard. Justification of a non-binding recommendation with the Draft Exploitation Regulations is obsolete as these are still at a drafting stage and should be amended themselves with a binding requirement on stakeholder consultation in the EIA process.</p> <p>We strongly suggest that ISA consults the <i>UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention)</i> as a state of the art agreement on stakeholder involvement and public participation https://unece.org/environment-policy/public-participation/aarhus-convention/introduction.</p>
3	108	A no action alternative should be included.
7	262 et sqq.	Contractors should make use of specific species, threats or pressure related EIA guidelines endorsed or adopted by other multilateral agreements (e.g. <i>Convention on the Conservation of Migratory Species of Wild Animals (CMS)</i>

		<i>Family Guidelines on Environmental Impact Assessments for Marine Noise-generating Activities, EU Marine Strategy Framework Directive)</i>
8	299	Also applies to other parts of the document: A binding standard for significant adverse effects has to be defined.
14	505, 506	While under 505 the term “stocks” is used, under 506 “population” is used. We ask ISA to give a clarification on use of terminology, particularly regarding the categorization of consequences.
29	980-995	Lacking knowledge for defining thresholds indicates that allowing for exploitation activities is premature and such knowledge has to be built up first (precautionary principle). It is not acceptable that definition and application of the thresholds is left to the applicant or Contractor. ISA would neglect its obligation as regulator for activities in the Area (this, unfortunately, appears to be the case repeatedly in the draft standards and guidelines).
22	721-731	Insert an example on underwater noise: New No. 3. <u>What sources of underwater noise will be present? What is their Sound Pressure Level, Sound Exposure Level, and particle motion (through water and substrate)? What is the estimated range of impact of the noise sources? What is the expected duration of noise-generating activities?</u>
22	740-751	Insert an example for underwater noise measurement: <ul style="list-style-type: none"> • <u>Noise and vibration propagation modelling and verification in the field</u>
22	752-752	Add this bullet: <ul style="list-style-type: none"> • <u>Noise and vibration propagation modelling</u>
23	791	Please note that noise may cease after the mining operation (or during a break) but its impacts on marine life may persist (e.g. there is documented proof of long-term effects on reflex responses, mortality rates, immunosuppression, and nutritional condition months or even a year after the noise had ceased).
23-24	782-825	Some noise emissions from DSM will reach beyond the mined areas and will likely have negative impacts on marine life beyond those regions. Some DSM noise sources are estimated to reach at least a distance of 500 km at levels 10 times over background natural ambient levels. These could affect whale species in addition to fish and invertebrates such as squid or others. Furthermore, there will be potential cumulative effects from other noise sources as well as non-noise stressors that need to be accounted for. It is particularly important to assess the impacts of noise from mining activities (including involved vessel-based noise) on APEIs. The proposed questions shall be adjusted accordingly to similar processes and amended by e.g. amending

		<p>para. 802 Legal issues with the following question:</p> <ul style="list-style-type: none"> Are the areas and/or species affected by transboundary energy emission subject to national, regional or international protection status?
25	851 and 853-854	<p>Add after “assessed directly against numerical criteria and standards where these exist”:</p> <p><u>However, such standards may only address one type of impact (e.g. on hearing thresholds), whereas many more population and community-level impacts may exist for which there are no numerical criteria, yet these impacts are at least as important. The same goes for impacts on behaviour, physiology (stress), anatomy, and development, as well as masking.</u></p>
28	945-967	<p><i>E. Uncertainty:</i> There should be binding provisions stating that, in case of uncertainty about the effects of an activity on the environment, an independent and qualified scientific body has to be consulted and a public stakeholder consultation has to be conducted in order to carefully assess the potential harmful effects on the environment.</p>
29	967	<p>Add:</p> <p><u>4. Do not proceed with the activity until enough data is available for allowing an independent and qualified scientific body to assess, in a scientifically sound manner, that the activity will have no significant harmful effects on the environment.</u></p>
31	1045 et sqq.	<p>This Mitigation hierarchy is only in parts suitable for DSM. To our best knowledge, post-mining restoration in deep-sea environments is likely to be impossible, what makes offsets inappropriate and leading to a net loss of biodiversity. Avoidance/prevention as well as minimizing harmful impacts on the environment are applicable steps and should be focused on. Best Available Technology and Best Environmental Practice should be applied in order to reduce harmful impacts, especially as DSM is a new activity with lots of uncertainties.</p>
31	1049 - 1061	<p>“...redesigning methods, adaption of technology, scaling down operations...” are minimizing measures and should hence be moved to 3. <i>Minimise</i> (instead of 2. <i>Avoid/prevent</i>).</p>
39	1344 - 1353	<p><i>Appendix 1:</i></p> <p>There are multiple noise sources from DSM activities in different water depths. These should be described more comprehensively and with more detail within ISA’s regulations. The following sources should be included:</p> <ul style="list-style-type: none"> Noise emissions originating from the surface include acoustic exploration methods (sonar, seismic methods), vessel/platform propulsion and

dynamic positioning (DP), noise from machinery and processing of ore (including pumps), offtake vessels, supply vessels, monitoring vessels and research vessels.

- Riser systems, as well as motors of AUVs and ROVs, will likely be the major midwater noise sources.
- Seabed or near-seafloor noise and vibration sources include acoustic exploration close to the seabed, noise emissions from extraction (drilling, dredging, cutting, scraping) and machinery (e.g. subsea lift pump, collector and cutting machines) as well as ROVs and AUVs.

Limited and incomplete reference to peer industry regulations, academia and one single DSM project, as done in this table, are not sufficient. Moreover, the indicated references supporting assessment of impacts need to be reviewed as some of the referenced documents do not include any information on noise (see comment below).

The table in Appendix 1 claims there are thresholds from the oil and gas industry and academia related to noise and impact assessment. Firstly, these thresholds only refer to TTS (temporary threshold shift) and PTS (permanent threshold shift), i.e. hearing impairment. Secondly, they are controversial and usually based on limited experiments on a few individuals of a few species of captive animals. Thirdly, hearing impairment thresholds will not address population and community-level impacts from noise for which there are no numerical criteria, yet these impacts are at least as important. The same goes for impacts on behaviour, physiology (stress), anatomy, and development, as well as masking. There are also no thresholds for cumulative sources of noise, nor cumulative and synergistic impacts from several stressors at once, which will be the case for DSM (plumes, toxins, noise, etc.).

We do not see invertebrates represented under “ecosystems” anywhere except on the seafloor, yet many invertebrates (squid, jellyfish, larval forms, etc.) live in the water column.

Under “Impact”, we are not sure whether multibeam sonar systems, side scanning sonars, etc., and other technologies to image the seafloor are included. These are not incidental or accidental to operations, but are purposeful additions of sound. Please specify.

In order to properly address noise as a major pollutant from DSM activities, ISA, together with the most qualified marine biologists, acoustic experts and engineering experts as well as other competent regulative bodies and with transparency towards all stakeholders, needs to set up its own, stringent and holistic regulations, standards and guidelines on EIA for noise emissions from DSM activities.

		<p>We kindly invite you to have a look at the Convention on the Conservation of Migratory Species of Wild Animals (CMS) Family Guidelines on Environmental Impact Assessments for Marine Noise-generating Activities (as inspiration for a standard) and their technical support information (as model for a guideline)</p> <p>CMS Family Guidelines: https://www.cms.int/sites/default/files/document/cms_cop12_res.12.14_marine-noise_e.pdf</p> <p>Technical Support information: https://www.cms.int/sites/default/files/basic_page_documents/CMS-Guidelines-EIA-Marine-Noise_TechnicalSupportInformation_FINAL20170918.pdf</p> <p>Other inspiration can be drawn from the Guidelines to Address the Impact of Anthropogenic Noise on Cetaceans in the ACCOBAMS Area in Annex 2 of Resolution 7.13 (ACCOBAMS-MOP7/2019/Doc38/Annex15/Res. 7.13 https://accobams.org/wp-content/uploads/2019/12/Res.7.13_Anthropogenic-Noise.pdf).</p> <p>Regarding the development of underwater noise EIA regulations for DSM activities we strongly recommend you to consult with the competent bodies of international agreements and organizations. We recommend a collaboration with the <i>Joint CMS/ASCOBANS/ACCOBAMS Noise Working Group (Joint NWG)</i> that has been established with members and observers of the scientific and advisory bodies of the Convention on Migratory Species (CMS), the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS) and Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS): https://accobams.org/wp-content/uploads/2019/12/WG_Noise.pdf. External experts can be invited to participate in the Joint NWG in order to ensure the best possible advice can be generated and expertise extended to all relevant fields regarding the noise and noise impact assessment from DSM activities.</p> <p>We also recommend a collaboration with the Scientific Committee of the International Whaling Commission https://iwc.int/scientific-committee.</p>
41	1357 - 1358	Reference No. 2: The Canada-Newfoundland and Labrador Offshore Petroleum Board Offshore Waste Treatment Guidelines do not include provisions on noise.
41	1384 - 1387	Reference No. 10: We strongly advice to include the CMS Family Guidelines here: https://www.cms.int/sites/default/files/document/cms_cop12_res.12.14_marine-noise_e.pdf Technical Support information: https://www.cms.int/sites/default/files/basic_page_documents/CMS-

		<p>Guidelines-EIA-Marine-Noise TechnicalSupportInformation FINAL20170918.pdf</p> <p>Other inspiration can be drawn from the Guidelines to Address the Impact of Anthropogenic Noise on Cetaceans in the ACCOBAMS Area in Annex 2 of Resolution 7.13 (ACCOBAMS-MOP7/2019/Doc38/Annex15/Res. 7.13 https://accobams.org/wp-content/uploads/2019/12/Res.7.13_Anthropogenic-Noise.pdf).</p> <p>The <i>Marine Strategy Framework Directive Good Environmental Status</i>, particularly <i>Descriptor 11 Introduction of energy (including underwater noise) does not adversely affect the ecosystem</i> has to be considered when developing the noise regulations of ISA for DSM activities. https://ec.europa.eu/environment/marine/good-environmental-status/descriptor-11/index_en.htm</p>
42	1395 - 1399	Reference No. 13: This publication includes no data on sound emissions from DSM activities. It only draws (very limited) conclusions from noise measurements in related industries (mainly dredging). It clearly shows that data for proper EIA on noise emissions from DSM activities is not available at this stage.
<i>Additional rows can be added to this table by selecting "Table" followed by "insert" and "rows below"</i>		

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