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Annex IV Section 1. Introduction

4. Kindly provide the proposed amendments to the regulation or standard or guideline in the text box below, using the "track changes" function in Microsoft Word. Please only reproduce the parts of the text that are being amended or deleted.

1.5.3 Consultation overview.

Provide overview of mandatory, as well as any voluntary, stakeholder consultation processes and consultations.

5. Please indicate the rationale for the proposal. [150-word limit]

In section 1.5.3 in the Introduction of the EIS Template, we suggest edits to clarify that the Contractor may have followed the mandatory stakeholder consultation process and also elected to carry out additional voluntary consultations.

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Annex IV Section 2. Policy, legal and administrative context

- 4. Kindly provide the proposed amendments to the regulation or standard or guideline in the text box below, using the "track changes" function in Microsoft Word. Please only reproduce the parts of the text that are being amended or deleted.
 - 2.6 Ecologically and/or Biologically Significant Areas (EBSAs) and Areabased management tools

Describe any relevant area-based [designation and/or] management tools established under subregional, regional or global processes and the scope, geographical coverage[, supporting data,] and objectives of such tools. Also describe any relevant area-based [designation and/or] management tools in adjacent areas under national jurisdiction.

5. Please indicate the rationale for the proposal. [150-word limit]

In Section 2.6, we recommend that area-based management tools be referenced in the text.

TEMPLATE FOR SUBMISSION OF TEXTUAL PROPOSALS DURING THE 28^{TH} SESSION: COUNCIL - PART II

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Annex IV Section 3. Description of the proposed project

4. Kindly provide the proposed amendments to the regulation or standard or guideline in the text box below, using the "track changes" function in Microsoft Word. Please only reproduce the parts of the text that are being amended or deleted.

3.1.1Location

(...)

<u>The map should indicate a</u>Areas of Particular Environmental Interest, Sites[/<u>Areas]</u> in Need of Protection, or other sites designated for particular status under the rules, regulations, procedures, Standards, or Regional Environmental Management Plans of the Authority.

(...)

3.3.2 Mining Equipment

(...)

Provide details of Imethodologies of exploitation (drilling, dredging, excavating, disposing of waste, constructing and operating or maintaining installations, pipelines and other devices) and give specifications of] the technologies to be employed, including relevant diagrams and drawings, that address: the Mining Workplan, timelines and the general mining sequence, the technologies to be employed to recover the resource from the seabed, the depth of penetration into the seabed the specific technologies developed to reduce the direct impact of mining activities (e.g. noise, light, plumes) and other details of the mining activities subsea and on the surface. , Describe the energy requirements of the requisite machinery.

3.3.3 Transport/materials handling

Provide a description of all methods to be used to transport the mineral-bearing ore, including from the sea floor to the surface, and any methods related to the trans-shipment of the mineral-bearing ore, including transfers at sea. (...)

Describe the energy requirements of the requisite machinery.

3.3.4 On-site processing

(...)

Include a description of the waste management, transport, disposal and discharge of sediment, wastes or other effluents into the Marine Environment and the disposal of waste from general ship operations, including the specific technologies and methods to be adopted to reduce harmful impacts of such disposal to the marine environment. Describe the management of shipboard wastes to be transported to shore-based disposal facilities, including the handling and management of hazardous materials should also be described, together with a description of the nature of such material and its transportation, storage and disposal. Describe the energy requirements of the requisite machinery. Also, a description of any specific technologies developed to reduce impacts should be included.

5. Please indicate the rationale for the proposal. [150-word limit]

In section 3.1.1, we suggest an edit to clarify that the features listed should be indicated on the map as part of project area definition in Section 3.1.

We further note that the section on Support Equipment (previously 3.3.5) has been removed from the text. We therefore recommend retaining text addressing the energy requirements of the requisite machine for Mining Equipment, Transport/materials handling and On-site processing in sections 3.3.2, 3.3.3 and 3.3.4, respectively.

Commented [11]: 1. I'm not familiar with the term "energy requirements." While I know that this term was included in a previous version of the facilitator's text, just double checking that this is a commonly understood term to those with technical expertise?

2. Additionally, the rationale for this change strikes me as a bit confusing. While the Support Equipment text 3.3.5 was removed, the "energy requirements" text was not limited to 3.3.5. It appeared in 3.3.2, 3.3.3, and 3.3.4 (where the submission proposes that it be reinserted). Therefore, it's not clear to me why the removal of 3.3.5 provides a rationale for reinserting text in 3.3.2, 3.3.3, and 3.3.4? Propose that it may be clearer to add a sentence regarding why retaining a reference to energy requirements is important.

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Annex IV Section 3bis Methodology for Description of the Marine Environment and Assessment of Impacts and Environmental Effects

4. Kindly provide the proposed amendments to the regulation or standard or guideline in the text box below, using the "track changes" function in Microsoft Word. Please only reproduce the parts of the text that are being amended or deleted.

Section 3bis Methodology for Description of the Marine Environment and Assessment of Impacts and Environmental Effects

Methodological approaches should be consistent with established community standards. In the case that novel sampling techniques, new technology, or sampling designs are employed, particularly detailed methodology and justification should be provided in this section.

3bis.1 Studies completed

Describe any prior research/Exploration that could provide relevant information for this Environmental Impact Statement and future activities. These studies should be detailed in the appendices.

3bis.2 Methodology for Collecting Baseline Data

(...)

Highlight any deviations from baseline data collection requirements provided in relevant Standards and Guidelines, and the Regional Environmental Management Plan, and provide a rationale for those deviations.

Raw baseline data and computer code, with sufficient metadata and code comments, used to analyse and provide a description of the Marine Environment shall be included in the annexures of the Environmental Impact Statement or, if the data and/or code haves been previously submitted to the Authority, the applicant may provide a link to the Authority's database where the data and/or code

<u>areis</u> stored or other location where such information has been made available online.

5. Please indicate the rationale for the proposal. [150-word limit]

In Section 3bis, we propose the addition of a chapeau to specify the importance of detailed explanations for any new methodologies that may be applied and may differ from established community standards of practice.

In section 3bis.1, we propose a minor edit to clarify that studies are to be detailed in the appendices. In section 3bis.2, we suggest that the text specify that a rationale should be provided for any deviation from the requirements for baseline data collection. We further recommend that computer code be submitted with comments to aid interpretability, and that datasets submitted have sufficient metadata.

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Annex IV Section 5. Description of the existing biological environment

4. Kindly provide the proposed amendments to the regulation or standard or guideline in the text box below, using the "track changes" function in Microsoft Word. Please only reproduce the parts of the text that are being amended or deleted.

5.4 Biological environment

Provide a description of biological properties in the <u>mine site and</u> Impact Area, including diversity, abundance, biomass, life history parameters, relevant behaviour, including feeding rates, community-level analyses, connectivity, trophic relationships, resilience, ecosystem functions and services as well as <u>seasonality and</u> spatial (horizontal and vertical) and temporal variability. Any work on ecosystem models and appropriate ecosystem indicators, etc., should also be presented here. This section should span the size range from megafauna to microbial communities.

The description of the fauna is structured by depth range, as this enables a direct linkage to the source and location of an impact. For each depth zone, -(at least surface, midwater and benthic as below) there should be an inventory of the known taxonomic/ecological groups (e.g., plankton, fish, marine mammals, marine turtles, benthic microbial invertebrates, demersal scavengers) per the Authority's Guidelines.

(...)

5.4.3 Benthic

Describe the known benthic microbial, invertebrate and fish communities, including infauna, epifauna and demersal fish, up to an altitude of 50 metres above the sea floor. This inventory should include considerations of species richness, biodiversity, faunal densities, taxonomic uniqueness, community structures and connectivity, etc. Ecosystem functions, such as Boioturbation, habitat creation supply and elemental cycling etc. should also be covered in this section. Address factors provided in 5.4, as well as spatial and temporal variability and patchiness.

5.4.4Ecosystem/community-level description

Summarize existing community and ecosystem studies that integrate elements of the above sections. The summary should consider productivity, habitat heterogeneity, food-web complexity, carbon and nutrient cycling, benthopelagic coupling, biodiversity, succession, stability, the potential toxicity effects of plumes, bioavailability of toxins, trophic relationships, ecosystem functioning, benthic pelagic couplings, ecosystem connectivity, early life history stages, recruitment and behavioural information. Name any unique, rare and threatened elements, outline which habitats and communities can be considered representative and their distribution, indicate existence and connectivity to the same habitats and communities outside the mine site and the potential impact zone.

Alt. 5.4.4 Ecosystem/community-level description

Summarize existing community and ecosystem-level studies. This should include integration of connectivity studies (e.g. life history and recruitment research), trophic interactions and the linkages between food energy and contaminants in the food chain (including benthopelagic couplings) and ecosystem functioning / services. Food energy linkages and the complexity of the food web should be included, giving consideration to the impacts that may result from contaminants or other disruptions to the food web. Understanding across depths should be provided. Emphasis might be placed on knowledge of trophic levels, the degree of interaction between benthic and pelagic communities, whether there are specialized predators that could be more vulnerable than generalists, and the complexity of the food web and species interactions, with a view to gaining an idea of the resilience of the system to disturbances. It is important to consider wider community relationships to enable assessments to move beyond community descriptions to incorporate potential changes in ecosystem function.

5. Please indicate the rationale for the proposal. [150-word limit]

In the first paragraph of Section 5.4, we recommend that the phrasing "mine site and impact area" be used for consistency with other parts of the regulations.

In the second paragraph of Section 5.4, we recommend additions to the text to specify that the description of fauna involves an inventory of known taxonomic/ecological groups. In Section 5.4.3, we propose similar changes along with several additional considerations for the benthic community inventory.

Regarding subsection 5.4.4 on the Ecosystem/community-level description, we prefer Alt. 5.4.4 since the text appears to be more consistent with the subject of the section in this version.

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Annex IV Section 8. Assessment of impacts on the biological environment

4. Kindly provide the proposed amendments to the regulation or standard or guideline in the text box below, using the "track changes" function in Microsoft Word. Please only reproduce the parts of the text that are being amended or deleted.

8.9 Accidental events and Natural hazards

<u>Discuss impacts to the biological environment of accidental events and the cumulative effects of the mining operation and natural hazards and the measures that will be taken to avoid, remedy or mitigate those impacts.</u>

5. Please indicate the rationale for the proposal. [150-word limit]

We propose the addition of a new subsection 8.9 for the consideration of Accidental events and Natural Hazards, which we note is considered in Section 7.8 as part of Section 7 for the Assessment of impacts on the physical, chemical and geological environment. Accidental events and natural hazards have the potential to have large implications for the biological environment, so we consider this an important element to include in an evaluation of potential biological impacts from the project.

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Annex IV Section 9. Assessment of impacts on the socioeconomic and sociocultural environment and proposed Mitigation

- 4. Kindly provide the proposed amendments to the regulation or standard or guideline in the text box below, using the "track changes" function in Microsoft Word. Please only reproduce the parts of the text that are being amended or deleted.
- 9. Assessment of impacts on the socioeconomic and sociocultural environment and proposed Mitigation

Provide a detailed description and evaluation of potential impacts and Environmental Effects of the operation to the socioeconomic and sociocultural components identified in section 6. (...)

A description of the benefits to mankind may be included. Attitudes towards, and perceptions of, the proposed project are among the variables that should be considered in determining the significance of impacts. The potential for accidental events <u>and natural hazards</u> should also be considered.

5. Please indicate the rationale for the proposal. [150-word limit]

In the chapeau of Section 9, we recommend that the text include consideration of natural hazards together with accidental events, as is done throughout the EIS template.