Twenty-seventh session Council session, part II Kingston, 18-29 July 2022 Item 11 of the agenda Draft regulations on exploitation of mineral resources in the Area

Draft regulations on exploitation of mineral resources in the Area

Parts IV and VI and related Annexes

Prepared by the Facilitator, Ms. Raijeli Taga (Fiji), of the Informal Working Group on the protection and preservation of the marine environment

1. According to the mandate and working modalities set out in the annex to the Counsels decision during the twenty-sixth session of the Authority (ISBA/26/C/11), the Informal Working Group on the protection and preservation of the marine environment has been working on a revision of the draft regulations on exploitation of mineral resources in the Area (ISBA/25/C/WP.1).

2. On 8 February 2022 I provided my suggested revisions to the draft regulations (ISBA/27/C/IWG/ENV/CRP.1), which was aimed at facilitating textbased negotiations and included textual proposals to the draft regulations. During the meetings in March 2022, delegations and observers discussed the draft text and 129 proposals were submitted using the template provided by the secretariat. Subsequently, 133 proposals were provided by delegations and observers by 15 April 2022.

3. Based on the discussions and proposals provided during the March 2022 session and after the session by 15 April, I have prepared this revised text ("the Facilitator's revised text") to assist in the discussions in the Informal Working Group, again with a view to facilitating the finalization of the work of the group.

4. The enclosure presents a further revised draft version of Parts IV and VI and Annexes IV, VII and VIII of the draft regulations.

5. In addition, the mark-up text in the version of the text that was provided on 8 February 2022 (ISBA/27/C/IWG/ENV/CRP.1) has been accepted to the extent that there has been consensus as to the content.

6. The further revisions are reflected as mark-up text against the version that was provided on 8 February 2022.

7. I have used the same approach to the revisions as for the Facilitator's text:

(a) Only those proposals in respect of which there has been no express opposition to are reflected in the text. This is without prejudice to their future consideration or the possibility for delegations to re-introduce textual proposals not incorporated in the present revised text.

(b) Ideas that reflected a general direction in the discussions have been incorporated, although the precise textual formulations proposed by delegations

may not always have been utilized. While not every individual idea or proposal is necessarily reflected, the text presented is an attempt at reflecting the general thrust of those ideas and proposals.

(c) Where general comments were made but no drafting suggestions were provided or where several drafting suggestions were made going in a similar direction without being identical, I am proposing wording for the consideration of delegations.

(d) Square brackets are introduced for proposals for which conceptual discussion are expected and where further work might be requested by the Council. The absence of square brackets does not imply agreement on the ideas, content or specific language reflected in a provision. The absence of brackets around new ideas which are reflected for the first time in the draft text should not be taken as a fait accompli as to their inclusion. Equally, the fact that regulations have not been revised should not be taken to indicate agreement on the unrevised provisions.

(e) Options have been used throughout the text to present alternative conceptual approaches. The order in which options appear in the text should not be taken as indicating any suggested order of priority, nor as indication of the level of support for any particular option.

(f) Boxes are containing explanations of revisions and/or my comments, where necessary, are included under the relevant articles or sections.

8. Proposals for the Schedule have also been provided. Given the distribution of work endorsed by the Council at its last meeting on the basis of the briefing paper of the President (https://isa.org.jm/files/2022-03/President-Briefing-Note-31032022.pdf), I recommend that these proposals and suggested amendments be transferred to the Plenary for its consideration at a later stage.

9. Please bear in mind that the work and results of the Informal Working Group should be fully consistent with the provisions of the Convention and the 1994 Agreement, and the process and its result should not undermine existing relevant legal instruments and frameworks and relevant global, regional and sectoral bodies.

Enclosure

Further revisions to the relevant parts and Annexes of the Draft Regulations

Part IV Protection and preservation of the Marine Environment

Section 1 Obligations relating to the Marine Environment

Regulation 44 General obligations

1. The Authority, sponsoring States, the Enterprise and Contractors shall <u>each</u>, within their respective competence, adopt, plan, implement and modify measures necessary for ensuring effective protection of the Marine Environment, including [rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species] and other forms of marine life, from harmful effects [directly resulting from Exploitation in the Area or from shipboard dewatering immediately above a mine site of minerals derived from that mine site,] [which may arise from activities in the Area], in accordance with the Rules of the Authority, Guidelines referred to in regulation 45 and the applicable Regional Management Environmental Plan. To this end:

(a) <u>In adopting and keeping</u> under periodic review rules, regulations and procedures, <u>as well as the Standards and Guidelines</u> in accordance with the Convention and the Agreement, the Authority shall:

(i) Apply the precautionary [approach] [principle], as reflected in principle 15 of the Rio Declaration on Environment and Development and the <u>ecosystem-based management approach</u> to the assessment and management of risk<u>of harm</u> to the Marine Environment from Exploitation in the Area;

(ii) Apply the Best Available Techniques and Best Environmental Practices;

(iii) Integrate Best Available Scientific Evidence in decision-making, including all risk assessments and management undertaken in connection with environmental assessments, and the management and response measures taken under or in accordance with Best Environmental Practices; and

(iv) <u>Ensure</u> accountability and transparency in the assessment, evaluation and management of Environmental Effects<u>and risks</u> from Exploitation in the Area, including through <u>S</u>stakeholder <u>participation</u> and the timely <u>public</u> release of relevant environmental data and information<u>at regular intervals and in an accessible format</u> through the Authority's website.

(iv)bis Take into account the approach that the polluter should, in principle, bear the cost of pollution, endeavour to promote practices whereby those engaged in exploitation activities bear the cost of meeting the pollution prevention and control requirements for the authorized activities, having due regard to the public interest. (v)ter In implementing the regulations, act so as not to transfer, directly or indirectly, damage or likelihood of damage from one part of the environment to another or transform one type of pollution into another.

(b) In taking all necessary measures to ensure that the Contractor carries out Exploitation in the Area in conformity with the terms of its contract and its obligations under the-<u>Rules of</u> the Authority related to the <u>effective</u> protection for the Marine Environment from harmful effects, the Sponsoring State shall <u>assist the Authority to</u> implement, mutatis mutandis, the measures set out under paragraph (a)(i) to (iv) above.

(c) In taking necessary measures to prevent, reduce and control pollution and other hazards_to the Marine Environment, including the coastline, and of interference with the ecological balance of the Marine Environment arising from Exploitation in the Area, the Enterprise and Contractors shall implement, mutatis mutandis, the measures set out under paragraph (a)(i) to (iii) above and demonstrate accountability and transparency in the assessment, evaluation and management of Environmental Effects and risks from Exploitation in the Area, including through <u>Stakeholder participation</u> and the timely <u>public</u>_release of environmental data and information_on their respective activities at regular intervals and in an accessible format. In so doing, the Enterprise and Contractors shall apply a priority order to avoid, minimize, mitigate, and remediate harm to the marine environment. as well as adapt the necessary measures to newly emerged information and data.

2. In adopting laws and regulations, in accordance with the Convention, to prevent, reduce and control pollution of the marine environment from Exploitation_in the Area undertaken by vessels, installations, structures and other devices flying their flag or of their registry or operating under their authority, as the case may be, States shall implement, *mutatis mutandis*, the measures set out under paragraph 1(a)(i) to (iv) above.3. The Legal and Technical Commission shall make recommendations on the implementation of paragraphs 1 and 2 ab

Explanation / comment

- I noted that there were many proposals to include references to various legal sources within the framework of the Rules of the Authority. I have made some changes to this Regulation taking into consideration that the definition of Rules of the Authority contained in the Schedule is comprehensive, incorporating references to the Convention and the 1994 Agreement as a whole, and that Standards are part of the Rules, Regulations and procedures of the Authority as defined in Article 17 (1) (b) (xii) of Annex III to the Convention. I have kept 'best available scientific evidence' as this is a term defined in the Schedule and is also used across various provisions in the draft regulations.
- The text on shipboard processing is reflective of Annex III, Article 17, paragraph 2(f). In view of this, I suggest making a broader reference to the Convention, since the text draws from several provisions of the Convention (Articles 145, 194 (5) and Annex III, Article 17, paragraph 2(f).
- In relation to the sentence starting with "rare or fragile ecosystems" in Regulation 44(1), I invite delegations to consider this inclusion, especially in relation to the definitions.

- On draft regulation 44(1)(a)(iv), I merged the different proposals made by various delegations and I opted to make a broader reference to the Authority's website where the relevant database platform is hosted.
- I note that there were some textual proposals suggesting to add elements on information gaps. However, I believe it is already well covered by the application of the precautionary approach/principle.
- The proponent is requested to clarify the bracketed text in paragraph 1(iv) bis.
- I have attempted to merge all proposals made for this paragraph 1 (c), as there were a number of ideas in relation to this paragraph which made the text difficult to follow.
- Paragraph 3 has been deleted as some delegations favoured its deletion.
- I have not included in the text a proposal to refer to more stringent measures, given that it was not entirely clear as to its relationship with annex III, Article 21 (3) of the Convention. I invite the proponent to further clarify the proposed text.
- I noted that there was a proposal regarding the purpose of an Environmental policy of the Authority and its basis. I have not included this suggestion as I believe the policy powers are well defined in the Convention.

Regulation 44bis Regional Environmental Management Plans

<u>Alt 1</u>

An application for a Plan of Work shall not be considered by the Commission until and unless a Regional Environmental Management Plan has been adopted by the Council for the particular area concerned. In the event that an application for a Plan of Work is submitted for an area where no such Regional Environmental Management Plan exists, the drafting of a Regional Environmental Management Plan applicable to the area in concern shall be prioritised and adopted without any undue delay, taking into account Section 2, Article 15 b/c of the 1994 Implementing Agreement.]

<u>Alt 2</u>

Before the establishment of a Regional Environmental Management PlanREMP in all the regions where exploration contracts already exist, the commerical production in the Area shall not be allowed.

<u>Alt 3</u>

<u>A Regional Environmental Management Plan for the particular area</u> concerned should be adopted by the Council before seeking the application for a Plan of Work for that area. In the event, that an application for a Plan of Work is submitted for an area where no such Regional Environmental Management Plan exists, the drafting of a Regional Environmental Management Plan applicable to the area in concern shall be prioritised and adopted within one year without any undue delay, taking into account Section 2, Article 15 b/c of the 1994 Implementing Agreement.

Explanation / comment

- The insertion of this provision attracted divergent views. As there was one objection to including this provision, I have left the text in square brackets. From the textual proposals I have identified three alternatives for consideration.
- In respect of comments in reference to a standardised approach to REMPS, I took note of the views expressed in the March 2022 meeting, that it is not the appropriate place to refer to it, as REMPs are relevant to other aspects of the Authority's work, beyond its work relating to exploitation.

Regulation 45

Development of environmental Standards and Guidelines

[1.] Environmental Standards <u>and Guidelines</u> shall be developed_in accordance with regulation[s] 94<u>and 95</u> and shall include, <u>inter alia</u>, the following subject matters:

(a) Environmental quality objectives <u>[and indicators]</u>, including on <u>ecological balance of the marine environment</u>, biodiversity status, plume density, <u>toxicity</u>, <u>composition</u>, <u>chemistry</u>, <u>extent</u>, <u>and</u> <u>sedimentation rates</u> <u>and light and</u> <u>noise emissions</u>,

(b) Monitoring procedures,; and

(c) <u>Mitigation measures</u>Prevention, reduction and control measures and/or remediation of- environmental harm, $\frac{1}{r}$

(bd) Baseline Data collection,

(ee) Technical requirements with regard to the equipment used for the exploitation activities and

(f) Quantitative assessment of environmental effects.

[2. The Authority shall not approve any Exploitation activities unless the necessary environmental Standards [and Guidelines] have been adopted.]

Explanation / comment

- I took note that there were a number of proposals for the chapeau which I streamlined in order to make it consistent with the reference to regulations 94 and 95.
- It was suggested to insert thresholds in the Regulation. The definition of thresholds is detailed and must be subject to local conditions. I therefore suggest to leave the regulation of thresholds to the Standard and Guidelines.
- There were a number of proposals to add paragraph two but I will invite further discussions on the content of it.

Regulation 46

Environmental management system

1. A Contractor shall develop, implement and maintain an environmental management system, in <u>conformitycompliance</u> with the Standards_and taking account of the relevant Guidelines.

[1bis The Commission will develop a document that will set the binding minimum Standards for an Environmental Management Plan System.

<u>1ter</u> <u>Compliance with this regulation is a fundamental term of the contract, for</u> the purposes of Rregulation 103.]

2. An environmental management system shall:

(a) Deliver the Authority's environmental objectives in the project area as reflected in the Environmental Management and Monitoring Plan;

(b) Be audited <u>[annually]</u> by an independent recognized and accredited international or national organization; and

(c) <u>Facilitate</u> effective reporting to the Authority in connection with environmental performance, <u>pursuant to Regulations 33, 34, 38, 39–, 52 and, 58.</u>

(d)- [Undergo an annual management review and include the results in the Contractor's annual reports and the performance assessment of the Environmental Management and Monitoring Plan under Rregulation 52].

(e) <u>Be in accordance with Good</u> Industry Practice and Internationally Recognized Standards.

Explanation / comment

- I understand that the Environmental Management System will be a part (a subset) of the overall Safety Management System. Risk management tools are already regulated by e.g., ISO 9000, ISO 14000 and ISO 31000. Therefore, I invite for discussion and considerations on whether it is necessary to create specific requirements for the Environmental Management System.
- Whilst I retained reference to the Authority's environmental objectives in this draft, I believe that it is important that the Working Group has a discussion on who should develop these environmental objectives for the project area referred to in paragraph 2 (a).
- In paragraph 2(b) there were proposals to include a periodicity for the audit to make it annually.
- In view of the proposals made in this paragraph in relation to reporting requirements, I believe it is important for the Working Group to have a targeted discussion on these aspects, as this relates also to matters concerning Regulation 38 and 52, including the reporting burden for the contractor and the commission.

Regulation 46bis Environmental impact assessment

1. An applicant or Contractor, as the case may be, shall carry out an environmental impact assessment <u>process on of</u> the potential effects on the marine environment of the proposed mining operation in accordance with these regulations and the applicable Standard and <u>taking into account the relevant</u> <u>Guidelines</u> as well as Good Industry Practice, Best Available Scientific Evidence, Best Environmental Practices and Best Available Techniques.

<u>Ibis</u> In the conduct of the environmental impact assessment, the Sponsoring State and Contractor shall maintain consultations, including a system of prior notification, with any coastal State across whose jurisdiction resource deposits in the Area lie, with a view to avoiding infringement of their rights and interests, in accordance with Regulation 4.

2. The environmental impact assessment <u>process</u> shall include <u>the following</u> <u>steps</u>:

(a) <u>A Sscoping process</u> to identify and prioritize the main activities and potential impacts associated with the proposed mining operation, <u>as well as to</u> <u>identify and engage with Stakeholders</u>, in order to focus the Environmental Impact Statement on the key environmental issues.

(b) <u>An Environmental Limpact assessment and evaluation process</u> to describe and predict the nature and extent of the Environmental Effects of the mining operation, including cumulative impacts and residual effects using Best Available Scientific Evidence, <u>Best Environmental Practices</u>, <u>Best Available Techniques</u>, and <u>Good Industry Practice and taking into account</u>, where applicable:

[(i) The intensity or severity of the impact at the specific site being affected;

(ii) The spatial extent of the impact relative to the availability of the habitat type affected;

(iii) The sensitivity/vulnerability of the ecosystem to the impact;

(iv) The ability of an ecosystem to recover from harm, and the rate of such recovery;

(v) The extent to which ecosystem functions may be altered by the impact; and

(vi) The timing and duration of the impact relative to the period in which a species needs the habitat during one or more of its life-history stages.]

(c) <u>The Identification of measures envisaged</u> to prevent, mitigate or if <u>possible</u>, offset, and manage harmful <u>Environmental E</u>ffects <u>and risks</u> to as low as practicable, including through the development and preparation of an Environmental Management and Monitoring Plan;

[(c)bis An analysis of reasonable alternatives to the planned activity under the jurisdiction or control of a State Party, including the no-action alternative;]

(d) <u>The preparation and submission to the Authority</u> of the Environmental Impact Statement in accordance with Regulation 47<u>and the applicable Standards</u> and <u>taking into account</u> the relevant Guidelines.

3. When, following the approval of a Plan of Work, the Contractor modifies the Plan of Work in such a way that the proposed modification constitutes a Material Change in the Environmental Management and Monitoring Plan or Closure Plan as determined under these Regulations, Sscreening shall also be part of an-the environmental impact assessment process. when, following the approval of a Plan of Work, the Contractor modifies the Plan of Work in such a way that the proposed modification constitutes a Material Change in the Environmental Management and Monitoring Plan or Closure Plan in order to determine whether a revised Environmental Impact Statement is required 4. The environmental impact assessment_process shall:

(a) Be based on relevant baseline data that captures temporal, and seasonal and spatial variation;

(b) Include an environmental risk assessment that takes into consideration the region as a whole, in accordance with the objectives and measures of the relevant Regional Environmental Management Plan, if any;

(c) Provide for <u>sStakeholder consultation in accordance with relevant</u> <u>Standards and Guidelines at the scoping stage and before the Environmental</u> <u>Impact Statement is finalized;</u> and

(d) Be subject to an independent scientific assessment prior to the submission of the <u>proposed</u> Environmental Impact Statement to the Authority.

[(e) <u>Take into account the results from test mining, in accordance with</u> <u>Regulation 48bis -]</u>

5. A Contractor shall review impact assessments, including for cumulative impacts of activities covered by the assessment, periodically <u>as indicated in the monitoring plan</u> and revise them thereafter whenever a change in the mining operation has occurred or there is relevant new information.

6. An environmental impact assessment and Environmental Impact Statement shall be considered by the Authority in accordance with Part II or regulation 57, as the case may be.

7. In accordance with article 142 of the Convention and Regulation 4 in the conduct of the environmental impact assessment, the Sponsoring State and the Contractor shall maintain consultations, including a system of prior notification, with any coastal State across whose jurisdiction resource deposits in the Area lie, across whose jurisdiction resource deposits in the Area lie with a view to avoiding infringement of their rights and interests, in accordance with Regulation 4.

[8][bis] The Environmental Impact Statement shall be in the form prescribed by the Authority in annex IV to these regulations and shall:

(a) Demonstrate that the proposed mining operation is in accordance with all relevant environmental Standards and with the requirements of the relevant Regional Environmental Management Plan.

(b) Be Based on the results of the environmental impact assessment;

(c) Identify comments received through public consultation on the environmental impact assessment and how they have been addressed;

Explanation / comment

- Based on the proposal of one delegation I have added in paragraph 1 bis in view of the proposal of one delegation, which is based on paragraph 148 of the Seabed Disputes Chamber Advisory Opinion.
- I suggest we revisit proposals to include references to test mining after further discussions. I take into account the joint proposal submitted for paragraph 2(b). I suggest that the proponents provide further rationale in the meeting and give further considerations as to whether these issues are better addressed in the Standards and Guidelines.

- References to Stakeholder consultation during the EIA process have been reflected in the text and in a streamlined manner.
- References to scientific gaps and uncertainties are already addressed through the obligation to apply the precautionary approach in Regulation 44.
- There were proposals by delegations to use this regulation to mandate inclusion of the potential effects to climate change. However, the Environmental Impact Statement as outlined in Annex IV already requires input on the climate change effects. Furthermore, issues related to assessing and regulating the impact on climate change could be best addressed at the level of guidelines.
- There is a need to clarify in the Regulations when and on the basis of what documents consultations are to be held, therefore I suggest that Stakeholder consultations be conducted at the "scoping stage" based on a scoping report (as set out in the EIA standard) and before the EIA/draft EIS (as applicable) is finalized and submitted to the Authority.
- Proposals with reference to periodicity would require clarification by the proponents.
- In respect of paragraph 46bis(7), I kept proposals that are consistent with article 142 of the Convention and regulation 4 as requested by some delegations.
- Regarding the proposal to incorporate current DR 47 into DR 46bis, this requires further discussion.

Regulation 46ter Environmental monitoring

1. <u>A The Contractor, through the pursuant to its</u> Environmental Management and Monitoring Plan required under Regulation 48, shall observe, measure, evaluate and analyse, <u>in accordance with Good Industry Practice</u>, <u>Best Available</u> <u>Scientific Evidence</u>, <u>Best Environmental Practices</u>, <u>and Best Available</u> <u>Techniques</u>, the <u>environmental</u> risks or effects of pollution and other hazards to the <u>mMarine eEnvironment of arising from</u> the mining operation following the approval of the Plan of Work. It shall keep under surveillance the effects of the mining operation to determine whether it is <u>having or</u> likely to have harmful effects on the <u>mMarine_eEnvironment</u>.

2. <u>A The Contractor shall cooperate with the Authority and the sponsoring State</u> or States in the establishment and implementation of monitoring programmes. shall establish and implement an environmental management and monitoring plan, after approval by cooperate with the Authority and the sponsoring State or States in the establishment and implementation of the Contractor's environmental monitoring programmes.

3. The Contractor shall report annually in writing <u>in accordance with these</u> <u>regulations</u> to the Secretary-General on the implementation and results of the <u>an</u> <u>environmental management and</u> monitoring <u>programme_plan</u> referred to in paragraph 2, in accordance with regulation 38, paragraph 2(g), and shall-<u>submit</u> <u>release publicly, in an accessible format, at monthly intervals</u>, data and information<u>in the required standardized format</u>, and in accordance with the

<u>relevant applicable</u> Standards, and taking into account the <u>relevant applicable</u> Guidelines_ and recommendations issued by the Commission. The Secretary-General shall transmit <u>such annual</u> reports to the Commission for its consideration pursuant to article 165 of the Convention<u>and publish them</u> <u>pursuant to Regulation 38(3)</u>.

4. In implementing paragraph 1, the Sponsoring State and Contractor shall maintain consultations, including a system of prior notification, with any coastal State across whose jurisdiction resource deposits in the Area lie, with a view to avoiding infringement of their rights and <u>legitimate</u> interests, in accordance with Regulation 4.

Explanation / comment

- I have introduced a specific reference to the EMMPs in the context of this provision in an attempt to clarify that the monitoring programme referred to is the EMMP referred to and defined in regulation 48. It must be recalled that the EMMP is part of the environmental plans as defined in the schedule. The EMMP being one of the environmental plans must be published and reviewed in accordance with regulation 11.
- In relation to paragraph 3, I have introduced proposals by delegations, and I have made it consistent with regulation 38.
- I note that there was a proposal to introduce a periodicity for monitoring programmes in general and also be subject to review of experts. However, since my intention to is ensure to this provision clarifies that environmental monitoring is conducted through the EMMP as provided in regulation 48, that is why I didn't include it.
- With regard to paragraph 4, I have kept the text in consistency with Article 142 of the convention.

Section 2

Preparation of the Environmental Impact Statement and the Environmental Management and Monitoring Plan

Regulation 47 Environmental Impact Statement

1. The purpose of the Environmental Impact Statement, which shall accompany an application for approval of a Plan of Work in accordance with regulation 7, is to document and report the results of the environmental impact assessment carried out in accordance with Regulation 46bis.

2. An applicant or Contractor, as the case may be, shall prepare an Environmental Impact Statement in accordance with this regulation and in consultation with relevant Stakeholders throughout the process.

3. The Environmental Impact Statement shall be in the form<u>and deliver the</u> <u>contents as</u> prescribed by the Authority in annex IV to these regulations and shall:

(a) <u>Be inclusive of Include</u> a prior environmental risk assessment;

(b) Be based on the results of the environmental impact assessment; including a description of the main elements of the methodology used for the identification and evaluation of the identified environmental impacts.

(c) <u>Identify-Include</u> comments received through <u>the public Stakeholder</u> consultation <u>on the environmental impact assessmentprocess</u> and how <u>such</u> <u>comments have been considered they have been addressed</u>;

(d) Be in accordance with the objectives and measures of the <u>relevant</u> <u>applicable</u> regional environmental management plan, <u>if any</u>; and

(e) Be prepared in accordance with the <u>applicable</u>_<u>relevant Standards</u> <u>Guidelines in accordance with</u> Good Industry Practice, Best Available Scientific Evidence, Best Environmental Practices and Best Available Techniques<u>and</u> <u>taking into account the relevant Guidelines</u>.

4. The Environmental Impact Statement shall demonstrate that the proposed mining operation is in accordance with all <u>relevant_applicable_environmental</u> Standards and with the requirements of the <u>relevant_applicable</u> Regional Environmental Management Plan, if any.

Explanation / comment

- I note that there was a proposal to add additional elements to paragraph one including a reference to the test mining study. However, before considering this proposal it is necessary to have a general understanding of test mining as we draft the regulations.
- I note that in paragraph 2 there were proposals to delete references to an applicant. This has happened in other parts of this text, however I think it is important to keep the reference to an applicant given that the enterprise may form joint ventures and this new form of association will be an applicant.
- In relation to paragraph 3a, there was a proposal to add details on the impact assessment process that will included in the draft Standards and Guidelines.
- I note that there was a proposal to include references to baseline studies in the context of this provision. However, this is taken care of in Annex IV.
- There was a proposal to include situations where predictive models are used, however, this deals with the methodology that could be best addressed in the context of guidelines. In addition, it only spoke of one specific method where many methods could be used including based on empirical data.

Regulation 48

Environmental Management and Monitoring Plan

1. The purpose of a <u>An Environmental Monitoring and Management Plan-is</u> to <u>shall</u> manage and confirm that Environmental impacts <u>effects</u> meet the environmental [quality] objectives and <u>[environmental performance]</u> standards for the mining operation. The plan will contain any conditions included in the Environmental Impact Statement and will set out commitments and procedures on how the environmental impacts of the mining operation will be monitored, how the Mitigation measures, including pollution control and Mining Discharge in regulations 49 and 50, will be implemented, how the effectiveness of such measures will be monitored, what the management responses will be to the monitoring results and what reporting systems will be adopted and followed. <u>Alt 1</u>

1. <u>An applicant or Contractor, as the case may be, shall prepare an</u> <u>Environmental Management and Monitoring Plan in accordance with this</u> <u>regulation.</u>

2. An applicant or Contractor, as the case may be, shall prepare an Environmental Management and Monitoring Plan in accordance with this regulation.

[2] Alt 1

The purpose of an Environmental Monitoring and Management Plan is to manage and confirm that Environmental Effects impacts- meet the environmental quality objectives and standards for the mining operation. The plan will contain any conditions included in the Environmental Impact Statement and will set out commitments and procedures on how the environmental Effects impacts of the mining operation will be monitored, how the mitigation measures, including pollution control and Mining Discharge in regulations 49 and 50, will be implemented, how the effectiveness of such measures will be monitored, what the management responses will be to the monitoring results and what reporting systems will be adopted and followed.

3. The Environmental Management and Monitoring Plan shall <u>cover-include</u> the main_all <u>aspects-matters</u> prescribed by the Authority in <u>-aA</u>nnex_VII to these regulations and shall be:

(a) Based on the environmental impact assessment and the Environmental Impact Statement;

(b) In accordance with the <u>relevant applicable</u> regional environmental management plan, <u>if any</u>; and

(c) Prepared in accordance with the applicable <u>Standards Guidelines</u>, Good Industry Practice, Best Available Scientific Evidence, Best Environmental Practices and Best Available Techniques, <u>taking account of the applicable</u> <u>Guidelines</u>; and consistent with other plans in these regulations, including the Closure Plan and the Emergency Response and Contingency Plan.

(d) <u>Ceonsistent with other plans in these regulations, including the</u> <u>Closure Plan and the Emergency Response and Contingency Plan.</u>

[3bis. A Contractor shall reflect in its Environmental Monitoring and Management Plan:

(a) <u>Its methodology for maintaining compliance with the Standards and</u> <u>thresholds of the Authority developed in accordance with Regulations 45 and 94,</u> <u>and any thresholds set by the relevant Regional Environmental Management Plan;</u>

(b) Any conditions included in the Council's environmental impact assessment decision and will set out

(c) <u>Commitments and procedures on how the Mitigation measures will be</u> implemented,

(d) How the impacts of the operation as well as the effectiveness of mitigation measures will be monitored, in accordance with Regulation 46ter and the EMMP Standard;

(e) <u>What the management responses will be to the monitoring results.]</u>

[3ter. The EMMP shall contain a monitoring programme for at least the first seven years of Exploitation, to be conducted by independent experts and in compliance with the applicable Standards.]

4. The Contractor shall provide information in its annual report on the implementation of the Environmental Management and Monitoring Plan in accordance with regulations 38, paragraph 2(g), and 46ter, paragraph 3, for evaluation by the Legal and Technical Commission, as well as publicly release, in an accessible format, monitoring data and information at monthly intervals.

<u>5bis</u> The Contractor shall allocate sufficient resources and assign roles and responsibilities to implementation of the Environmental Monitoring and Management Plan in proportion to the relevant risks and impacts.

Explanation / comment

- In paragraph 1, I included in brackets the proposed deletion of the word 'quality' and also with respect to a proposal to delete the second sentence of the text, I invite delegations which proposed those deletions to further explain the reasons behind the proposed deletions. In addition, there was another proposal to add text concerning environmental performance standards, I also invite the proponent to further explain as the text is currently in brackets. This is pertinent to understand as including the word performance would suggest that criteria would need to be developed.
- There were proposals to make reference to the Authority's policies and objectives in conformity with Regulation 2, however, I note that discussions on this Regulation are ongoing therefore I decided not to include these proposals.
- There was a proposal to include additional paragraphs to existing paragraphs 3. I welcome further explanations from the proponent on this. This would require further discussions; hence, I have included square brackets around these proposals.

Regulation 48bis Test mining

ſ

1. The purpose of test mining is to ensure that the mining equipment is technically appropriate, the operation economically efficient and that effective protection of the marine environment from harmful effects is ensured. Test mining projects shall as a general rule provide evidence that appropriate equipment is available to ensure the effective protection of the Marine Environment in accordance with Article 145.

2. Before applying for an approval of a Plan of Work, a Contractor has to provide evidence to substantiate the required information in accordance with Regulation 7. A test mining study in accordance with Annex [IVter] shall be submitted with the application for the approval of a Plan of Work.

3. Before Commercial Production may commence in accordance with Regulation 25, a Contractor shall provide evidence demonstrating its ability to ensure effective protection of the Marine Environment, if there has been a material change pursuant to Regulation 57.

4. Contractors should apply for the approval for test mining projects from the Authority in accordance with all relevant Regulations, Standards and Guidelines. The potential effects of test mining projects shall be assessed in the form of an Environmental Impact Assessment. Potentially affected States, international organisations and relevant Stakeholders shall be consulted in accordance with the relevant Standards and Guidelines.

1.5. A test mining study pursuant to Paragraphs 2 and 3 does not have to be submitted if the evidence required has been demonstrated through test mining during exploration phase or in the context of another approved Plan of Work for an exploitation project. The Contractor has to submit relevant information to the LTC. The Commission shall decide whether the submission of a test mining study pursuant to Paragraph 2 or 3 is required.]

Explanation / comment

• As agreed in the previous meeting, discussions on the concept of test mining will continue in July 2022.

Section 3 Pollution control and management of waste

Regulation 49 Pollution control

A Contractor shall take-all_necessary measures to protect and preserve the Marine Environment from harmful effects, including by preventing, reducing and controlling pollution and other hazards, including marine litter and underwater noise from its activities in the Area, in accordance with the the-its Environmental Management and Monitoring Plan and all applicable Rules of the Authority, the [relevant] applicable Regional Environmental Management Plan, if any and the applicable Standards and taking account of the applicable_Guidelines.

Explanation / comment

• I note that the inclusion of various pollution sources causes divergent views and opposition from certain delegations, hence I have opted for the deletion of those references.

Regulation 50 Restriction on Mining Discharges

1. A Contractor shall not dispose, dump or discharge into the Marine Environment any Mining Discharge, except where such disposal, dumping or discharge is permitted in accordance with:

(a) The assessment framework for Mining Discharges as set out in the Standard; and

(b) The Environmental Management and Monitoring Plan.

2. Paragraph 1 above shall not apply if such disposal, dumping or discharge into the Marine Environment is <u>carried out necessary</u> for the safety of the vessel or Installation or the safety of human life, provided that all reasonable measures are taken to minimize the likelihood of damage to human life and of <u>Serious</u> Harm to the Marine Environment_and-, if such harm has occurred, to monitor and Mitigate its impacts, [and such disposal, dumping or discharge shall be reported

forthwith to the Authority] a Contractor shall report any disposal, dumping or discharge under this paragraph to the Authority, as soon as possible.

<u>2bis. If Serious Harm to the Marine Environment occurs as a result of disposal,</u> <u>dumping or discharge in accordance with paragraph 2, the Contractor shall</u> <u>monitor and mitigate the impacts of such harm.</u>

3. The disposal, dumping or discharge into the Marine Environment of any Mining Discharge that is not in accordance with regulation 50(1) or 50(2) paragraphs 1 and 2 above is considered an Uunauthorized Mining Discharge and constitutes a Notifiable Event under regulation 34 and Appendix 1.

4. This Regulation shall be interpreted and applied in a manner that is consistent with the obligations of the Contracting Parties to the Convention on the Prevention of Marine Pollution by Dumping Wastes and Other Matters, 1972 and the 1996 Protocol thereto, where applicable, in particular Articles 4 and 10.

<u>-4bis The Contractor shall ensure compliance with the applicable international</u> rules and standards established by competent international organizations or general diplomatic conferences concerning the dumping of waste and other matters, as well as those concerning the prevention of pollution from ships.

Explanation / comment

- I added a new paragraph 4bis, combining two proposals from one delegation.
- I further made some edits to paragraph 2 to further clarify the text.

Section 4

Compliance with Environmental Management and Monitoring Plans and performance assessments

Regulation 51 Compliance with the Environmental Management and Monitoring Plan

A Contractor shall, [in accordance with] <u>implement and adhere to</u> its Environmental Management and Monitoring Plan and these regulations, <u>and</u> <u>shall</u>:

(a) Monitor <u>continuously</u> and report annually under regulation 38 (2) (g) on the Environmental Effects of its activities on the Marine Environment, <u>including a comparison between baseline data and monitoring data to document</u> the actual effects on the Marine Environment and manage all such effects as an integral part of its Exploitation activities_as set out in the <u>relevant</u> Standards and <u>taking into account the relevant Guidelines</u> referred to in regulation 45;

(b) Implement all_applicable Mitigation and management measures to ensure the effective protection of the Marine Environment from harmful effects protect the Marine Environment, as set out in the relevant Standards and taking into account relevant Guidelines referred to in regulation 45; and

(c) Maintain the currency and adequacy of the Environmental Management and Monitoring Plan during the term of its exploitation contract in accordance the relevant Standards with <u>Best Available Scientific Evidence</u>, Best Available Techniques and Best Environmental Practices and taking account of the relevant Guidelines.

Explanation/ comments

- I note that one delegation suggested in paragraph (a) to include the relevant organ to which annual reports are to be made within the context of Regulation 38 (2), I suggest that this matter be discussed during the negotiations of this Regulation in the plenary.
- I noted that there was a proposal by one delegation to compare baseline and monitoring data, to determine the actual effects. In this regard, I suggested slightly modify this proposal to use the word document, because determination of cause -effect relationship requires robust statistical analysis including to determine potential effects of climate change. Furthermore, issues related to climate change could be best addressed at the level of guidelines.

Regulation 52

Review of the performance assessments of the Environmental Management and Monitoring Plan

1. <u>A Contractor shall conduct performance assessments of the Environmental</u> <u>Management and Monitoring Plan.</u> The <u>Authority_Commission</u> shall review the performance assessments of the Environmental Management and Monitoring Plan undertaken by <u>the Contract a competent and independent auditor hired by a</u> <u>Contractor</u> in accordance with the relevant Standards and <u>taking account of the</u> <u>relevant</u> Guidelines to assess:

(a) The compliance of the mining operation with the plan;

(b) The continued appropriateness and adequacy of the plan, including the management conditions and actions attaching thereto; and

(c) The conformity of the plan with the <u>relevant_applicable_Regional</u> Environmental Management Plan, <u>if any</u>.

2. The frequency of a performance assessment shall be in accordance with the period specified in the approved Environmental Management and Monitoring Plan and shall occur at least <u>annually [every [twenty-four months] [thirty-six months] years]</u>;

2bis. An ad hoc performance assessment may be requested by the Council following:

- (a) An Incident or Notifiable Event;
- (b) Receipt of an unsatisfactory annual report; or
- (c) Issuance of a compliance notice.

3. A Contractor shall compile and submit a performance assessment report to the Secretary-General in accordance with, and in the format set out in, the relevant Guidelines. The report shall describe the assessment process undertaken by the Contractor, including who conducted it and which independent experts were engaged.

4. The Commission shall review a performance assessment report at its next available meeting, provided that the report has been circulated at least 30 Days in advance of such meeting. The Secretary-General shall make public the report and the findings and recommendations resulting from the Commission's review.

5. Where the Commission considers the performance assessment undertaken by the Contractor to be unsatisfactory or the report submitted to be inadequate, taking account of the <u>relevant</u> Guidelines and the Environmental Management and Monitoring Plan, the Commission may require the Contractor to:

[(a) Repeat the whole or relevant parts of the performance assessment, and revise and resubmit the report;]

(b) Submit any relevant supporting documentation or information requested by the Commission <u>including a revised report</u>; or

[(c) Appoint, at the cost of the Contractor, an independent competent person to conduct the whole or part of the performance assessment and to compile a report for submission to the Secretary-General and review by the Commission].

6. Where a Contractor has previously submitted two successive unsatisfactory <u>performance assessments reports and or</u> the Commission has reasonable grounds to believe that a performance assessment cannot be undertaken satisfactorily by a Contractor in accordance with the Guidelines, the Commission may procure, at the cost of the Contractor, an independent competent person to conduct the performance assessment and to compile the report.

7. [Where, as a result of paragraphs 5 and 6 above, a revised assessment and report is produced, paragraph 4 above shall apply to the revised assessment.

8. Where, as the result of a review by the Commission under paragraph 4 above, the Commission concludes that a Contractor has failed to comply with the terms and conditions of its Environmental Management and Monitoring Plan or that the plan is determined to be inadequate in any material respect, the Secretary-General shall:

(a) Issue a compliance notice under regulation 103 or;

(b) Require the Contractor to deliver a revised Environmental Management and Monitoring Plan, taking into account the findings and recommendations of the Commission. A revised plan shall be subject to the process under regulation 11.

9. The Commission shall report annually to the Council on such performance assessments and any action taken pursuant to paragraphs 5 to 8 by it or the Secretary-General. Such report shall include any relevant recommendations for the Council's consideration. Such report shall be published on the Authority's website.

10. The Secretary-General shall effectively manage the information from a performance assessment of the Environmental Management and Monitoring Plan.

<u>11. The Secretary-General shall inform the sponsoring State or States of any action taken pursuant to this regulation.</u>

Explanation / comment

- While there were further proposals to include additional criteria on the conduct of performance assessments, I draw the attention of delegations to Regulation 48, which already refers to BASE, BAT and BEP.
- With respect to the periodicity of reporting, I took into account one proposal which suggested to change annually to a longer time frame within which to submit the results of the performance assessment, this is consistent with my comment made in the first facilitator's text which requested for further consideration to be

given to the overall reporting burden of the contractor and also for the LTC to conduct reviews of such reports.

- I noted that there was a suggestion to include Stakeholder consultations in the review of the reports from the EMMP process, I have deleted this reference, bearing in mind that the LTC has the task to review the EMMPs. Hence, the LTC would guide the processes for Stakeholder consultations in this regard. The role of the LTC should also be seen in the context of article 165 of the Convention.
- There were proposals to include that the Commission resorts to external experts in the event that it does not have the required expertise, this is already reflected under Article 165(2) (e) of the Convention. Furthermore, there were a number of suggestions by one delegation to include monitoring data in this context. My perspective is that this is adequately addressed in Regulation 48 and elsewhere. Therefore, I suggest to keep the Regulations focused on the conduct of assessments on the EMMP alone.
- With respect to paragraph 10, I have modified this proposed inclusion to limit it to the scope of work which can be considerably undertaken by the Authority.

Regulation 53

Emergency Response and Contingency Plan

1. A Contractor shall maintain:

(a) The currency and adequacy of its Emergency Response and Contingency Plans based on the identification of potential Incidents and in accordance with Good Industry Practice, Best Available Techniques, Best Environmental Practices and the applicable Standards and Guidelines and shall be tested at least annually; and

(b) Such resources, training and procedures as are necessary for the prompt execution and implementation of the Emergency Response and Contingency Plans and any Emergency Orders issued by the Authority including on-vessel presence at all times of personnel authorised and trained to implement the Plan.

2. Contractors, the Authority_and sponsoring States shall-<u>facilitate_consult</u> together, as well as with other States and organizations which appear to have an interest, in relation to the exchange of knowledge, information and experience relating to Incidents, using such knowledge and information to prepare and revise standards and operating guidelines to <u>prevent</u>, reduce and control pollution and other hazards to the Marine Environment, including the coastline, throughout the mining life cycle control hazards and shall cooperate with and draw on the advice of other relevant international organizations.

3. Following an Incident, a Contractor must submit a detailed report on how whether the plan was adequate and to what extent it was complied with, including, among other aspects, expenses incurred, responsibilities and updating of the plan if necessary.

Explanation / comment

- I Note that there was one comment to clarify the reference to 'shall be tested annually', in this respect, I draw attention of delegations to the draft Standards and Guidelines on the ERCP which provides some clarity to the context of this phrase. In addition, one delegation proposed to discuss the proper place for this provision in the DRs. I agree with that comment that the discussion of the placement of this regulation should take place during the meeting.
- I also tried to incorporate proposals and insert wording to make this provision in line with Article 145 of the Convention.

Section 5 Environmental Compensation Fund

Regulation 54 Establishment of an Environmental Compensation Fund

1. The Authority hereby establishes the Environmental Compensation Fund ("the Fund").

2. The rules and procedures of the Fund shall be established by the Council on the recommendation of the Finance Committee before the commencement of commercial activities [before the commencement of Commercial Production] [prior to the grant of an exploitation contract under these regulations] [before the approval of a first plan of work for exploitation].

3. The Secretary-General shall, within 90 Days of the end of a Calendar Year, prepare an audited statement of the income and expenditure of the Fund for circulation to the members of the Authority.

Explanation / comment

- I have noted that several delegates have reserved their comments and position on this provision until further discussions have taken place.
- I note that there was a proposal to add additional elements to Regulation 54(1), including references to the minimum content to be provided in the rules and procedures of the Fund. Several questions have been raised concerning the modalities of operation of the Fund and is a matter of ongoing discussion. I invite for discussion on modalities and operation of the Fund.
- Several different views have been provided on the timeline. The suggestions have been inserted in square brackets and I invite for further discussion.

Regulation 55 Purpose of the Environmental Compensation Fund

The purpose of the Fund is the funding of or compensation for the implementation of any necessary measures designed to prevent, limit or remediate[designed to prevent, reduce and control and if appropriate and feasible, limit and remedy] any damage to the Area arising from activities in the Area and the restoration and rehabilitation of the Area when technically and economically

feasible and [supported by] [in accordance with Good Industry Practice, Best Environmental Practices and Best Available Techniques when] the costs of [such measures and efforts] —which cannot be recovered from a Contractor or sSponsoring State, as the case may be.

Explanation / comment

- Several divergent views have been presented in relation to this Regulation, especially in relation to the use of the fund. Conceptional discussions needs to take place before a route is chosen in relation to the wording of this provision. Therefore, I have refrained myself from inserted these views in the text and only limited it too few specific items and general clarifications.
- The insertion in square brackets in relation to required actions are suggested to accommodate for the content of article 145 of LOSC.
- It has been suggested to change "supported by" to "in accordance with" to make it an obligation. Furthermore, it has been suggested to extent the reference from not just Best Available Scientific Evidence but also to e.g. Best Environmental Practices.

Regulation 56 Funding of the Environmental Compensation Fund

The Fund [shall adhere to the polluter-pays principle and] will consist of, but not be limited to, the following monies:

(a) The prescribed percentage or amount of fees paid [by Contractors] to the Authority;

(b) The prescribed percentage of any penalties paid [by Contractors] to the Authority;

(c) The prescribed percentage of any amounts recovered by the Authority by negotiation or as a result of legal proceedings in respect of a violation of the terms of an exploitation contract;

(d) Any monies paid into the Fund at the direction of the Council, based on recommendations of the Finance Committee; and

(e) Any income received by the Fund from the investment of monies belonging to the fund.

Explanation / comment

- It has been suggested to insert a direct reference to the polluterpays principle in order to stress the overall aim of the fund. I invite for discussions on this insertion.
- A general comment has been placed in relation to a concern as to the availability of resources when the fund will become operational. I invite for further discussions on that comment.

Part VI

Closure plans

Regulation 59 Closure Plan

1. A Closure Plan shall set out the responsibilities and actions of a Contractor for the decommissioning and closure of activities in a Mining Area, including the post-closure management and monitoring of residual Environmental Effects. Closure also includes a temporary suspension of mining activities.

2. The objectives of a Closure Plan are to ensure that:

(a) The closure of mining activities is a process that is incorporated into the mining life cycle, <u>including by scheduling studies to inform Closure</u> <u>throughout the period of Exploitation</u> and is conducted in accordance with Good Industry Practice, Best Environmental Practices, Best Available Techniques and Best Available Scientific Evidence;

(b) At the date of cessation or suspension of mining activities, a management and monitoring plan is in place for the period prescribed in a Closure Plan and in accordance with the relevant Standards and taking into account the relevant guidelines;

(c) The risks relating to Environmental Effects are quantified, assessed and managed, which includes the gathering of information relevant to closure or suspension;

(d) The necessary health and safety requirements are complied with; Any health and safety requirements related to closure activities;

(e) Any residual Environmental Effects <u>continue to be monitored</u>, <u>identified</u>, <u>quantified</u> and <u>reported to the Authority</u> are identified and <u>quantified</u>, and management responses are implemented, including plans for further Mitigation, or remediation where appropriate;

(f) Any <u>necessary</u> restoration or rehabilitation commitments will be fulfilled in accordance with predetermined criteria or standards by the Contractor;

(f)bis Requirements regarding the removal of <u>all_any</u> Installations and <u>its</u> <u>parts and</u> equipment from the Mining Area are addressed; and

(g) The mining activities are closed or suspended efficiently and cost effectively <u>safely</u>.

3. The Closure Plan shall cover the aspects prescribed by the Authority in annex VIII to these regulations and in accordance with the relevant Standards and taking into account the relevant guidelines.

4. A Contractor shall maintain the currency and adequacy of its Closure Plan in accordance with Good Industry Practice, Best Environmental Practices, Best Available Techniques, Best Available Scientific Evidence and the relevant <u>Standards and, taking account of the relevant</u> Guidelines.

5. The Closure Plan shall be reviewed_annually and updated each time there is a Material Change in a Plan of Work, or, in cases where no such change has occurred, every five years and be finalized in accordance with regulation 60 (1).

Explanation / comment

- I noted the obligation to prepare a closure plan is reflected in Regulation 7 (3) hence the original formulation of paragraph 1 has been retained. I have reworded this provision bearing in mind that an applicant would be required to submit a closure plan with a proposed plan of work for exploitation.
- While there were proposals to delete the reference to any residual effects, this provision needs to be consistent with the language in Regulation 26 on the Environmental Performance Guarantee
- I noted that one delegation suggested the inclusion of waste disposal in paragraph fbis. I removed this reference as waste is covered by -section 3 of the draft regulations (pollution control and management of waste).
- I note that some delegations did not agree for annual review of the closure plan, accordingly, I amended paragraph 5. Nevertheless, I wish to invite delegations to discuss this point during the meetings.

Regulation 60 Final Closure Plan: cessation of production

1. A Contractor shall, at least 24 months prior to the planned end of Commercial Production, or as soon as is reasonably practicable in the case of any unexpected cessation, submit to the Secretary-General, for the consideration of the Commission, a final Closure Plan, if such cessation requires a Material Change to the Closure Plan, determined in accordance with the procedures established in Regulation 57, taking into account the results of monitoring and data and information gathered during the exploitation phase and the applicable Regional Environmental Management Plan if any.

2. The Commission shall examine the final Closure Plan at its next meeting, provided that it has these have been circulated at least 60 Days in advance of the meeting, bearing in mind article 165, paragraph 2(e), of the Convention.

3. If the Commission determines that the final Closure Plan meets the requirements of regulation 59, it shall recommend approval of the final Closure Plan to the Council.

4. If the Commission determines that the final Closure Plan does not meet the requirements of regulation 59, the Commission shall require the Contractor to make amendments to the final Closure Plan as a condition for approval of the plan.

5. The Commission shall give the Contractor written notice of its decision under paragraph 4 above and provide the Contractor with the opportunity to make representations or to submit a revised final Closure Plan for the Commission's consideration, within 90 Days of the date of notification to the Contractor.

6. At its next available meeting, the Commission shall consider any such representations made or revised final Closure Plan submitted by the Contractor when preparing its report and recommendation to the Council, provided that the representations have been circulated at least 30 Days in advance of that meeting.

7. The Commission and Finance Committee shall review the amount of the Environmental Performance Guarantee provided under regulation 26 and include the results of that review and any relevant recommendations in its report to the Council on the final Closure Plan.

8. The Council shall consider the report and recommendation of the Commission relating to the approval of the final Closure Plan.

Explanation / comment

- I note that there was a suggestion to delete the reference to Article 165 (2) (e) and I have reflected this text.
- Regarding para 7, it has been proposed to insert a reference to the Finance Committee.
- There was a proposal to put recommendations and reports from the Contractor be published on the Authority's website, I deleted this reference because the reports and decisions of the Council are already published by the Authority on its website as a matter of standard procedure.
- I noted that there were suggestions to insert regulation on Stakeholder consultation with specific procedures and deadlines. The suggested regulation is descriptive and should be referred to the Standard and Guidelines.

Regulation 61 Post-closure monitoring

1. A Contractor shall implement the final Closure Plan in accordance with the conditions of its implementation and shall report to the Secretary-General on the progress of such implementation on an annual basis, including the results of monitoring under paragraph 2 below, as set out in the final Closure Plan.

2. The Contractor shall continue to monitor the Marine Environment for such period after the cessation of activities, as set out in the final Closure Plan and for the duration provided for in the relevant <u>Standards and taking into account relevant Guidelines and release monitoring data publicly and in an accessible format at monthly intervals</u>.

3. Upon completion of implementation of the final Closure Plan, Tthe Contractor shall <u>hire a competent and independent auditor to</u> conduct a final performance assessment and submit a final performance assessment report in accordance with the Guidelines to the Secretary-General to ensure that the closure objectives as described in the final Closure Plan have been met. Such report shall be reviewed by the Commission at its next meeting, provided that it has been circulated at least 30 Days in advance of the meeting.

Explanation / comment

• I noted that some delegations suggested to include in paragraph 2, a reference to the Environmental performance guarantee which is sufficiently addressed under draft regulation 26 in which case, I have amended the provision accordingly.

[Annex (III bis)

Scoping Report]

Explanation / comment

- It has been suggested to insert an annex regulating the scoping report.
- I invite for a general discussion on this annex and what the legal framework for this scoping report is. After such discussions the actual content can be considered.

[A Scoping Report should be submitted to the Authority in accordance with the relevant Standard and Guidelines, and should include:

(a) <u>A brief description of the proposed Exploitation activities and any</u> <u>ancillary features, including what is known or anticipated about where the mining</u> <u>will occur within a Contract Area and the mining machinery to be used.</u>

(b) <u>A description of what is known about the environmental setting for the project (Contract Area and regional setting)</u>,

(c) <u>Summary of existing environmental baseline studies, including a</u> <u>description of methodology for collecting and analyzing the baseline data,</u>

(d) Description of the technical, spatial and temporal boundaries for the \underline{EIA} ,

(e) A list of any assumptions relied upon and identification and quantification of the uncertainties at this stage of the EIA, how they are being addressed, and assessment of their implications to the environmental risk assessment findings

(f) <u>A preliminary impact analysis which ranks the importance of issues</u> for the EIA and evaluates the need for further information, taking into account the environmental risk assessment.

(g) An environmental risk assessment, which includes:

(i) the environmental consequence for each identified potential impact (the magnitude of the impact and the receptor characteristics),

(ii) the likelihood of the consequence occurring;

(iii) the confidence levels of experts, in order to account for uncertainty and a precautionary approach;

(h) <u>A description of the methodology employed in the environmental risk</u> <u>assessment</u>

(i) <u>A description of the results of the environmental risk assessment,</u> including identification of high priority risks

requiring particular focus in the subsequent impact assessment phase of the EIA;

(j) <u>A preliminary Stakeholder list that proactively identifies likely</u> <u>Stakeholders, and an indicative schedule and methodology for engagement with</u> <u>key Stakeholders throughout the EIA process;</u> (k) <u>A report of consultations undertaken during scoping;</u>

(1) Consideration of feasible alternative means of carrying out the project that will be examined in detail in the EIA, and any others that have been discounted at this stage, and the reasons for that selection;

(m) <u>A draft Terms of Reference for the EIA, which identifies the activities</u> and studies planned for the EIA, and any additional baseline data that will be required;

(n) Explanation for how the activities and studies planned for the EIA will be sufficient to determine likely environmental impacts, and to propose Mitigation and management strategies and monitoring methodology;

(o) <u>A note describing and explaining any divergence from relevant ISA</u> <u>Guidelines.]</u>

Annex IV

Environmental Impact Statement

Explanation / comment

- Overall, I have included the comments from delegations and observers that are in consistency with Annexes IV and VI. I have attempted to insert the comments which in my view did not encounter any opposition at the meeting in March 2022.
- Several suggestions contained repetition and rephrasing of other parts of Annex IV. If the original wording provided the same information, or where it is repetition of information already provided, I have chosen not to insert the suggestions.
- In relation to more specific comments:
- As for sections 1 and 2 of Annex IV, I have tried to make it consistent with the approach in other parts of the revised facilitator's text. Furthermore, in relation to these sections, discussions will still need to continue regarding the mandatory or recommendatory nature of the template.
- In addition, references have been made to toxic elements. I invite for further clarification on this point.
- I have deleted comments where, to my understanding, it would be more practically dealt with in national jurisdiction.
- Some proposals mentioned recovery rate of the ecosystem of the environment. This was not included as the assessment of anticipated impacts intrinsically takes into account such recovery rates.
- I decided to keep the reference to Mitigation since it is a defined term in the schedule of the draft regulations, and it would also be consistent with regulation 47 which refers to Mitigation.

1. Preparation of an Environmental Impact Statement

The Environmental Impact Statement prepared under these regulations and the present annex shall:

(a) Be prepared in plain language and in an official language of the Authority together with an official English-language version, where applicable;

(b) Provide information, in accordance with the relevant regulations, Standards and Guidelines and taking into account the relevant applicable regional environmental management plan, corresponding to the scale and potential magnitude of the activities, to assess the likely Environmental Effects of the proposed activities. Such effects shall be discussed in proportion to their significance. Where an applicant or Contractor considers an Environmental Effect to be of no significance, there should be sufficient information to substantiate such conclusion, or a brief discussion as to why further research is not warranted; and

(c) Include a non-technical summary of the main conclusions and information provided to facilitate understanding of the nature of the activity by Stakeholders.

2. Template for Environmental Impact Statement

The recommended format for an Environmental Impact Statement is outlined below. It is intended to provide the International Seabed Authority, its member States and other stakeholders with unambiguous documentation of the potential Environmental Effects <u>-based on the Best Available Scientific Evidence</u> and Best Available <u>Technology</u> <u>Techniques</u> on which the Authority can base its assessment, and any subsequent approval that may be granted. Further detail for each section is provided following the overview.

-Th<u>ise</u> document is a template only, and is not intended to be prescriptive but rather to guide the format and general content of an Environmental Impact Statement and It does not provide details of methodology or thresholds that may be resource- and site-specific. These methodologies and thresholds <u>should</u> be developed as Standards and Guidelines to support the regulations.

Contents

		Page
	Executive summary	76
1.	Introduction	76
2.	Policy, legal and administrative context	77
3.	Description of the proposed developmentproject	77
4.	Description of the existing physicochemical oceanographic environment	80
5.	Description of the existing biological environment	81
6.	Description of the existing socioeconomic environment	82
7.	Assessment of impacts on the physicochemical environment and proposed Mitigation	83
8.	Assessment of impacts on the biological environment and proposed Mitigation	86
9.	Assessment of impacts on the socioeconomic environment and proposed Mitigation	87
10.	Accidental events and natural hazards	89
11.	Environmental management, monitoring and reporting	89
12.	Product stewardship	90
13.	Consultation	91
14.	Glossary and abbreviations	91
15.	Study team	91
16.	References	91
17.	Appendices	91

Executive summary

One of the main objectives of the executive summary is to provide an overview of the project and a summary of the content of the Environmental Impact Statement for non-technical readers. Information provided in the executive summary should include:

(a) A description of the proposed <u>development project</u>, and its objectives and a description of alternatives analyzed;

(b) Economic, financial and other benefits to be derived from the project;

(c) Anticipated impacts of the activity <u>[including but not limited to]</u> (physicochemical, <u>oceanographic</u>, <u>geological</u>, <u>biological</u>, socioeconomic), <u>including cumulative impacts</u>;

(d) Mitigation measures to minimize environmental impacts and a description of any residual impacts;

(e) Linkages with the Authority's global environmental policy and strategy and the applicable regional environmental management plan and the development of the Environmental Monitoring and Management Plan; and

(f) Consultation undertaken with other parties and Stakeholders.

1. Introduction

1.1 Background

Summarize briefly the project being proposed, including all main activities and locations.

1.2 Project viability

Provide information on the viability of the proposed development, its economic context and why the project is needed, and include a description of the benefits to mankind.

1.3 Project history

Summarize briefly the work undertaken up to the date the Environmental Impact Statement was finalized and ready to be submitted to the International Seabed Authority. This should include a brief description of the resource discovery, the exploration undertaken and any component testing conducted to date. For the component testing, provide a brief description of activities here. If applicable, include any report(s) related to component testing including any monitoring and assessment of the environmental impacts in an appendix.

1.4 **Project proponent**

Summarize the credentials of the proponent, including major shareholders, other contracts or licences held (including in other jurisdictions), previous and existing contracts with the Authority and the proponent's environmental record, etc. The proponent's technological and environmental expertise, capacity and financial resources should be outlined.

1.5 This report

1.5.1 Scope

Provide detail as to what is and is not included, based on earlier assessments or work and which risks have been prioritised and which received less emphasis, in this Environmental Impact Statement, based on the Scoping Report and previous feedback from the Authority and Stakeholders. Link to other supporting information. A key item that should be included is a previous risk assessment that evaluates activities classified as low risk (and therefore should receive less emphasis), compared with high-risk activities, which should be the focus of this Environmental Impact Statement.

1.5.2 Report structure

Where the Environmental Impact Statement spans multiple volumes, this section should provide additional details not listed in the table of contents.

2. Policy, legal and administrative context

Provide information on the relevant policies, legislation, agreements, standards and guidelines that are applicable to the proposed mining operation.

2.1 Applicable mining and environmental legislation, policy, and instrumentsrules, -regulations and procedures of the Authority

Outline the national and international legislation and policy adopted in accordance with article 209 of the Convention, regulations, Standards or guidelines as well as the Regional Environmental Management Plan of the <u>Authority, if any</u> that apply to the management or regulation of Exploitation in the Area, including how the proposed operation will implement them.

2.2 Other applicable <u>national</u> legislation, policies and regulations

Outline any other legislation, policies or regulations that do not necessarily apply specifically to seabed mining or the environment, but may be relevant to the proposal (e.g., shipping regulations, maritime declarations, [marine scientific research, climate change policies, Sustainable Development Goals). This section should also refer to national regulations and laws that relate to the effects of Exploitation activities on coastal States, or other places where components of Exploitation (e.g., processing) could occur] and how the mining activity will comply with them.

2.3 Applicable international and regional agreements

In addition to the United Nations Convention on the Law of the Sea and the 1994 Agreement relating to the Implementation of Part XI of the Convention, list the international agreements applicable to the operation, (whether directly or via incorporation into domestic laws cited in section 2.2 above), such as the International Maritime Organization suite of environmental and safety-related conventions, applicable environmental and biodiversity conventions, and applicable regional agreements. which includes the International Convention for the Safety of Life at Sea (SOLAS), the International Convention for the Prevention of Pollution from Ships (MARPOL) and the Convention on the Prevention) and the 1996 Protocol thereof; the Convention on Biological Diversity and the Convention on Migratory Species of Wild Animals; and applicable regional agreements and describe how the proposed operation will comply with them.

2.4 Other applicable standards, principles and guidelines

Discuss applicable standards and guidelines that will be adhered to or aligned with throughout the operation, such as the <u>Standards and Guidelines</u> <u>instruments</u> of the International Seabed Authority <u>not already included in section</u> <u>2.1</u>, the Equator Principles, the Environmental Management Standards of the International Organization for Standardization, the Code for Environmental Management of Marine Mining of the International Marine Minerals Society, the Performance Standards on Environmental and Social Sustainability of the International Finance Corporation and the <u>Ss</u>tandards of the Extractive Industries Transparency Initiative.

2.5 National Processes

Describe any national processes followed and permits received from the sponsoring State in relation to the environmental impact assessment.

3. Description of the proposed development project

Provide details of the proposed <u>development activity_project</u>, including relevant diagrams and drawings. It is understood that most projects will likely involve the recovery of minerals from the Area, with the concentrating process(es) occurring on land within a national jurisdiction (outside the jurisdiction of the Authority). While it is expected that this section would provide a brief description of the entire project, including offshore and land-based components, the Environmental Impact Statement should focus on those activities occurring within the Authority's jurisdiction (e.g., activities related to the recovery of the minerals from the Area up to the point of trans-shipment).

Details to be provided under this section should include the headings listed below.

3.1 Project area definition

3.1.1 Location

Include coordinates of the project area, detailed location maps (drawn to scale), a layout of the site and showing the relevant sites proposed as Contract Area and Mining Area and any other features that can be usefully marked upon the map at the time of application, including the locations of impact reference zones and preservation reference zones.

3.1.2 Associated activities

Describe the supporting activities and infrastructure required (e.g., transportation corridors, ports for disembarkation of vessels, ports for unloading of ore that are outside the direct mining site.

3.2 Mineral resource

Provide details of the type of resource proposed for extraction (e.g. sea floor massive sulphides, polymetallic nodules, ferromanganese crusts), the type of commodity and its grade and volume. Estimates of the inferred and indicated resource and probable reserves should be provided on the basis of the international CRIRSCO reporting template or national accepted codes (NI 43-

101, JORC Code) and the official ISA mineral classification (PMN, PMS and CFC).

3.3 **Project components**

Provide background information on the proposal and the technologies and equipment to be employed, and include the subsections set out below.

3.3.1 Project scale

Provide an overview of the spatial (horizontal and vertical) and temporal (seasonal and annual) scales of the mining operation, including volumes, depth and physical and chemical properties of material to be recovered, dewateredprocessed and deposited or discharged into the water column or back to the seabed, and the target depth range for any such discharge. This should include an account of the area to be physically mined, as well as the likely extent of any secondary impacts (e.g., sediment plumes, noise, light), which will be discussed in greater detail later.

3.3.2 Mining Equipment

Provide details 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 <u>the specific technologies</u> <u>developed to reduce the direct impact of mining activities (e.g. noise, light, plumes)</u> and other details of the mining activities. <u>Describe the energy requirements of the requisite machinery</u>.

3.3.3 Transport/materials handling

Provide a description of all methods to be used to transport the mineralbearing 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. <u>Describe the energy requirements of the requisite machinery</u>.

3.3.4 On-site processing

Provide a description of the processing of the mineralized material that will occur within or above the Area, including shipboard processing. Include a description of any methods to be used on the sea floor to separate the mineralized material from surrounding sediment and/or rock, as well as any dewatering of the mineralized material at the surface. This section should also cover any disposal of seawater/fines.

Include a description of the disposal and discharge of sediment, wastes or other effluents into the Marine Environment and the disposal of waste from general ship operations. 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. <u>Describe the energy requirements of</u> <u>the requisite machinery</u>.

3.3.5 Support equipment

Describe any equipment expected for mining and support operations (e.g., mining vessels/platforms, supply vessels, barges). Describe the anticipated frequency of vessel movements for these activities. Describe the energy requirements of the requisite machinery.

3.4 Commissioning

Describe the pre-production activities that will take place with regard to the establishment and set-up of the site for mining operations. The management of this process (such as the establishment of safety zones around vessels) should also be described.

3.5 Construction and operating standards

Outline the design codes or certification standards to which the equipment will be or has been built, as well as the operating standards that will be applied to mining operations. This section should include subsections such as those set out below.

3.5.1 Design codes

3.5.2 Health and safety

3.5.3 Workforce description

This section should also outline capacity-building objectives and commitments.

3.6 Decommissioning and closure

Describe the steps that will occur when the mining operation is completed, including the decommissioning of offshore infrastructure, under a Closure Plan.

3.7 Other alternatives considered

Provide an account of alternative options that were considered <u>if any, that</u> were considered and rejected in favour of the current proposal with justification as to why the alternatives were rejected. Aspects should include the selection of the mine site, mine production scenarios, <u>equipment design and engineering</u> <u>decisions</u>, transport and materials handling and shipboard processing.

3.8 Development timetable (detailed schedule)

Provide a description of the overall timetable, from the implementation of the mining programme to the decommissioning and closure of operations. The description should include the major phases of the operation as well as the milestone dates on which relevant tasks are expected to be completed. Information on the development timetable provided under this section should clearly communicate the different phases in the development proposal. For reasons of clarity, a flow chart or a Gantt or PERT (Programme Evaluation and Review Technique) chart should be used where appropriate. Information provided in this section should include the following:

(a) The funding arrangement for the proposed activity, or whether the availability of funds is subject to this or other approvals being granted;

(b) Pre-construction activities including the development and testing of mining equipment, operations and systems in situ (if applicable);

- (c) A construction schedule and staging timetable;
- (d) An infrastructure development schedule;
- (e) A monitoring schedule (during and after operations); and
- (f) A closure schedule.

4. Description of the existing physicochemical oceanographic environment

Give a detailed account of knowledge of the environmental (physical, chemical, geological, oceanographic) conditions at the mine siteimpact area, which should include information from a thorough literature review as well as from on-site studies. The Guidelines on baseline data collection shall guide the drafting of this section by providing information on the minimum amount of detail required for an acceptable baseline description. The account will provide the baseline description of the physical, chemical, geological and oceanographic conditions against which impacts will be measured and assessed. The detail in this section is expected to be based on a prior environmental risk assessment that will have identified the main impacts, and thus the elements that need to be emphasized in the environmental impact assessment.

4.1 Key messages

Provide an overview of key content (this information can be provided in a box that contains up to 6 bullet points on either the main aspects covered or the main findings).

4.2 Regional overview

Describe the general <u>baseline</u> environmental conditions of the site <u>and</u> <u>impact area</u>, including <u>but not limited to</u> the <u>physical</u>, <u>chemical</u> geological and oceanographic setting within a broader regional context and <u>refer_in accordance</u> <u>with</u> to the applicable Regional Environmental Management Plan<u>if any</u>. This should be brief section that includes a map. A more detailed site-specific <u>and</u> <u>impact area</u> description will be provided in accordance with the sections below.

4.3 Studies completed

Describe any prior research/Exploration (including methods used for completing the studies based on Best Available Techniques) that could provide relevant information for this Environmental Impact Statement and future activities. These should be detailed in the appendices, and the environmental reference baseline data collected for the Authority, as outlined in the exploration contract conditions, should accompany the Environmental Impact Statement.

4.4 Meteorology and air quality

Provide a general overview of <u>meteorologyelimatology</u> (e.g., wind directions and speeds, seasonal patterns). This section may be most relevant to surface operations.

4.5 Geological properties and habitat classification setting

Describe the nature and extent of the mineral resource and bedrock within a broader geological context. Describe the geological petrographic and geomorphological setting of the site, including high-resolution bathymetric maps and sedimentation rates, and refer to submarine features such as hydrothermal vents, seeps and seamounts. <u>Provide a baseline description of seabed substrate</u> composition characteristics (to benthic subsurface layers), including specific gravity, bulk density, grain size, dissolved and particulate organic and inorganic carbon, nutrients, carbonate, physical and chemical composition of pore-water, redox regimes, and spatial (horizontal and vertical) and temporal (seasonal and interannual) variability in these characteristics. Substrate composition shall be described to a depth below the seafloor prescribed in the relevant Standard or <u>Regional Environmental Management Plan.</u>

4.6 Physical oceanographic setting

Provide a description of oceanographic aspects such as <u>thermohaline</u> <u>conditions</u>, <u>optical properties and turbidity</u>, <u>currents regime</u>, <u>tides</u>, <u>waves</u>, <u>turbulence</u>, <u>and oceanographic fronts and eddies</u>. Seasonal variability is an important element. Detail is required on the regional setting, as well as the specific site, and should include changes in physical conditions and processes according to depth and horizontal distance from the proposed mine site (near-field, far-field).

4.7 Chemical oceanographic setting

Provide a description of water mass characteristics at the site and above the site at various depths of the water column, including the structure and development of the oxygen minimum zone in particular near the sea floor (up to 200m above bottom), that includes nutrients, particle loads, temperature and dissolved gas profiles, vent-fluid characteristics if applicable, turbidity, etc.

Provide a description of chemical oceanographic properties at the site and above the site throughout the water column, that includes nutrients, particle loads, temperature, oxygen, salinity, density, particulate and dissolved organic matter, pH, chemical composition, including concentrations of trace metals, dissolved gas profiles, depth range and characteristics of oxygen minimum zone, redox regimes, carbonate saturation, and spatial (horizontal and vertical) and temporal (seasonal and interannual) variability of these properties, and vent-fluid characteristics if applicable. Provide projections of how and where these aspects are likely to change over the next 50 years (or time period relevant to the contract term and subsequent Closure period.)

4.8 Seabed substrate characteristics

Provide a description of seabed substrate composition, including physical and chemical properties (e.g., sediment composition, pore-water profiles, grain size, sediment mechanics, dissolved and particulate organic and inorganic carbon, nutrients, carbonate, redox regimes, and spatial (horizontal and vertical) and temporal (seasonal and interannual) variability in these characteristics).

4.9 Natural hazards

Provide a description of <u>and trend analysis of variation related to</u> applicable potential natural hazards for the site, including volcanism, seismic activity, cyclone/hurricane trends, tsunamis, etc.

4.10 Noise and light

Provide a description of ambient noise and light, <u>including light intensity</u>, <u>backscatter</u>, and attenuation, and spatial (horizontal and vertical) and temporal (seasonal and interannual) variability in these characteristics, indicating pertinence to fauna where known, and the influence of existing <u>Exploitation</u>, Exploration and maritime activity.

4.11 Greenhouse gas emissions and climate change

Provide a description of the level of gas and <u>chemical_fluid</u> emissions from both natural and anthropogenic activities in the Area, as well as those affecting sea floor and water-column chemistry. <u>Effects of mining on ocean climate</u> <u>mitigation functions and services should be described (including any anticipated</u> <u>alteration of CO2 uptake and sequestration, or nutrient cycling).</u>

4.12 Summary of the existing physicochemical environment

Summarize key findings and include notes on special considerations for hydrothermal vents, seeps, <u>ridges</u>, seamounts and oceanographic fronts or eddies, <u>and other geological and oceanographic features described in this section</u>. It is anticipated that this summary will be up to one page and be more extensive than the key messages section.

5. Description of the existing biological environment

Give a detailed account of knowledge of the biological communities and ecosystem functions in the Impact Area, including information from a thorough literature review and baseline data collected, in accordance with the Regulations. The description of the site should be divided by depth regime (surface, midwater and benthic, where appropriate) or otherwise as indicated in the relevant Regional Environmental Management Plan and provide a description of the various biological components and communities that are present in or utilize the area. The detail in this section is expected to be based on a prior environmental risk assessment that will have identified the main impacts, and thus the elements that need to be emphasized in the environmental impact assessment.

5.1 Key messages

Provide an overview of the key content (this information can be provided in a box that contains up to 6 bullet points on either the main aspects covered or the main findings).

5.2 Regional overview

Provide general regional context, and include site-specific issues and characteristics, <u>existing</u> Regional Environmental Management Plan<u>if any</u>, <u>existing</u> areas of particular environmental interest, <u>ecologically or biologically</u> <u>significant marine areas</u> and national areas of adjacent countries, if any. References to relevant technical data and previous studies should also be included. This section should be brief, but provide broader context for the more detailed site-specific description below.

5.2 Alt Describe the general baseline biological environmental conditions of the site and Impact Area, within a broader regional context and in accordance with the applicable Regional Environmental Management Plan.

5.3 Studies completed

Describe any prior research/Exploration (including methods used for completing the studies based on Best Available Techniques) that could provide relevant information for this Environmental Impact Statement and future activity. These should be detailed in the appendices, and the environmental reference baseline data collected for the Authority, as outlined in the exploration contract conditions, should accompany the Environmental Impact Statement.

5.4 Biological environment

Address diversity, abundance, biomass, community-level analyses, connectivity, trophic relationships, resilience, ecosystem function <u>as well as spatial</u> 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, there

should be a description of the main taxonomic/ecological groups (e.g., plankton, fish, marine mammals, benthic invertebrates, demersal scavengers), using the Authority's Guidelines.

The description needs to detail fauna communities in the water column down to the Mining Area, including migratory and highly mobile species, their relationship to the natural habitat, including the mineral resource, and the functional ecological relationships across groups to assess the scale of impacts to be expected if mining occurs.

5.4.1 Surface

Describe the biological <u>environment_communities</u> from the surface to a depth of 200 metres, including <u>microbes</u> plankton (phytoplankton and zooplankton), surface/near-surface fish such as tuna, and seabirds, <u>marine turtles</u> and marine mammals. The description should also evaluate the temporal and spatial variability in distribution and composition.

5.4.2 Midwater

Describe the pelagic fauna and their habitat in the open water from a depth of 200 metres down to 50 metres above the sea floor, and include zooplankton, nekton, mesopelagic and bathypelagic fishes and deep-diving mammals. The description should also evaluate the temporal and spatial variability in distribution and composition.

5.4.3 Benthic

Describe the benthic <u>microbial</u> invertebrate and fish communities, including infauna, <u>epifauna</u> and demersal fish, up to an altitude of 50 metres above the sea floor. This should include considerations of species richness, biodiversity, faunal densities, community structures and connectivity, etc. <u>Ecosystem functions, such</u> <u>as</u> Bioturbation <u>etc.</u> should also be covered in this section. <u>The description should</u> <u>also evaluate the temporal and spatial variability in distribution and composition</u>.

5.4.4 Ecosystem/community-level description

Summarize existing community or <u>and</u> ecosystem studies that integrate elements of the above sections. The summary should consider <u>[trophic</u> relationships, ecosystem functioning, benthic-pelagic couplings,] early life-history stages, recruitment and behavioural information.

5.5 Summary of the existing biological environment

Summarize the key findings with respect to the biological environment, including regional distributions, special faunal characteristics, etc. It is envisaged that this summary will be up to one page in length.

6. Description of the existing socioeconomic <u>and</u> <u>sociocultural</u> environment

This section should describe the socioeconomic<u>and sociocultural</u> aspects of the project.

6.1 Key messages

Provide an overview of key content (this information can be provided in a box that contains up to 6 bullet points on either the main aspects covered or the main findings).

6.2 Existing uses

6.2.1 Fisheries

<u>Relevant fisheries shall be described here. This should include description</u> of areas of significance for fish stocks, such as spawning grounds, nursery areas or feeding sites. If the project area occurs within an area used by fisheries, then this needs to be described here. This should include description of areas of significance for fisk stocks, such as spawning grounds, nursery areas or feeding sites as well as ecologically or biologically significant marine areas.

6.2.2 Marine traffic

This section describes the non-project-related marine traffic occurring within the project area.

6.2.2bis Submarine cables

This section describes the non-project-related submarine cables occurring within the project area.

6.2.3 Tourism

Describe areas used by cruise liners and for game fishing, sightseeing, marine mammal watching and other relevant tourism activities.

6.2.4 Marine scientific research

Outline the current scientific research programmes taking place in the area.

6.2.5 Area-based management tools

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

6.2.5 [Sociocultural uses

List the sociocultural uses of the project area (e.g., traditional navigation routes, migratory paths of culturally significant marine species, sacred sites and waters associated with ritual or ceremonial activities of Indigenous Peoples and local communities)]

6.2.6 Other

List other uses of the project area that are not related to the above (e.g., other mineral exploration, exploitation projects,-[traditional navigation], marine genetic resources, global-scale regulating and supporting ecosystem services).

6.2bis Planned uses

Describe the planned uses of the area for which information is publicly available (e.g. fisheries, maritime traffic, tourism, marine scientific research, submarine cables, area-based management tools).

6.3 Sites of an archaeological-or, -historical nature or paleontological

List any sites of archaeological or historical significance<u>and</u> <u>paleontological nature</u> that are known to occur within the potential area of impact.

6.4 Summary of existing socioeconomic and sociocultural environment

Summarize key findings regarding the <u>socioeconomic and</u> sociocultural environment. It is envisaged that this section will be up to a page in length, and more extensive than the key messages.

7. Assessment of impacts on the physicochemical oceanographic environment and proposed Mitigation

Provide a detailed description and evaluation of potential impacts_and Environmental Effects of the operation to components of the physical chemical, geological and oceanographic environment identified in section 4. This may need to consider effects that could happen during the construction/development (pre-commissioning), operational and decommissioning phases, as well as the potential for accidental events._The preferred approach for this template is to include for each component a description of:

(a) The source (action, temporal and spatial duration) and nature of the disturbance;

(a)bis The nature and extent of any actual or potential impact, including cumulative impacts;

(a)ter The methods used to determine impacts (including the assumptions <u>and limitations</u> of any impact modelling undertaken);

(b) Measures that will be taken to avoid, remedy or mitigate such impacts; and

(c) The unavoidable (residual) impacts that will remain, including their expected longevity.

It is important that these sections make clear the expected longevity of unavoidable effects. The detail in this section is expected to be based on a prior environmental risk assessment that will have identified the main impacts, and thus the elements that need to be emphasized in the environmental impact assessment.

7.1 Key messages

Provide an overview of the key content covered in section 7.

7.2 Description of potential impact categories

Provide an overview and description of the categories of general-potential impacts caused by the proposed mining operation. This should introduce the major types of effectpotential impacts, such as habitat removal, the creation of sediment plumes, noise and light, etc. and be used in the subsequent descriptions and evaluations of potential environmental impacts and Environmental Effects from the proposed operation and alternatives considered to components of the physical, chemical, geologic, and oceanographic environment identified in section 4.

Key elements that need to be included are:

(a) Descriptions of impact studies carried out during exploration (e.g., component testing and the resulting observations from the associated monitoring);

(b) Descriptions of the results of any environmental risk assessments, which should be included as separate reports or appendices where appropriate; and

(c) Descriptions of the methods applied to describe and quantify impact categories and assessment.

7.3 Meteorology and air quality

Provide a description of potential <u>impacts and Environmental eE</u>ffects on air quality <u>and components of meteorology</u> –from the surface or subsurface operations.

- 7.3.1 Potential impacts and Environmental Effects and issues to be addressed
- 7.3.2 Environmental management measures to mitigate impacts and effects

7.3.3 Residual impacts

7.4 Geological setting

Provide a description of impacts the mining operation may have on the geomorphology of the site or its sedimentary and geological characteristics.

7.4.1 Potential impacts and issues to be addressed

7.4.2 Environmental management measures to mitigate impacts

7.4.3 Residual impacts

7.5 Physical oceanographic setting Provide a description of the effects on the current speed/direction, etc. A regional oceanographic model will be relevant to this section.

Provide a description of the impacts (e.g., sediment plume generation, discharge water) and their effects on the oceanographic settings (e.g., changes in temperature and salinity of water, optical characteristics and turbidity, etc.). A regional oceanographic model will be relevant to this section. Characteristics of sediment and discharge plumes (their frequency, spatial extent, composition and concentration, etc.) should be described (or a reference is made to subparagraph 7.6)

7.5.1 Potential impacts and issues to be addressed

7.5.2 Environmental management measures to mitigate impacts

7.5.3 Residual impacts

7.6 Chemical oceanographic setting

Provide a description of the effects such as sediment plume generation (frequency, spatial extent, composition and concentration) and the clarity of water, particulate loading, water temperature, dissolved gas and nutrient levels etc., in all relevant levels of the water column. A regional oceanographic model will be relevant to this section. For a sea floor massive sulphide project, the modification of vent-fluid discharges, if present, should be addressed.

7.7 Seabed substrate characteristics

For example: changes in the sediment composition, grain size, density and pore-water profiles.

7.8 Natural hazards

Discuss any impacts of the operation on natural hazards and plans to deal with these hazards.

7.9 Noise and light

<u>Provide a description of potential impacts and Environmental Effects</u> from the proposed operation from, <u>n</u>Noise and light above existing levels especially the impacts of noise on marine mammals

7.10 Greenhouse gas emissions and climate change

<u>Provide anA assessment of gas and chemical emissions from proposed</u> operations, relative to emissions both natural and anthropogenic activities, as well as those affecting sea floor and water column chemistry. Subsections should include estimated greenhouse gas emissions and a greenhouse gas emissions assessment where appropriate.

7.11 Maritime safety and interactions with shipping

<u>Provide a description of predicted maritime Include project safety issues</u> and <u>potential</u> interactions with other vessels <u>from the proposed activities</u>.

7.12 Waste management

<u>Provide a description of proposed v</u>Vessel waste management, with reference to compliance with relevant conventions, legislation and principles, and methods of cleaner production and energy balance.

7.13 Cumulative impacts

<u>Provide a description of Tthe source of nature and extent of any interactions</u> between various <u>potential environmental impacts and Environmental Effects</u>. <u>wWhere they may have cumulative effects</u>, <u>they must be considered on both</u> spatial and temporal scales over the lifetime of the <u>proposed mining operation</u>.

7.13.1 Proposed operations impacts

Cumulative within the scope Impact Area of the mining proposed herein.

7.13.2 Regional operation impacts

Cumulative between activities, where known in the region.

7.14 Other issues

Outline here other, more general issues, as applicable.

7.15 Summary of residual effects

Summarize key findings on potential environmental impacts and Environmental Effects, environmental management measures, residual effects, and any potential impacts and effects to areas under any State's national jurisdiction. A table may be a useful summary format to pull together the above elements in a simple visual mode.

8. Assessment of impacts <u>and Environmental Effects</u> on the biological environment and proposed Mitigation

Provide a detailed description and evaluation of potential impacts and <u>Environmental Effects</u> of the proposed operation and alternatives considered in <u>section 3.7</u> to the biological environment components identified in section 5 in the Impact Area. This may need to cConsider impacts and effects that could happen during the construction/development (pre-commissioning), operational and decommissioning phases, as well as the potential for accidental events. The preferred approach for this template to include for each component a description of:

(a) The source (action, temporal and spatial duration) and nature of the disturbance;

(a) bis The nature and extent <u>(temporal and spatial)</u> of any actual or potential impact, including cumulative impacts;

(a)ter The methods used to determine impacts (including the assumptions and limitations of any impact modelling undertaken);

(b) Measures that will be taken to avoid, remedy or mMitigate and manage such impacts; and

(c) The unavoidable (residual) impacts that will remain, including their expected longevity.

(d) <u>A description of the impacts and effects against Thethe</u> applicable environmental goals and objectives, indicators and threshold values as identified in the applicable Regional Environmental Management Plan, <u>if any</u>.

It is important that these sections make clear the expected longevity of unavoidable (residual) impacts and whether or not the biological environment is expected to recover, and in what time frame, following disturbance. The detail in this section is expected to be based on a prior environmental risk assessment that will have identified the main impacts, and thus the elements that need to be emphasized in the environmental impact assessment.

8.1 Key messages

This section should provide an overview of the key content covered in section 8.

8.1bis Description of the key sources of environmental impacts

This section should describe the key sources of impacts on the marine environment from the mining operation.

8.2 Description of potential impact categories

This section is an overview and description of the categories of general impacts caused by the mining operation. This is not expected to be detailed, but rather to introduce the major types of <u>impacts and their</u> effects, such as habitat removal, the crushing of animals, the creation of sediment plumes, noise and light, etc. A description should be included of any lessons learned from activities during the exploratory phase of the programme (e.g., mining system component tests).

Key elements that need to be included are:

(a) <u>Descriptions of impact studies carried out during exploration (e.g.,</u> <u>component testing and the resulting observations);</u>

(b) Descriptions of the results of any environmental risk assessments, which should be based on the initial environmental risk assessment conducted in accordance with Regulation 46quarter and included in the Scoping Report, and may be included as separate reports or appendices where appropriate; and

(c) Descriptions of the methods applied to describe and quantify impact categories and assessment of associated effects that have not previously been described in section 3bis.

8.3 Surface

Description of potential effects on the biological environment from the surface down to a depth of 200 metres, including any impacts on plankton

(phytoplankton and zooplankton), nekton, surface/near-surface fish such as tuna, and seabirds, marine turtles and marine mammals.

8.3.1 Potential impacts and issues to be addressed

8.3.2 Environmental management measures to mitigate impacts

8.3.3 Residual impacts

8.4 Midwater

Description of the potential effects on the biological environment from a depth of 200 metres down to 50 metres above the sea floor, including zooplankton, nekton, mesopelagic and bathypelagic fishes and deep-diving mammals.

8.4.1 Potential impacts and issues to be addressed

8.4.2 Environmental management measures to mitigate impacts

8.4.3 Residual impacts

8.5 Benthic

Description of the potential effect on benthic invertebrate and fish communities, including infauna, epifauna and demersal fish, up to an altitude of 50 metres above the sea floor.

8.5.1 Potential impacts and issues to be addressed

8.5.2 Environmental management measures to mitigate impacts

8.5.3 Residual impacts

8.6 Ecosystem/community level

Describe estimated effects on the ecosystem or where linkages between the various components above are known.

8.6.1 Potential impacts and issues to be addressed

8.6.2 Environmental management measures to mitigate impacts

8.6.3 Residual impacts

8.7 Cumulative impacts

The nature and extent of any interactions between various impacts where they may have cumulative effects must be considered. This should include an evaluation of the spatial and temporal intensity of mining and its effects on other impacts as well as an evaluation of the nature and spatial and temporal extent of any potential and actual interference with the ecological balance of the marine environment.

8.7.1 Proposed operations impacts

Cumulative within the scope of the mining proposed herein.

8.7.2 Regional operation impacts

Cumulative between activities, where known in the region.

8.8 Summary of residual effects

A table may be a useful summary format.

9. Assessment of impacts on the socioeconomic environment and proposed Mitigation

As in the preceding sections, pProvide a detailed description and evaluation of potential impacts <u>and Environmental Effects</u> of the operation to the socioeconomic components identified in section 6. This may need to consider effects that could happen during the construction/development (precommissioning), operational (including maintenance) and decommissioning phases, as well as the potential for accidental events. The preferred approach for this template is to include for each component a description of:

(a) The <u>source</u>, nature and <u>temporal (seasonal and annual)</u> extent of any actual or potential impacts and effects from the proposed operation and <u>alternatives considered</u>, including cumulative impacts;

(a)bis The methods used to determine impacts (including the assumptions <u>and limitations</u> of any impact modelling undertaken);

(b) Measures that will be taken to avoid, remedy or mMitigate and manage such impacts within acceptable levels from the proposed operation.

(c) The unavoidable (residual) impacts that will remain.

9.1 Key messages

This section should provide an overview of the key content covered in section 9.

9.2 Impact identification

9.2.1 Existing uses

- 9.2.1.1 Fisheries A description of potential impacts and issues to be addressed, along with proposed management measures and a description of residual impacts.
 - 9.2.1.1.1 Potential impacts and issues to be addressed

9.2.1.1.2 Environmental management measures to mitigate impacts

9.2.1.1.3 Residual impacts

9.2.1.2 Marine traA description of potential impacts on non-projectrelated marine traffic occurring within the project area, along with proposed management measures and a description of residual impa

9.2.1.2bis Submarine cables

A description of potential impacts on non-project-related submarine cables occurring within the project area, along with proposed management measures and a description of residual impacts.

9.2.1.3 Tourism

A description of potential impacts and issues to be addressed, along with proposed management measures and a description of residual impacts.

9.2.1.4 Marine scientific research

A description of potential impacts and issues to be addressed, along with proposed management measures and a description of residual impacts.

9.2.1.5 Area-based management tools

A description of potential impacts and issues to be addressed, along with proposed management measures and a description of residual impacts.

9.2.1.6 Other

List other potential impacts that are not related to the above (e.g., submarine cables, other mineral Exploration or Exploitation projects).

9.2.1bis Planned uses

Describe the potential impacts on planned uses of the area for which information is publicly available (e.g. fisheries, maritime traffic, tourism, marine scientific research, submarine cables, area-based management tools).

9.3 Sites of an archaeological or historical nature

Describe, as applicable, potential impacts to sites of archaeological or historical significance that are known to occur within the potential area of impact, along with proposed management measures and a description of residual impacts.

9.4 Socioeconomic and sociocultural issues

This section will provide a description of socioeconomic and sociocultural benefits or impacts, including any applicable social initiatives.

9.4 bis Gender Impact analysis

<u>Assess and analyse how the proposed operations may impact on gender roles</u> and relationships.

9.5 Summary of existing socioeconomic sociocultural environment

Summarize key findings on potential impact and effects, management measures, residual effects, and any potential impacts and effects [to areas under any State's national jurisdiction]. A table may be a useful summary format to pull together the above elements in a simple visual mode. Potential cumulative effects should also be included.

[9bis. Assessment of Uncertainty

<u>9bis.1 Uncertainty Assessment</u>

Provide a detailed description and evaluation of any uncertainties in the assessments described in section 7, 8, and 9. This uncertainty assessment shall:

(1) Identify any relevant areas of uncertainty and gaps in knowledge and their implications for the environmental impact assessment and its findings; and,

(2) Describe the measures taken in the environmental impact assessment to reduce uncertainty in its findings to as low as reasonably practicable.]

9bis.2 Addressing Significant Uncertainty

Where significant uncertainty exists despite the efforts described in 9bis.1(b), provide a detailed description of environmental monitoring and management measures for managing and reducing uncertainty during the proposed operations, to be incorporated into the Environmental Monitoring and Management Plan and describe how these will enable the applicant to ensure compliance with relevant Rules of the Authority.]

10. Accidental events and natural hazards

Environmentally hazardous discharges resulting from accidental and extreme natural events are fundamentally different from normal operational discharges of wastes and wastewaters. This section should outline the possibility/probability of accidental events occurring, the impact they may have, the measures taken to prevent or respond to such an event and the residual impact should an event occur.

For each component include:

(a) The nature and extent of any impact;

(b) Measures that will be taken to avoid, mitigate or minimize such impact; and

(c) Residual impacts.

10.1 Extreme weather

For example: hurricanes/cyclones.

10.2 Natural hazards

For example: volcanic eruptions, seismic events.

10.3 Accidental events

For example: leakage or spillage of hazardous material, fires and explosions, and collisions, including potential loss of equipment.

11. Environmental management, monitoring and reporting

Provide sufficient information to enable the Authority to anticipate possible environmental management, monitoring and reporting requirements for an environmental approval. Information listed include a description of the applicant's environmental management system and should reflect the proponent's environmental policy and the translation of that policy to meet the requirements of this section and previous sections during different stages of the project life (i.e., from construction to decommissioning and closure).

The Environmental Management and Monitoring Plan is a separate report from the Environmental Impact Statement, but this could be a useful opportunity to highlight some of the key issues from the Statement that will be addressed in the full Environmental Management and Monitoring Plan. Information detailed in this section should include the headings set out below.

11.1 Organizational structure and responsibilities

This section should show how the Contractor's environmental team fits into its overall organizational structure. Responsibilities<u>and professional</u> <u>qualifications</u> of key personnel should be outlined. <u>Data should be disaggregated</u> <u>by gender</u>.

11.2 Environmental management system

A full environmental management system shall exist at the time the Environmental Impact Statement is submitted. The applicant has to demonstrate that it will be capable of managing <u>all_appropriate</u> relevant environmental questions, and outline the standards that will be considered and/or aligned with when developing the system for the project.

11.3 Environmental Management and Monitoring Plan

An Environmental Management and Monitoring Plan will be submitted as a separate document for the Authority's approval prior to the commencement of mining operations. This section should provide an overview of what the Plan would entail. <u>With reference to This section should include, at a minimum</u>, the headings set out below and Annex VIII of the Exploitation Regulations of the Authority. Alternatively, the applicant may prefer to submit the draft Environmental Management and Monitoring Plan alongside this EIS and use this section to cross-refer.

11.3.1 Mitigation and management

Summarize the <u>mitigation and management measures that will be taken</u>, <u>based on actions and commitments that have arisen from</u> the impact minimization and mitigation <u>analysis undertaken as part of the environmental impact</u> <u>assessment.strategies</u>.

11.3.2 Monitoring plan

Summarize the monitoring plan approach and programme.

11.3.2.1 Approach

11.3.2.2 Programme

Provide an overview of the envisaged monitoring programme (further detail will be provided in the Environmental Management and Monitoring Plan).

11.3.3 Closure Plan

A Closure Plan will be submitted as a separate document for the Authority's approval. However, this section should provide an overview of what the Closure Plan will entail, including decommissioning, continued monitoring and rehabilitation measures, if applicable. Alternatively, the applicant may prefer to submit the draft Closure Plan alongside this EIS and use this section to cross-refer.

11.4 Reporting

11.4.1 Monitoring

Outline how the results of monitoring studies will be reported to the Authority.

11.4.2 Incident reporting

Outline how Incidents will be reported and managed.

12. Product stewardship

Provide a brief description of the intended use of the mineral-bearing ore once it leaves the Area. The description should also address the meeting of standards for environmental management. The intention is not to provide a full and highly detailed account, but, where information is known about environmental impacts, these impacts should be described briefly here.

13. Consultation

Describe the nature and extent, <u>participation and outcomes</u> of consultation(s) that have taken place with <u>parties identified who have existing</u> interests in the proposed project area and with other relevant s<u>S</u>takeholders.

13.1 Consultation methods

Describe the mechanism(s) used to consult with different groups and how this aligns with any relevant consultation obligations[Standards and Guidelines]. [including in the Regulations and Standards]

13.2 Stakeholders

List any relevant sS takeholders that have been consulted and explain the process by which sS takeholders were identified.

13.3 Public consultation and disclosure

Provide a description of the goals and consultation workshops/meetings that occurred prior to the preparation of the report. Include a description of the concerns and comments identified by $s\underline{S}$ takeholders and how these will be addressed, and, if not, describe the reasons for that decision.

13.4 Continuing consultation and disclosure

Outline any further consultation with sS takeholders that has been deemed necessary and is being planned.

14. Glossary and abbreviations

Explain the relevant terms used in the Environmental Impact Statement (e.g., terms under different legislation, technical terms) and provide a list of acronyms and their definitions.

15. Study team

Outline the people involved in carrying out the environmental impact assessment studies and in writing the Environmental Impact Statement. If independent scientists or other experts were involved in any of the work, they should be listed. The names, occupational qualifications and their role in the generation of the Environmental Impact Statement of such people should also be included. <u>Any conflict of interest must be identified, reported and managed.</u>

16. References

Provide details of reference materials used in sourcing information or data used in the Environmental Impact Statement.

17. Appendices

The appendices should include all the technical reports carried out for parts of the environmental impact assessment and the Environmental Impact Statement.

Annex VII

Environmental Management and Monitoring Plan

Explanation / comment

• The wording inserted in Annex VII, is an attempt of incorporating the proposals provided by delegations and observers and especially in light of the technical nature of the annex.

1. The Environmental Management and Monitoring Plan prepared under these regulations and this annex VII shall be:

(a) Prepared in clear language and in an official language of the Authority, together with, where applicable, an official English-language version; and

(a)bis Prepared in accordance with the relevant Regulations<u>and Regional</u> <u>Environmental Management Plan</u>, taking into account applicable Guidelines, on the basis of Best Environmental Practice, Best Available Scientific Evidence, and Best Available Information; and

(b) Verified by the report of independent competent persons appointed by the Authority.

2. An Environmental Management and Monitoring Plan shall contain:

(a) A non-technical summary of the main conclusions and information provided to facilitate understanding by members of the Authority and Stakeholders;

(b) A description of the <u>project and the</u> area likely to be affected by the proposed activities, the Preservation Reference Zones, and the surrounding area with reference to the Regional Environmental Management Plan;

(b)bis A description of relevant legal and administrative frameworks applicable to the proposed Plan of Work, including: the rules, regulations and procedures o the Authority; the applicant's own environmental policy, regulations of the Sponsoring State, and other relevant policy or legal instruments to which the applicant may be subject (e.g. environmental or sustainability requirements from funders);

(b)ter A description as to how the Environmental Management and Monitoring Plan has been prepared, and a list of Stakeholders

(c)bis A description of the environmental baseline data, including measured baseline values for parameters at the site, a characterization of the area proposed to be mined, adjacent areas that could be affected by mining, rare and endangered species present, and areas that will be avoided due to their environmental value.

(c) The <u>project-specific</u> _environmental objectives, <u>indicators and</u> <u>thresholds</u> based on baseline environmental data and <u>relevant</u> standards to be met;

(d) Details of <u>or cross-references to</u> the Environmental Management System <u>including allocation of roles and responsibilities</u> {and the training <u>programme} forand the applicant's environmental policy;</u>

- implementing the measures reflected in the EMMP,
- monitoring, recording and reporting fulfilment of the EMMP, and

• regularly reviewing and updating the EMMP to ensure that it complies with rules, regulations, and procedures of the Authority;

(e) An assessment of the <u>potential [possible] [predicted]</u> Environmental Effects of the proposed activities on the Marine Environment, <u>including how long</u> they will last, and any significant changes likely to result, <u>consistent with the</u> environmental impact assessment and the Environmental Impact Statement;

(e)bis <u>A</u> description of uncertainties identified from the environmental impact assessment and the plan to reduce or manage these;

(f) An assessment of the significance of the potential Environmental Effects, and proposed mitigation measures and management control procedures and responses to minimize prevent, reduce and control the harm from Environmental Effects consistent with the environmental impact assessment and the Environmental Impact Statement;

(g) A description of the planned monitoring programme and the overall approach, standards, protocols, methodologies, procedures and performance assessment of the Environmental Management and Monitoring Plan, including the necessary risk assessment and management techniques, including the use of monitoring data to validate predictive models and reduce uncertainties, and adaptive management techniques (process, procedure, response), if appropriate, needed to achieve the desired outcomes Each component should be described separately in a manner consistent with sections 7-10 of Annex IV. This section should also include monitoring targets and actions that will contribute to an understanding of regional and cumulative effects and inform the Authority's Regional Environmental Management Plan.

(h) Details of the proposed monitoring stations across <u>and beyond</u> the <u>project contract</u> area, including the frequency of monitoring and data collection, the spatial and temporal arrangements for such monitoring and the justification for such arrangements, including how in situ validation of modelled results will <u>be carried out</u>;

(i) The location and planned monitoring and management of preservation reference zones and impact reference zones, <u>or as well as</u> other spatial management planning tools <u>if any</u>;

(i)bis The location and boundaries of planned or established long-term protected areas as determined in the applicable Regional Environment Management Plan;

(i)ter Details of any plans outside of the Contract Area to increase scientific knowledge in the relevant region, including in collaboration with other contractors or via international cooperation efforts;

(j) A description, with threshold levels, of relevant the applicable environmental performance Standards and indicators (trigger and threshold points) to be monitored, including decision rules based on the results of the monitoring of these indicators;

(k) A description of a system for ensuring that the plan shall adhere to Good Industry Practice, Best Available Techniques, <u>Best Environmental Practices</u> and Best Available Scientific Evidence, and a description of how such practices are reflected in the proposed Exploitation activities;

(l) Details of the quality control and management standards, and how the effectiveness of management measures will be monitored, assessed and reviewed,

including list of reporting deliverables to the Authority and time schedule, plans for real-time reporting of environmental data to the Authority, internal and external auditing and reporting of environmental performance, and including the frequency of the review of the performance of the Environmental Management and Monitoring Plan for the purposes of Regulation 51;

(m) A description of the <u>monitoring</u> technology <u>and system</u> to be deployed, in accordance with Good Industry Practice and Best Available Techniques, reflecting the types of data to be collected and monitored, the use of remote monitoring technology and the types of data available in realtime together with a description of the procedures for providing the Authority and the sponsoring State or States access to the monitoring system and data for the purposes of monitoring compliance with the Environmental Management and Monitoring Plan and collection of data;

(n) Details of the training programme for all persons engaged or to be engaged in activities in the project area;

(o) Details of Mining Discharges, including a waste assessment and prevention auditDetails of discharges, as defined by relevant IMO conventions, within the project area;

(p) Details of ongoing consultation with other users of the Marine Environment;

(p)bis Details of arrangements made or planned with other marine users, with the aim to ensure due regard to each other's rights and activities.

(q) Details of any practicable restoration <u>and rehabilitation</u> of the project area;

(r) A plan for further research and studies; and

(r)bis Detail of the process and measures to be taken in case of non - compliance with the Environmental Monitoring and Management Plan.

(r)bis A description of the measures that will be taken to address noncompliance with the Environmental Monitoring and Management Plan, including reporting, recording and response action protocols;

(r)ter A description of the document control system that will be used for environmental management documentation; and

(s) Details of reporting requirements and timing.

Annex VIII

Closure Plan

1. The Closure Plan shall be prepared and implemented in accordance with the <u>Standards and taking into account the relevant</u> Guidelines and the relevant regional environmental management plan_and shall include the following information:

(a) A description of the closure objectives and how these relate to the mining activity and its environmental and social setting;

(b) The period during which the plan will be required, which shall be determined by reference to a specified duration, achievement of a specified event or target indicator or compliance with specified terms agreed with the Authority;

(c) A plan with coordinates showing the area(s) subject to the closure objectives;

(d) A summary of the relevant regulatory requirements, including conditions previously documented;

(e) Details of the closure implementation and timetable, including descriptions of the arrangements for the temporary suspension of mining activities or for permanent closure decommissioning arrangements for vessels, Installations, plant and removal of <u>all-any</u> equipment (where applicable);

(f) Data and information relating to baseline conditions for monitoring measures;

(g) An updated environmental impact assessment for the activities that will be undertaken during closure, if any, together with details of the identifiable residual Environmental Effects, including any relevant technical documents or reports;

(h) Details of monitoring to be undertaken during and after closure that specify the sampling design (spatial and temporal sampling), the methods to be used and the duration of the post-closure activities;

(i) Details of the management measures to Mitigate <u>mitigate prevent</u>, <u>reduce and control</u> the residual Environmental Effects;

(j) Details of the restoration and remediation objectives and activities;

(k) Information on reporting and management of data and information post-closure including information on how data will be archived and made available post-closure;

(1) Details of the persons or entity (subcontractor, consultant(s)) that will carry out the monitoring and management measures under the Closure Plan, including their qualification(s) and experience, together with details of the budget, project management plan and the protocols for reporting to the Authority under the Closure Plan;

(m) Details of the amount of the Environmental Performance Guarantee provided under these regulations;

(n) Details of any measures agreed or proposed to achieve the agreed closure objectives; and

(o) Details of consultations with Stakeholders in respect of the plan.

2. The level of detail in the Closure Plan is expected to differ between cases involving a temporary suspension of mining operations and cases involving final mine closure. The content of the Closure Plan is to be commensurate with the nature, extent and duration of activities associated with the level of closure and maturity of the project.

Schedule

Use of terms and scope

Explanation / comment

• I wish to draw the attention of delegations to the fact that the President in his Statement had indicated that the Schedule is to be examined by the Council in plenary. In which case, all comments received have been added to the text with the anticipation that this would be considered and discussed in the plenary.

"Environmental Effect" means any consequences in the Marine Environment arising from the conduct of Exploitation activities, whether positive, negative, direct, indirect, temporary or permanent, or cumulative effect arising over time or in combination with other stressors and activities in the same area, including those not regulated by the Authority.

"Best Environmental Practices" means the application of the most appropriate combination of environmental control measures and strategies, that will change with time in the light of improved knowledge, understanding or technology, as well as the incorporation of the relevant traditional knowledge of Indigenous Peoples and local communities, taking into account the applicable Standards and Guidelines.

"Environmental Management System" means that the part of the overall management system applied implemented by a Contractor that includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining environmental policy, goals objectives and environmental performance.

"Environmental Risk" means the chance of something happening that will have an adverse effect measured in terms of the environmental consequences and the likelihood of those particular consequences occurring.

"Environmental Risk Assessment" means the process for identifying and evaluating Environmental Risk using a generally accepted risk assessment methodology'.

"Synergistic Impacts" means joint effects caused for the interaction of two or more simultaneous activities that result in a combined effect that is greater than the sum of individual and isolated effects.

"Environmental Effect" means any consequences in the Marine Environment arising from the conduct of Exploitation activities, whether positive, negative, direct, indirect, temporary or permanent.

"Cumulative environmental effect" means any consequences in the Marine Environment arising over time from the conduct of Exploitation activities or in combination with other mining impacts stressors and activities in the same area, including those not regulated by the Authority.

Explanation / comment

• It is suggested that the further elaboration of which cumulative effects are covered in the definition be explained by its proponent and further consideration be given to the issue.