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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

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1. At the first part of the twenty-sixth session of the Authority, the Council decided to establish three informal working groups, with the mandate and working modalities set out in the annex to its decision (ISBA/26/C/11). In accordance with that decision, I was appointed as Facilitator of the Informal Working Group on the protection and preservation of the marine environment.

2. I prepared this document to assist discussions in the Informal Working Group. Enclosure I presents a revised version of Parts IV and VI and Annexes IV, VII and VIII of the Draft regulations on exploitation of mineral resources in the Area (ISBA/25/C/WP.1) based on the discussions of the Council at the first part of the twenty-sixth session. Proposed revisions to the Schedule of relevance to these Parts are also included. Enclosure II addresses issues which are broader than the environmental matters that are within the purview of the Informal Working Group and may therefore need to be considered in the context of other discussions, including those taking place in the Finance Committee in the context of equitable sharing of financial and other economic benefits.

3. The revisions are reflected as marked-up text. I implemented the following approach to the revisions:

(a) Only those proposals (either made orally by member States and observers during the February 2020 session or those reflected in document ISBA/26/C/CRP.1) in respect of which I did not hear express opposition to at the session in February 2020 are reflected, without prejudice to their future consideration or the possibility for delegations to re-introduce textual proposals¹ not incorporated in the present document. I am also circulating, as background information for the March negotiations at the Informal Working Group, a paper incorporating textual proposals received from members and observers by 15 October 2019 related to Parts IV and VI

¹ See https://isa.org.jm/files/files/documents/compile_council_2_final.pdf ; and https://isa.org.jm/files/files/documents/comments-jan2020a_final.pdf . See also ISBA/26/C/2, paragraph 1.

and Annexes IV,VII and VIII of the draft regulations (ISBA/25/C/WP.1). That paper was compiled following the same approach as the article-by-article compilation of textual proposals prepared by the United Nations Secretariat for the fourth session of the Intergovernmental conference on an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction;²

(b) 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;

(c) Placeholders were introduced for proposals for which conceptual discussions took place and clarifications were sought from the proponents or for proposals which are linked to further work requested by the Council;

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

² <https://www.un.org/bbnj/content/fourth-substantive-session>

Enclosure I

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 ~~each, as appropriate within their respective competence,~~ adopt, plan, implement and modify measures necessary for ensuring effective protection for the Marine Environment from harmful effects which may arise from Exploitation in the Area or from shipboard processing immediately above a mine site of minerals derived from that mine site, in accordance with the Convention, the Agreement, the rules, regulations and procedures adopted by the Authority ~~in respect of activities in the Area, as well as the Standards referred to in regulation 45.~~ To this end, ~~they shall:~~

(a) In establishing and keeping under periodic review environmental rules, regulations and procedures, in accordance with the Convention and the Agreement, the Authority shall:

(i) Apply the precautionary approach, as reflected in principle 15 of the Rio Declaration on Environment and Development, and the ecosystem approach to the assessment and management of risk ~~of harm~~ to the Marine Environment from Exploitation in the Area;

(ii) Apply the Best Available Techniques and Best Environmental Practices ~~in carrying out such measures;~~

~~(iii)~~ Integrate Best Available Scientific Evidence in ~~environmental~~ 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)~~ Promote—Require accountability and transparency in the assessment, evaluation and management of Environmental Effects from Exploitation in the Area, including through stakeholder engagement and the timely release of and access to relevant environmental data and information ~~and opportunities for stakeholder participation.~~

(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 Convention and the rules, regulations and procedures adopted by the Authority related to the protection for the Marine Environment from harmful effects, the Sponsoring State shall 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 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 from Exploitation in the Area, including through stakeholder engagement and the timely release of and access to relevant environmental data and information.

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 above.

Explanation / comment

- Draft regulation 44 was the object of a number of comments, in particular the need to clearly differentiate and set out the responsibilities of the various actors with regard to the general obligations. The proposed revisions and re-structuring aim to respond to those comments by specifying the respective responsibilities of each actor.
- The reference to the precautionary approach in paragraph 1 was kept as originally drafted, for consistency with the current text of the Exploration Regulations. It is noted that this is the term used in the Agreement for the implementation of the provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the conservation and management of straddling fish stocks and highly migratory fish stocks and the General Assembly resolutions on oceans and the law of the sea. Further information on the implementation of the precautionary approach is available in a note prepared by the Secretariat for the twenty-fifth session of the Authority (ISBA/25/C/8).
- It is noted that a proposal was made to specify, in the paragraph related to Rio Principle 15 that “where information is uncertain or inadequate, the Authority shall favour caution and environmental protection”. The proponent is invited to clarify if this is aimed at elaborating on the concrete application of Rio Principle 15 or if this is an additional requirement. Rio Principle 15 reads as follows:
“In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”
- In light of the proposal to include a reference to the “ecosystem approach” in paragraph 1, further consideration of the practical implications of this proposal may be needed, including the possibility of providing a definition for the term in the Schedule.

- It is proposed that a reference to “shipboard processing immediately above a mine site of minerals derived from that mine site” be added to paragraph 1 for completeness and consistency with Annex III, para 17(2)(f).
- It is also proposed that a new paragraph 2 be added to reflect a concomitant obligation on flag States, when adopting laws and regulations pursuant to article 209 of the Convention, to also implement the pertinent measures required of the Authority, sponsoring States and contractors under paragraph 1, including in light of the requirement in article 209 that the requirements of such laws and regulations shall be no less effective than the international rules, regulations and procedures established in accordance with Part XI of the Convention.

[Regulation 44bis

Regional Environmental Management Plans]

Placeholder

- A proposal was made for a new provision 44bis addressing Regional Environmental Management Plans (see ISBA/26/C/CRP.1).
- In light of the process subsequently decided upon by the Council concerning a standardized approach for the development, approval and review of Regional Environmental Management Plans in the Area (ISBA/26/C/10), it is suggested that delegations focus their discussion on paragraph 3 of the proposal, which is most directly related to these draft regulations. The paragraph reads:

“3. 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.”

- Discussions could also consider the possible placement of such a provision in Part II, sections 3 and 4, or to Regulation 94, if kept in the draft regulations.

Regulation 45

Development of environmental Standards

Environmental Standards shall be developed in accordance with regulation 94 and shall include the following subject matters:

- (a) Environmental quality objectives, including on biodiversity status, plume density and extent, and sedimentation rates;

- (b) Monitoring procedures; and
- (c) Mitigation measures.

Explanation / comment

- The Legal and Technical Commission have commenced their preparation of environmental Standards pursuant to Regulation 45, including, for instance, the Standard for environmental impact assessments. Regulation 45 serves as an explicit regulatory basis for the preparation of those environmental Standards. In view that the Commission has prepared also related draft guidelines, consideration should be given as to whether the chapeau and title of Regulation 45 should also make explicit reference to “Guidelines”.
- A proposed new paragraph 2 (see ISBA/26/C/CRP.1), which reads:
2. The Authority shall not approve any Exploitation activities unless the necessary environmental Standards have been adopted.
 would require further discussion, including concerning its possible placement in Part II, sections 3 and 4, or to Regulation 94, if kept in the draft regulations.

**Regulation 46
Environmental management system**

1. A Contractor shall develop, implement and maintain an environmental management system, in conformity with the applicable Standard and taking account of the relevant Guidelines.
2. An environmental management system shall:
 - (a) ~~Be capable of delivering site specific the Authority’s~~ environmental objectives at the mine site and Standards as reflected in the Environmental Management and Monitoring Plan;
 - (b) Be audited by an capable of cost effective, independent ~~auditing by~~ recognized and accredited international or national organization~~s~~; and
 - (c) Permit effective reporting to the Authority in connection with environmental performance.

Explanation / comment

- The revisions to this draft regulation, building on proposals from various delegations, aim at clarifying the original wording including in terms of who should develop the environmental management system and who should audit it.
- The reference to environmental objectives was also further clarified to make it clear that the environmental objectives to be achieved at the mine site are to be set by the Authority.
- In light of queries from some delegations, attention is drawn to the ISA publication “A Discussion Paper on the development and drafting of Regulations on Exploitation for Mineral Resources in the Area

(Environmental Matters)”, which provides information on the concepts of environmental management systems, environmental management and monitoring plans and environmental impact assessment (available at <https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/documents/EN/Regs/DraftExpl/DP-EnvRegsDraft25117.pdf>).

- It is noted that one delegation preferred keeping the original wording of Regulation 46, while another suggested that paragraph 2 was not necessary as the elements could be incorporated in the relevant guideline.

Regulation 46bis

Environmental impact assessment

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

2. The environmental impact assessment shall include:

(a) Scoping to identify and prioritize the main activities and potential impacts associated with the proposed mining operation, in order to focus the Environmental Impact Statement on the key environmental issues;

(b) Impact assessment and evaluation 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;

(c) Identification of measures to prevent, mitigate and manage harmful effects to as low as practicable, including through the development and preparation of an Environmental Management and Monitoring Plan; and

(d) Preparation of the Environmental Impact Statement in accordance with Regulation 47 and the relevant Guidelines.

3. Screening shall also be part of an environmental impact assessment 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 shall:

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

(c) Provide for stakeholder consultation; and

(d) Be subject to an independent scientific assessment prior to the submission of the Environmental Impact Statement to the Authority.

5. A Contractor shall review impact assessments, including for cumulative impacts of activities covered by the assessment, periodically 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 in accordance with Part II or regulation 57, as the case may be.

7. 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.

Explanation / comment

- The proposed new regulation 46bis aims to respond to concerns expressed by delegations that a requirement for an environmental impact assessment should be clearly set out in the draft regulations. While this new regulation provides for the general obligation to undertake an EIA, the document to be prepared following the EIA and submitted to the Authority, namely the Environmental Impact Statement, is set out in Regulation 47.
- The current draft regulation 46bis is based on the elements formerly included in Regulation 47(1), as adjusted and complemented with proposals by delegations which I did not hear opposition.
- Paragraph 2 aims at identifying the key elements of an EIA. In light of the fact that undertaking an EIA is always a requirement prior to the approval of a Plan of Work, and therefore not subject to the outcome of a screening phase, paragraph 3 aims at specifying the circumstances under which screening may be part of an EIA.
- Some delegations made proposals setting out in detail the specific steps of an EIA. It is noted that the Legal and Technical Commission developed a draft Standard concerning the EIA process, including details of the required steps, and draft Guidelines on the EIA and EIS. I, therefore, consider it is not necessary to specify more details in this Regulation.
- Paragraph 4 aims to set out some framing elements for the conduct of the EIA. The proposal by a delegation which suggested that the EIA shall “be based on the prior testing of equipment and operations in the Mining Area under application” can be revisited in light of the outcome of the discussions on “test mining”.
- Paragraph 6 clarifies that the decision concerning whether an activity should proceed or not, based on the information provided through the environmental impact assessment and as reflected in the Environmental Impact Statement, is made by the Authority.
- Paragraph 7, the wording of which is based on article 142 of the Convention, aims at accommodating different views concerning involvement of coastal States in the EIA process.

Regulation 46ter

Environmental monitoring

1. The Contractor, through the Environmental Management and Monitoring Plan required under Regulation 48, shall observe, measure, evaluate and analyse, by recognized scientific methods, the risks or effects of pollution and other hazards to the marine environment of 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 likely to have harmful effects on the marine environment.
2. The Contractor shall cooperate with the Authority and the sponsoring State or States in the establishment and implementation of monitoring programmes.
3. The Contractor shall report annually in writing to the Secretary-General on the implementation and results of the monitoring programme referred to in paragraph 2, in accordance with regulation 38, paragraph 2(g), and shall submit data and information, in accordance with the relevant Standards, and taking into account the relevant Guidelines and recommendations issued by the Commission. The Secretary-General shall transmit such reports to the Commission for its consideration pursuant to article 165 of the Convention.
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 interests, in accordance with Regulation 4.

Explanation / comment

- New regulation 46ter aims at providing for the obligation to continuously monitor the effects of the mining operation on the marine environment. The preparation of the document setting out the manner in which this is done and which is to be submitted to the Authority, the Environmental Management and Monitoring Plan, is provided for in Regulation 48.
- The proposed text is based on similar provisions in the Exploration Regulations and on articles 205 and 145 of the Convention.
- Paragraph 5, the wording of which is based on article 142 of the Convention, aims at accommodating different views concerning involvement of coastal States.

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.

3. The Environmental Impact Statement shall be in the form prescribed by the Authority in annex IV to these regulations and shall ~~be~~:

(a) ~~Be Inclusive~~ inclusive of a prior environmental risk assessment;

(b) ~~Be Based~~ 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;

~~(ed)~~ Be In ~~in~~ accordance with the objectives and measures of the relevant regional environmental management plan; and

~~(de)~~ Be Prepared ~~prepared~~ in accordance with the applicable Guidelines, Good Industry Practice, Best Available Scientific Evidence, Best Environmental Practices and Best Available Techniques.

4. The Environmental Impact Statement shall 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.

Explanation / comment

- The elements concerning environmental impact assessments formerly contained in draft regulation 47(1) were removed and included in the new regulation 46bis setting out the requirements for an environmental impact assessment.
- Wording was introduced in paragraph 1 to clarify that the EIS was part of the application process and to be considered in that context.

Regulation 48

Environmental Management and Monitoring Plan

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 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.

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

3. The Environmental Management and Monitoring Plan shall cover the main aspects prescribed by the Authority in annex VII to these regulations and shall be:

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

(b) In accordance with the relevant regional environmental management plan; and

(c) Prepared in accordance with the applicable Guidelines, Good Industry Practice, Best Available Scientific Evidence, [Best Environmental Practices](#) and Best Available Techniques, and consistent with other plans in these regulations, including the Closure Plan and the Emergency Response and Contingency Plan.

[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.](#)

Explanation / comment

- Should the change proposed by a delegation from environmental “effects” to “impacts” be agreed upon by delegations in paragraph 1, this change would need to be considered throughout the Draft regulations, bearing in mind that article 145 of the Convention uses the term “effects”. The attention of delegations is drawn to the ISA publication “A Discussion Paper on the development and drafting of Regulations on Exploitation for Mineral Resources in the Area (Environmental Matters)”, which provides information on the use of the terms “Impact”, “Effect” and “Change” (available at <https://ran-s3.s3.amazonaws.com/isa.org/jm/s3fs-public/documents/EN/Regs/DraftExpl/DP-EnvRegsDraft25117.pdf>, paragraphs 7.2-7.4).
- The new paragraph 4 echoes paragraph 3 of the new draft regulation 46ter and draft regulation 38(2)(g). Consideration could be given to including the reporting requirement in only one of these provisions.

**[Regulation 48bis
Test mining]**

Placeholder

- A proposal was made for a new provision 48bis addressing test mining (see ISBA/26/C/CRP.1).
- Several delegations sought clarification on the concept of “test mining”, including what it encompassed and its purpose. Attention is drawn to the revised Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area issued by the Legal and Technical Commission (ISBA/25/LTC/6/Rev.1 and Corr.1), which provide definitions for “test mining” and “testing of mining components”.
- While a number of delegations expressed support for the inclusion of a provision concerning “test mining”, different views were expressed on whether there should be a mandatory requirement, whether it should take place both when applying for approval of a Plan of Work and before commercial production, for every project or only the first one, whether it should be subject to an EIA, and how this related to the tests carried out during exploration.
- A delegation suggested that a provision on “test mining” may be better placed in Regulation 7 rather than in Part IV.

- The Facilitator suggests that further discussions take place on these issues.

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, including by preventing, ~~reduce~~ reducing and controlling pollution and other hazards, including marine litter and underwater noise, ~~to the Marine Environment~~ from its activities in the Area, in accordance with the Environmental Management and Monitoring Plan, the relevant Regional Environmental Management Plan and the applicable Standards and Guidelines.

Explanation / comment

- The revisions proposed by some delegations for draft regulation 49 include a combination of articles 192, 194 and 145 of the Convention, which seems to broaden the obligation originally focused on pollution control. It is noted that the general obligation of the Contractor with regard to the protection of the marine environment from harmful effects is included in draft regulation 44.
- The inclusion of various pollution sources and types, such as marine litter and underwater noise, may need to be further discussed.

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 GuidelinesStandard; 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 carried out 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 ~~Serious~~ 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.

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) is considered an Unauthorized 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.

Explanation / comment

- The revisions to paragraph 2 aim at reflecting suggestions by a number of delegations that accidental or emergency dumping should be consistent with the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matters, 1972, and the 1996 Protocol thereto, in particular article 8 of the Protocol.
- The revised wording of paragraph 4 aims to address concerns expressed regarding a proposal suggesting a formulation of “not undermining”.

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 ~~the terms and conditions of~~ its Environmental Management and Monitoring Plan and these regulations:

(a) Monitor and report annually under regulation 38 (2) (g) on the Environmental Effects of its activities on the Marine Environment, and manage all such effects as an integral part of its Exploitation activities as set out in the Standards referred to in regulation 45;

(b) Implement all applicable Mitigation and management measures to protect the Marine Environment, as set out in the Standards 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 with Best Available Techniques and Best Environmental Practices and taking account of the relevant Guidelines.

Regulation 52

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

1. ~~A Contractor~~The Authority shall ~~conduct review the~~ performance assessments of the Environmental Management and Monitoring Plan undertaken by the Contractor in accordance with the relevant Standards and Guidelines to assess:

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

(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 relevant Regional Environmental Management Plan.

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 annually;

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.

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, taking account of the Guidelines ~~or~~ and the ~~conditions attaching to 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; 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 reports and 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.

Explanation / comment

- The revisions aim to respond to the comments of a number of delegations concerning the need to: reinstate a minimum period at which the performance assessment should be undertaken; clarify the fact that the Authority is carrying out a review of the assessment, while the Contractor provides the report on which the review is based; and include the possibility for ad hoc assessments in case of specific situations as listed in paragraph 2bis.
- The frequency of the assessments in paragraph 2 may need to be further discussed, noting that another delegation suggested that such frequency “shall be no less than 24 months”.
- Issues concerning the frequency of and the reporting on the performance assessment in this draft regulation may also need to be reconsidered in light of the overall reporting burden on the Contractor (who would be required to report simultaneously on the implementation of the EMMP and provide a performance assessment of the same EMMP) as well as the burden on the LTC, which would, in the same year, review the implementation of the EMMP in the context of the annual report, and also review the performance assessment of the EMMP and provide recommendations relating to both to the Council at the same time. It may be suggested that annual reporting on implementation is sufficient, with performance assessment triggered by the events specified in paragraph 2bis, or on a periodic basis, which should be long enough to develop a basis of information and experience to be reviewed.

**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~~ Standards and Guidelines and shall be tested at least annually; and

(b) Such resources 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.

2. Contractors, the Authority and sponsoring States shall consult 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 control hazards throughout the mining life cycle, 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 the plan was complied with, including, among other aspects, expenses incurred, responsibilities and updating of the plan if necessary.

Explanation / comment

- Consideration could be given to moving draft regulation 53 up to section 3 as it seems more appropriately placed there.

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 will-shall be established by the Council on the recommendation of the Finance Committee before the commencement of commercial activities.
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

- It is noted that the term “commercial activities”, proposed in paragraph 2, is not defined in the draft regulations. The proponent is invited to clarify if this is meant to refer to “commercial production” instead.

Regulation 55

Purpose of the Environmental Compensation Fund

The main purposes of the Fund will include:

~~(a) is the The~~ funding of or compensation for the implementation of any necessary measures designed to prevent, limit or remediate 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 Best Available Scientific Evidence, the costs of which cannot be recovered from a Contractor or sponsoring State, as the case may be.;

~~(b) The promotion of research into methods of marine mining engineering and practice by which environmental damage or impairment resulting from Exploitation activities in the Area may be reduced;~~

~~(c) Education and training programmes in relation to the protection of the Marine Environment;~~

~~(d) The funding of research into Best Available Techniques for the restoration and rehabilitation of the Area; and~~

~~(e) The restoration and rehabilitation of the Area when technically and economically feasible and supported by Best Available Scientific Evidence.~~

Regulation 56

Funding of the Environmental Compensation Fund

The Fund will consist of 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

- The revisions to Section 5 aim to implement the wish of delegations to make the Environmental Compensation Fund established under this Part limited to the issues identified in the ITLOS Seabed Disputes Chamber Advisory Opinion.
- The suggestion by a number of delegations that the Fund be financed by monies paid by Contractors was implemented for clarity in the appropriate sub-paragraphs.
- A proposal was made for restoration and rehabilitation of the Area to form part of decommissioning and the closure plan instead of being included in either Fund. It is noted that restoration and rehabilitation are already included in draft regulation 59, paragraph 2(f).
- Questions were raised and suggestions made concerning the modalities of operation of the Fund, including:
 - (a) participation of vulnerable communities and stakeholders in decisions about disbursement of funds;
 - (b) how the funds and any interests generated will be managed and by whom;
 - (c) when and how disbursements, reimbursements and refunds can be made;
 - (d) what the process for accessing the fund would be;
 - (e) the standard of proof that would be required;
 - (f) the types of damages and purposes for which access to the fund is eligible;
 - (g) what happens if there is damage to the environment before the money is paid;
 - (h) the basis for assessing the amount to be paid by contractors;

(i) whether affected coastal States would be involved in the decisions on how to use the funds to implement the activities.

- Such issues could be addressed in the rules and procedures to be established pursuant to draft regulation 54(2).
- The provisions addressing environmental research and training are now captured in Enclosure II to the present document, without prejudice to their future placement in the regulations. Whilst these provisions may be discussed by the informal working group, it may be noted that similar issues are also being discussed in the Finance Committee in the context of the discussions on benefit-sharing.

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 ~~and natural~~ 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 and is conducted in accordance with Good Industry Practice, Best Environmental Practices, ~~and~~ 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;
 - (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;
 - (e) Any residual ~~negative~~ Environmental Effects are identified and quantified, and management responses are ~~considered~~ implemented, including plans for further Mitigation or remediation where appropriate;
 - (f) Any restoration or rehabilitation commitments will be fulfilled in accordance with predetermined criteria or standards; ~~and~~ (f)bis Requirements regarding the removal of all Installations and equipment from the Mining Area are addressed; and
 - (g) The mining activities are closed or suspended efficiently and cost-effectively.
3. The Closure Plan shall cover the ~~main~~ aspects prescribed by the Authority in annex VIII to these regulations.
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 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

- While a proposal was made to delete the reference to “post-closure” management and monitoring in paragraph 1 (see ISBA/26/C/CRP.1) in light of the fact that a Closure Plan should involve both pre- and post-decommissioning works, it is noted that the current wording is consistent with the current wording of draft regulation 26(2)(c). Should a change be made here, regulation 26(2)(c) would also need to be amended.

- The references to residual environmental effects in paragraphs 1 and 2(e) were harmonized with other such references in the draft regulations in particular draft regulation 26(2)(c) and for consistency with the definition of “Environmental Effects” in the Schedule, by deleting “natural” and “negative”.
- It is noted that some delegations raised concerns with the reference to mining activities being closed or suspended “cost-effectively” in paragraph 2(g). This may need further consideration.

Regulation 60

Final Closure Plan: cessation of production

1. A Contractor shall, at least ~~12~~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.
2. The Commission shall examine the final Closure Plan at its next meeting, provided that it has been circulated at least ~~30~~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 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 shall review the amount of the Environmental Performance Guarantee provided under regulation 26.
8. The Council shall consider the report and recommendation of the Commission relating to the approval of the final Closure plan.

Explanation / comment

- The time period in paragraph 1 was extended, as proposed by a delegation, to make clear that the process (including public consultation) may take considerable time.
- The reference to the “applicable” Regional Environmental Management Plan in paragraph 1 will need to be harmonized with other similar references throughout the draft as it is noted that such references

sometimes refer to the “relevant” Regional Environmental Management Plan.

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 Guidelines.
3. The Contractor shall 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

- A suggested frequency for the report to be provided on the progress in implementation of the Closure Plan was added in paragraph 1 as proposed by a delegation.

Annex IV

Environmental Impact Statement

Explanation / comment

- While the proposals which in my view did not encounter any opposition at the February 2020 session of the Council are reflected in Annex IV, it is noted that the Legal and Technical Commission on this issue developed a draft standard and draft guidelines on Environmental Impact Assessments and draft guidelines on the preparation of the Environmental Impact Statement.
- Discussions will need to continue regarding the mandatory or recommendatory nature of the template, noting that different views were expressed at the February session of the Council and that draft regulation 47(3) currently states that the Environmental Impact Statement *shall* be in the form prescribed in Annex IV. It is noted that sections 1 and 2 below seem currently contradictory on this aspect, with section 1 using mandatory language while section 2 uses recommendatory language.

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, 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 considers an 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 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.

The 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. It does not provide details of methodology or thresholds that may be resource- and site-specific. These methodologies and thresholds may be developed as Standards and Guidelines to support the regulations.

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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 development and its objectives;
- (b) Economic, financial and other benefits to be derived from the project;
- (c) Anticipated impacts of the activity (physicochemical, biological, socioeconomic);
- (d) Mitigation measures to minimize environmental 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.

Explanation / comment

- The proposed reference to the Authority's global environmental policy and strategy in paragraph (e) may need further discussion and explanation by the proponent of this addition, in particular whether this is intended to refer to the Authority's environmental goals and objectives currently under development.

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. 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 agreements/instruments

Outline the national and international legislation, regulation or guidelines as well as the Regional Environmental Management Plan that apply to the management or regulation of Exploitation in the Area, including how the proposed operation will comply with implement them.

2.2 Other applicable 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.

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-list the international agreements applicable to the operation, such as ~~the United Nations Convention on the Law of the Sea and~~ the International Maritime Organization suite of environmental and safety conventions, 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 of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) and the 1996 Protocol thereof; the Convention on Biological Diversity and the Convention on Migratory Species of Wild Animals; and applicable regional agreements.

Explanation / comment

- The revision in the first part of the paragraph aims at making clear that the Convention and the Part XI Agreement are not optional instruments, since the application of these instruments is not left to the appreciation of the Contractor or sponsoring State.
- In light of the proposed additional instruments considered potentially applicable by delegations, as reflected in the second part of the paragraph, and of the fact that sponsoring States, flag States and port States may not all be parties to the specific instruments, consideration could be given to including a more general formulation along the following lines:

“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, such as the International Maritime Organization environment and safety-related conventions, applicable environmental and biodiversity conventions, and applicable regional agreements.”

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 Standards and Guidelines of the International Seabed Authority, 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 standards of the Extractive Industries Transparency Initiative.

3. Description of the proposed development

Provide details of the proposed development activity, 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 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) 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 should be provided, along with visual models of the resource.

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 and temporal scales of the mining operation, including volumes of material to be recovered, processed and deposited or discharged into the water column or back to the seabed. 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), which will be discussed in greater detail later.

3.3.2 Mining

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 and other details of the mining activities.

3.3.3 Transport/materials handling

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

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.

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.

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 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 and rejected in favour of the current proposal. Aspects should include the selection of the mine site, mine production scenarios, 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.

Explanation / comment

- The proposed reference to “the development and testing of mining equipment, operations and systems” in paragraph (b) could be further explained by its proponent and revisited in light of the

Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area issued by the Legal and Technical Commission (ISBA/25/LTC/6/Rev.1 and Corr.1), which provide definitions for “test mining” and “testing of mining components”.

4. Description of the existing physicochemical environment

Give a detailed account of knowledge of the environmental conditions at the mine site, 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 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 environmental conditions of the site, including the geological and oceanographic setting within a broader regional context [and refer to the applicable Regional Environmental Management Plan.](#) This should be brief section that includes a map. A more detailed site-specific 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 climatology (e.g., wind directions and speeds, seasonal patterns). This section may be most relevant to surface operations.

4.5 Geological setting

Describe the nature and extent of the mineral resource and bedrock within a broader geological context. Describe the ~~general geological landscape and topographic features~~ [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.](#)

4.6 Physical oceanographic setting

Provide a description of oceanographic aspects such as currents, [sedimentation rates](#), [oceanographic fronts](#), [eddies](#), [particle flux](#) and waves. 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 ~~and geochemistry~~, etc.

4.8 Seabed substrate characteristics

Provide a description of substrate composition, including physical and chemical properties (e.g., sediment composition, pore-water profiles, grain size, sediment mechanics).

4.9 Natural hazards

Provide a description of 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, and the influence of existing Exploration and maritime activity.

4.11 Greenhouse gas emissions and climate change

Provide a description of the level of gas and chemical emissions from both natural and anthropogenic activities in the Area, as well as those affecting sea floor and water-column chemistry.

4.12 Summary of the existing physicochemical environment

Summarize key findings and include notes on special considerations for hydrothermal vents, seeps, seamounts and oceanographic fronts or eddies. 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

The description of the site should be divided by depth regime (surface, midwater and benthic, where appropriate), 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, existing [Regional Environmental Management Plan](#), areas of particular environmental interest 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.

5.3 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 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 environment from the surface to a depth of 200 metres, including plankton (phytoplankton and zooplankton), surface/near-surface fish such as tuna, and seabirds and marine mammals. [The description should also evaluate the temporal and spatial variability in distribution and composition.](#)

5.4.2 Midwater

Describe the ~~biological environment~~ [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 invertebrate and fish communities, including infauna 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. Bioturbation should also be covered in this section.

5.4.4 Ecosystem/community-level description

Summarize existing community or ecosystem studies that integrate elements of the above sections. The summary should consider 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 environment

This section should describe the socioeconomic 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

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 fish 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.

6.2.6 Other

List other uses of the project area that are not related to the above (e.g., submarine cables, other mineral exploration, exploitation projects, traditional navigation).

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

List any sites of archaeological or historical significance that are known to occur within the potential area of impact.

6.4 Summary of existing sociocultural environment

Summarize key findings regarding the 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 environment and proposed Mitigation

Provide a detailed description and evaluation of potential impacts of the operation to components of the physical 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 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.

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 impacts caused by the mining operation. This should introduce the major types of effect, such as habitat removal, the creation of sediment plumes, noise and light, etc.

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 effects on air quality from the surface or subsurface operations.

7.3.1 Potential impacts and issues to be addressed

7.3.2 Environmental management measures to mitigate impacts

7.3.3 Residual impacts

7.4 Geological setting

Provide a description of impacts the mining operation may have on the topography-geomorphology of the site or its geological/geophysical composition 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 and sedimentation rates, etc. A regional oceanographic model will be relevant to this section.

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

Noise and light above existing levels.

7.10 Greenhouse gas emissions and climate change

Assessment of gas and chemical emissions from 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

Include project safety and interactions with other vessels.

7.12 Waste management

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

The nature and extent of any interactions between various impacts, where they may have cumulative effects, must be considered on both spatial and temporal scales over the lifetime of the mining operation.

7.13.1 Proposed operations impacts

Cumulative within the scope 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

A table may be a useful summary format to pull together the above elements in a simple visual mode.

8. Assessment of impacts on the biological environment and proposed Mitigation

Provide a detailed description and evaluation of potential impacts of the operation to the biological environment components identified in section 5. 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 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.

(d) The applicable environmental goals and objectives, indicators and threshold values as identified in the applicable Regional Environmental Management Plan.

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 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).

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 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 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.

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, provide a detailed description and evaluation of potential impacts of the operation to the socioeconomic components identified in section 6. This may need to consider effects that could happen during the construction/development (pre-commissioning), 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 nature and extent of any actual or potential impact, including cumulative impacts;

[\(a\)bis The methods used to determine impacts \(including the assumptions of any impact modelling undertaken\);](#)

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

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

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 traffic

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

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.

9.5 Summary of existing sociocultural environment

A table may be a useful summary format. Potential cumulative effects should also be included.

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 of key personnel should be outlined.

11.2 Environmental management system

~~Although a~~ full environmental management system ~~may not~~shall exist at the time the Environmental Impact Statement is submitted. The applicant has to demonstrate that it will be capable of managing all 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. This section should include, at a minimum, the headings set out below.

11.3.1 Mitigation and management

Summarize the actions and commitments that have arisen from the impact minimization and mitigation strategies.

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.

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 of consultation(s) that have taken place with parties identified who have existing interests in the proposed project area and with other relevant stakeholders.

13.1 Consultation methods

Describe the mechanism(s) used to consult with different groups and how this aligns with any relevant consultation obligations.

13.2 Stakeholders

List any relevant stakeholders that have been consulted and explain the process by which stakeholders 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 ~~key~~ the concerns and comments identified by stakeholders and ~~whether or not~~ how these ~~applicant intends to will be~~ addressed ~~these concerns~~, and, if not, describe the reasons for that decision.

13.4 Continuing consultation and disclosure

Outline any further consultation with stakeholders 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.

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

- While the proposals which in my view did not encounter any opposition at the February 2020 session of the Council are reflected in Annex VII, it is noted that the Legal and Technical Commission has developed draft guidelines on the preparation of environmental management and monitoring plans.
- Comments in relation to draft regulation 48 concerning the frequency of the monitoring of the EMMP and the entity responsible for deciding on the performance indicators and objectives are also applicable to this Annex.

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

(a) Prepared in plain-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, 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 area likely to be affected by the proposed activities;

(c) The environmental objectives based on baseline environmental data and standards to be met;

(d) Details of the Environmental Management System and the applicant's environmental policy;

(e) An assessment of the potential Environmental Effects of the proposed activities on the Marine Environment, and any significant changes likely to result;

(f) An assessment of the significance of the potential Environmental Effects, and proposed mitigation measures and management control procedures and responses to minimize 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 adaptive management techniques (process, procedure, response), if appropriate, needed to achieve the desired outcomes;

(h) Details of the proposed monitoring stations across the project area, including the frequency of monitoring and data collection, the spatial and temporal arrangements for such monitoring and the justification for such arrangements;

(i) The location and planned monitoring and management of preservation reference zones and impact reference zones, or other spatial management planning tools;

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

(j) A description of relevant environmental performance Standards and indicators (trigger and threshold points), 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 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, including the frequency of the review of the performance of the Environmental Management and Monitoring Plan;

(m) A description of the technology to be deployed, in accordance with Good Industry Practice and Best Available Techniques;

(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 audit;

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

(q) Details of any practicable restoration of the project area;

(r) A plan for further research and studies; 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 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 all 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 the residual Environmental Effects;

(j) Details of ~~any-the~~ restoration and remediation objectives and activities, ~~where applicable~~;

(k) Information on reporting and management of data and information post-closure;

(l) 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 ~~compensatory~~ 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.

Explanation / comment

- The proposals reflected in paragraph 1(e), (j) and (n) may require explanations from their proponents and further discussion.

Schedule

Use of terms and scope

Explanation / comment

- While time did not permit a discussion of all of the relevant terms included in the Schedule, a suggestion was made to revise the definition of “environmental effect” as shown below.
- In addition, proposals were made to include definitions for the following terms:
 - Damage to the Marine Environment
 - Ecosystem Approach
 - Effective Protection
 - Environmental Impact
 - Environmental Management System
 - Protection
 - Preservation
 - Rehabilitation
 - Regional environmental management plan
 - Restoration
- Delegations are invited to consider the need to define these terms in the Schedule.
- The proponents are invited to provide text for these terms, noting that the only proposed text was for “Environmental Management System” as follows:

“Environmental Management System” means that part of the overall management system applied 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 and environmental performance.

“**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 ~~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.

Enclosure II

Provisions relating to a “Sustainability fund” or “Environmental research and training fund”

1. In ISBA/25/C/WP.1, the environmental compensation fund to be established under Section 5 of Part IV had multiple purposes, including compensation for environmental damage as well as funding of research into environmental techniques, best practices and training. Delegations indicated the preference that the Environmental Compensation Fund to be established under Part IV should focus specifically on compensation for environmental damage as identified in the ITLOS Seabed Disputes Chamber Advisory Opinion of 2011 concerning “Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area”.

2. At the same time, delegations indicated the need to consider in a broader context the need for a separate fund dedicated to environmental research and training and a number of proposals were made to broaden the reach of such a fund to cover, for example, research to develop information for the review of Regional Environmental Management Plans. The earlier text, as well as these additional proposals (see ISBA/26/C/CRP.1), are captured in the present Enclosure, without prejudice to further discussion as to its placement within the regulations or elsewhere and without prejudice to a discussion as to the sources of funding for such a fund.

3. It may be noted that the Finance Committee has also given preliminary consideration to a fund of this general nature in the context of its discussion of the issue of equitable sharing of financial and other economic benefits (See ISBA/26/A/24–ISBA/26/C/39, in particular Section VI).

Purpose of the [Sustainability Fund] [Environmental Research and Training Fund]

The main purposes of the [Sustainability Fund] [Environmental Research and Training Fund] include:

(a) The promotion of research into methods of marine mining engineering and practice by which environmental damage or impairment resulting from Exploitation activities in the Area may be reduced;

(b) Education and training programmes in relation to the protection of the Marine Environment with particular regards to vulnerable communities and relevant Stakeholders;

(c) The funding of research into Best Available Techniques and Best Environmental Practices for the restoration and rehabilitation of the Area;

(d) The restoration and rehabilitation of the Area as well as of the maritime zones of coastal States when technically and economically feasible and supported by Best Available Scientific Evidence; and

(e) The funding of research into the environmental values of the Area, with special focus on the deep-sea benthic habitats, as well as on migratory species which are present in the Area, to provide good quality information for the review of Regional Environmental Management Plans, as well as for the Environmental Impact Assessments that should be based on the best available knowledge.