Annex IV: Full restructuring proposal (marked up highlighted text without deletions)

This additional annex has been provided to show where detail is proposed to be moved from, and in particular, is the repository which retains the detail that we propose to delete from the Regulations and Annexes and move to Standards and Guidelines. This will form the basis for the work this group will undertake in next steps.

Red and black text is as appears in October draft regulations ISBA/28/C/IWH/ENV/CRP.3
Lighter text shows the old version of each regulation, and the alt version IWG Environment facilitator suggests working on is maintained in black text (which represents the regulation this group worked on).

Green - elements for Annexes IIIbis (Scoping Report) and Annex IV (EIS)
Yellow - elements to be moved to Standards (which Standard TBC in future work)
Grey - elements to be moved to Guidelines (which Guideline TBC in future work)

Part IV, Section II 'Environmental Impact Assessment Process', Annex IIIbis 'Scoping Report' and Annex IV 'Environmental Impact Statement'.

Text below is as provided by IWG
Environment facilitator ISBA/28/C/IWG/ENV/CRP.3*
16 October 2023

Section 2
The Environmental Impact Assessment Process

Regulation 47

Environmental Impact Assessment Process

1. An applicant or Contractor shall carry out an Environmental Impact Assessment Process on ~~shall be organized~~ the potential effects on the Marine Environment of the proposed operations and activities.

2. The Environmental Impact Assessment ~~Process~~ shall:

(a) Be based on relevant baseline data that captures temporal, (seasonal and interannual) and spatial variation in accordance with relevant Standards and taking into account relevant Guidelines and the relevant Regional Environmental Management Plan,

(b) Be carried out by ~~qualified~~ competent, independent experts,

(c) Include an environmental risk assessment and a survey of the seabed to identify Underwater Cultural Heritage that takes into consideration the region as a whole taking into account the objectives and measures of the relevant and applicable Regional Environmental Management Plan,

(d) Provide for Stakeholder consultation in accordance with Regulation 93bis, relevant Standards and taking into account the relevant Guidelines,

(e) Be subject to an independent scientific assessment prior to the submission of the proposed Environmental Impact Statement to the Authority,

(f) Take into account the results from test mining~~, if applicable~~ in accordance with Regulation 48bis,

(g) Be conducted in accordance with the terms of reference developed during the scoping process, and

(h) Identify scientific and other knowledge gaps or data uncertainties, and the degree to which these influence the assessment.

3. The Environmental Impact Assessment ~~Process~~ must follow certain procedural steps ~~to having the plan of work assessed~~ and entail the following elements:

(a) A scoping Stage and scoping report in accordance with Regulation 47ter to identify and risk assess the anticipated activities and potential impacts associated with the proposed mining operation which are relevant to the Environmental Impact Assessment.

(b) An Environmental Impact Assessment, documented and reported by an Environmental Impact Statement to describe the impacts on the Marine Environment [~~and Underwater Cultural Heritage~~] and predict the nature and extent of the Environmental Effects of the mining operation including residual impacts, also considering other existing and foreseen mining operations. [This description of the impacts mentioned includes assessing:

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

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

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

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

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

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

(c) The Identification of measures envisaged to monitor, prevent, minimize control, mitigate [~~or, if possible, offset~~] and manage Environmental Effects and risks to as low as reasonably practicable, while within acceptable levels in accordance with environmental Standards, including through the development of an Environmental Management and Monitoring Plan,

(d) The Identification of measures envisaged to remediate, restore, rehabilitate (where possible) the Marine Environment, including through the development and preparation of an Environmental Management and Monitoring Plan,

(e) An analysis of reasonable alternatives to the planned activity ~~under the jurisdiction or control of a State Party~~, including the no-action alternative,

(f) The preparation and submission to the Authority of ~~the~~ an Environmental Impact Statement to document and report the results of the Environmental Impact Assessment in accordance with Regulation 47bis, the applicable Standards and taking into account the relevant Guidelines,

(g) Publication and review by the Commission of the Environmental Impact Statement, and publication of the report and recommendation by the Commission to the Council pursuant to Regulations 11 – 15.

(h) A decision by the Council to approve, or not approve, the proposed activities or proposed modification to the Plan of Work that was the subject of the

Environmental Impact Assessment, including any conditions imposed upon an approval, which decision shall be recorded and published in accordance with Regulation 16, and

(i) A proactive consultation by an applicant or Contractor with Stakeholders at all stages, in accordance with relevant Standards and taking account of Guideline [, which includes:

(i) Providing Stakeholders with access to up-to-date and comprehensive information about the proposed activities and environmental data and impacts,

(ii) Using best efforts to obtain Stakeholder comments on the draft scoping report and draft environmental impact statement for a reasonable period.

(iii) Provide a reasonable opportunity for Stakeholders to raise enquiries and to make known their views,

(iv) Make publicly available Stakeholder comments received during the consultation process, including on the applicant or Contractor's own website, and

(v) Record and address, in the scoping report and Environmental Impact Statement respectively, any substantive and relevant Stakeholder comments received.]

Regulation 47 alt.

Environmental Impact Assessment Process

1. An applicant or Contractor shall carry out an Environmental Impact Assessment on the potential effects on the Marine Environment of the proposed operations and activities.

2. The purpose of an environmental impact assessment under this regulation shall be to predict environmental impacts anticipated from the proposed activities, to enable the Authority to assess the potential adverse Environmental Effects, with the aim to:

(a) Ensure effective protection for the marine environment from harmful effects which may arise from such proposed activities,

(b) Ensure that activities in the Area are carried out with reasonable regard for other activities in the Marine Environment,

(c) Avoid Serious Harm to the Marine Environment arising out of the proposed activities,

(d) Ensure, in accordance with article 142 of the Convention and Regulation 4, that the Sponsoring State and the Contractor, with respect to resource deposits in the Area which lie across limits of national jurisdiction, conduct the environmental impact assessment with due regard to the rights and legitimate interests and duties of affected coastal States by maintaining consultations and a system of prior notification to avoid infringement of their rights and legitimate interests, and

(e) Ensure that the proposed activities are carried out in accordance with the Rules of the Authority, general International Law, including the Convention and the applicable Standard and taking into account the relevant Guidelines as well as, Best Available Scientific Information, Best Environmental Practices, and Best Available Techniques

3. The Environmental Impact Assessment be conducted in accordance with these regulations, relevant Standards, and taking into account relevant Guidelines and the objectives and measures of the applicable Regional Environmental Management Plan, and shall:

(a) Be based on relevant environmental baseline data that captures temporal, (seasonal and interannual) and spatial variation in accordance with relevant Standards and taking into account relevant Guidelines and the objectives and measures of the applicable Regional Environmental Management Plan,

(b) Be carried out by qualified, independent experts,

(b)bis Be based on the best available science and scientific information, and, where available, relevant traditional knowledge of Indigenous Peoples and local communities.

(c) Include an environmental risk assessment and a survey of the seabed to identify Underwater Cultural Heritage, that takes into consideration the region as a whole taking into account the objectives and measures of the relevant and applicable Regional Environmental Management Plan,

(d) Provide for Stakeholder consultation in accordance with Regulation 93bis, relevant Standards and taking into account the relevant Guidelines,

(e) Be subject to an independent scientific assessment prior to the submission of the proposed Environmental Impact Statement to the Authority,

(f) Take into account the results from test mining, if applicable, in accordance with Regulation 48bis,

(g) Be conducted in accordance with the terms of reference developed during scoping in accordance with Regulation 47ter 4(o), and

(h) Identify scientific and other knowledge gaps or data uncertainties, and the degree to which these influence the assessment.

(i) be an iterative process where specific stages are revisited and may be updated in the light of new information or new activity at a later stage

4. The Environmental Impact Assessment process must follow certain procedural steps and entail the following elements:

(a) A scoping Stage and scoping report in accordance with Regulation 47bis to identify and risk assess the anticipated activities and potential impacts associated with the proposed Exploitation which are relevant to the Environmental Impact Assessment.

(b) A stage for assessment of environmental impacts [in accordance with the relevant standard.]including:

(i) An update to the environmental risk assessment, as developed during scoping, describing the likely impacts on the marine environment and Underwater Cultural Heritage and predict the nature and extent of the Environmental Effects of the Exploitation including residual impacts, also considering cumulative impacts, including existing and foreseen mining operations, other activities and natural phenomena.

(ii) An evaluation of significant and harmful effects on the environment and ecosystem services, founded on clear and transparent assessment criteria and a robust evidence base, using best available science and scientific information;

(iii) The presentation and evaluation of potential mitigation measures, and subsequent statement of management and monitoring commitments (together with the EMMP), to mitigate, avoid and minimize effects, and monitor residual impacts;

(c) A stage on the preparation and submission to the Authority of the Environmental Impact Statement to document and report the results of the environmental impact assessment in accordance with Regulation 47bis, the applicable Standards and taking into account the relevant Guidelines,

d) The publication and review by the Commission of the Environmental Impact Statement, and publication of the report and recommendation by the Commission to the Council pursuant to Regulations 11 – 15

(e) A decision by the Council to approve, or not approve, the proposed activities or proposed modification to the Plan of Work that was the subject of the Environmental Impact Assessment, including any conditions imposed upon an approval, which decision shall be recorded and published in accordance with Regulation 16, and

(f) A proactive consultation by an applicant or Contractor with Stakeholders at all stages, in accordance with [DR93bis]. relevant Standards and taking account of Guideline, which includes:

(i) Providing Stakeholders with access to up-to-date and comprehensive information about the proposed activities and environmental data and impacts,

(ii) Using best efforts to obtain Stakeholder comments on the draft scoping report and draft environmental impact statement for a reasonable period.

(iii) Provide a reasonable opportunity for Stakeholders to raise enquiries and to make known their views,

(iv) Make publicly available Stakeholder comments received during the consultation process, including on the applicant or Contractor's own website, and

(v) Record and address, in the scoping report and Environmental Impact Statement respectively, any substantive and relevant Stakeholder comments received

Regulation 47 bis
Environmental Impact Assessment

1. An applicant or Contractor shall carry out an Environmental Impact Assessment of proposed Exploitation in accordance with the Rules of the Authority.

2. The purpose of an Environmental Impact Assessment~~under this regulation~~ shall be to predict environmental impacts anticipated from the proposed activities, to enable the Authority to assess the potential adverse Environmental Effects, with the aim to:

(a) Ensure effective protection for the marine environment from harmful effects which may arise from such proposed activities,

(b) Ensure that activities in the Area are carried out with reasonable regard for other activities in the Marine Environment,

(c) Avoid Serious Harm to the Marine Environment ~~arising out of the proposed activities~~

(d) Ensure, in accordance with article 142 of the Convention and Regulation 4, that the Sponsoring State and the Contractor, with respect to resource deposits in the Area which lie across limits of national jurisdiction, conduct the environmental impact assessment with due regard to the rights and legitimate interests and duties of affected coastal States by maintaining consultations and a system of prior notification to avoid infringement of their rights and legitimate interests, and

(e) Ensure that the proposed activities are carried out in accordance with the Rules of the Authority, ~~general International Law, including~~ the Convention and the applicable Standards and taking into account the applicable Guidelines as well as, Good Industry Practice, Best Available Scientific Information], Best Environmental Practices, and Best Available Techniques

3. A Contractor shall ~~periodically, and in accordance with Regulation 48bis~~ review, and when needed revise, previously performed Environmental Impact Assessments. This include reviewing cumulative effects of activities covered by the assessment whenever a material change in the mining operation has occurred, there is relevant new information or when the review indicates that such changes warrant a revision.

Regulation 47 bis alt. (47 ter)

Environmental Impact Assessment

1. The applicant or Contractor shall, in accordance with the Standards, and taking into

account the Guidelines, undertake an impact assessment, based on the Terms of Reference agreed in the Scoping report, to describe the impacts on the marine environment and Underwater Cultural Heritage and to predict the nature and extent of the Environmental Effects of the mining operation, including residual impacts, on the marine environment and Underwater Cultural Heritage, also considering cumulative impacts, including existing and foreseen mining operations, other activities and natural phenomena. This includes assessing:

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

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

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

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

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

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

2. Undertaking the impact assessment, the applicant or Contractor shall complete:

(a) An analysis of reasonable alternatives remaining post Scoping to the planned activity under the jurisdiction or control of a State Party, including the no-action alternative,

(b) Identification of measures envisaged to mitigate and manage prevent, minimize, control, Environmental Effects and risks to as low as reasonably practicable, while within acceptable levels in accordance with environmental Standards, including through the development and preparation of an Environmental Management and Monitoring Plan

(c) An environmental risk assessment, which adds to the preliminary environmental risk assessment required during scoping by regulation 47bis (4j).

(d) An analysis of the results of the environmental risk assessment, including identification of high priority risks requiring particular focus, including in the Environmental Management and Monitoring Plan.

(e) A proactive consultation by an applicant or Contractor with Stakeholders at all stages, in accordance with relevant Standards and taking account of Guideline, which includes:

(i) Providing Stakeholders with access to up-to-date and comprehensive information about the proposed activities and environmental data and impacts,

(ii) Using best efforts to obtain Stakeholder comments on the draft scoping report and draft environmental impact statement for a reasonable period.

(iii) Provide a reasonable opportunity for Stakeholders to raise enquiries and to make known their views,

(iv) Make publicly available Stakeholder comments received during the engagement ~~consultation~~ process, including on the applicant or Contractor's own website, and

(v) Record and address, in the scoping report and Environmental Impact Statement respectively, any substantive and relevant Stakeholder comments received.

Regulation 47 ter
Environmental Impact Assessment Scoping Report

1. An applicant or Contractor shall prepare and submit to the Secretary-General a scoping report in accordance with this regulation and in the format prescribed in Annex IV.

2. An application or Contractor shall use Environmental Impact Assessment scoping to identify and prioritize the main activities and potential impacts associated with the proposed Exploitation ~~mining operation~~ in order to focus the Environmental Impact Assessment and Environmental Impact Statement on the key environmental issues.

[3. In undertaking the Environmental Impact Assessment scoping process the applicant or Contractor shall:

(a) Review available data and knowledge, and propose additional data to be collected and studies needed to complete an Environmental Impact Statement in accordance with these regulations,

(b) Undertake a preliminary impact analysis and Environmental Risk Assessment which will be updated as the Environmental Impact Assessment proceeds,

(c) Proactively identify Stakeholders in accordance with relevant Standards and taking into account any Guidelines, and

(d) Identify and evaluate feasible alternative means of carrying out the project that will be examined in the environmental impact assessment.]

[4. An Environmental Impact Assessment Scoping Report shall include the following:

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

(b) A description and overview of tentative timelines and deadlines for the proposed Exploration and any associated activities,

(c) A description of what is known about the environmental setting, including Underwater Cultural Heritage, for the project (Contract Area and regional setting),

(d) A description of information for the project that is not yet known but must be, or should be known, including baseline data, and a plan for gaining that information prior to commencement of the Exploitation ~~activities~~,

(e) A summary of existing environmental baseline studies, and, where available, relevant traditional knowledge of indigenous peoples and local communities including a description of methodology for collecting and analyzing the baseline data,

(f) A summary of gaps in environmental baseline including description of methodology for collecting and analyzing additional baseline data to inform the Environmental Impact Assessment.

(g) A description of the technical, spatial and temporal boundaries for the Environmental Impact Assessment,

(h) A list of any assumptions relied upon and identification and quantification of the uncertainties at this stage of the Environmental Impact Assessment, how they are being addressed, and assessment of their implications to the Environmental Risk Assessment findings,

(i) A preliminary impact analysis which categorizes the important issues into high-risk, medium-risk and low-risk for the Environmental Impact Assessment to address and evaluates the need for further information, taking into account the Environmental Risk Assessment,

(j) An Environmental Risk Assessment, which includes:

(i) The identification of potential hazards,

(ii) The environmental consequence for each identified potential impact(s) (the magnitude of the impact(s), the duration of the impacts, and the receptor characteristics, and the likelihood of the consequence occurring.

(iii) A description of the Cumulative Environmental Effects of the project, combined with other authorized, anticipated, or expected activities, actions, or natural phenomena,

(iv) The likelihood of the consequence occurring,

(v) The confidence levels of experts, in order to account for uncertainty and a precautionary approach,

(vi) A description of the methodology employed in the Environmental Risk Assessment,

(k) A description of the results of the Environmental Risk Assessment, including identification of high priority risks for local and regional ecosystem functioning over short and long term, requiring particular focus in the subsequent impact assessment stage of the Environmental Impact Assessment,

(l) A preliminary Stakeholder list that proactively identifies likely Stakeholders, and an indicative schedule and methodology for engagement with key Stakeholders throughout the Environmental Impact Assessment process, taking into account privacy concerns related to to not to publish the publication of personal information of identified stakeholders,

(m) A report of consultations undertaken during scoping.

(n) A consideration of reasonable alternative means of carrying out the project that will be examined in detail in the Environmental Impact Assessment, including a no-action alternative, and any others that have been not carried forward for further analysis at this stage, and the reasons for that selection,

(o) A draft Terms of Reference for the Environmental Impact Assessment, which identifies the activities and studies planned for the Environmental Impact Assessment, and any additional baseline data that will be required,

(p) An explanation for how the activities and studies planned for the Environmental Impact Assessment will be sufficient to determine likely environmental impacts, and to propose Mitigation and management strategies and monitoring methodology,

(q) A brief description of the socioeconomic and sociocultural aspects of the project, including sociocultural uses of the project area (e.g., traditional navigation routes, migratory paths of culturally significant marine species, sacred sites and waters associated with ritual or ceremonial activities of Indigenous Peoples and local communities),

(r) A note describing and explaining any divergence from relevant ISA Guidelines.]

5. Upon receipt of a scoping report from an applicant or Contractor, the Secretary-General shall:

(a) Make the report available on the Authority's website, with an invitation for members of the Authority and Stakeholders to submit comments in writing within a period of [90 days];

(b) Following the close of the comment period under paragraph (1)(a), provide any comments received to the applicant or Contractor [within 2 weeks] [Russia] for their response within [60 Days];

(c) At the expiry of the timeframe specified in paragraph (1) (b), provide the Commission with the scoping report, any stakeholder comments received, and any responses to those comments from the applicant or Contractor.

6. The Commission shall consider a scoping report submitted in accordance with this regulation, and any comments and responses received, in accordance with any ~~relevant~~applicable Standards and taking into account Guidelines. Based on this review, the Commission shall, within 60 days following the receipt of the report and any comments or responses under paragraph (5)(c), approve a scoping report, disapprove it or make recommendations to the applicant or Contractor regarding the proposed Environmental Impact Assessment, accompanied by a detailed rationale.

7. The Commission's recommendations under the previous paragraph [paragraph 6] may include recommendation:

(a) To revise the environmental risk assessment or other aspects of the scoping report based on different methodology or inputs,

(b) To amend the proposed terms of reference for the Environmental Impact Assessment, or

(c) To re-submit a revised scoping report for further Stakeholder consultation and Commission review, in the case where uptake of any of the Commission's recommendations are likely to lead to a Material Change in the Scoping Report.

8. The applicant or Contractor shall take into account the Commission's recommendations under this regulation, [or any recommendations or scoping reports concluded prior to the adoption of these Regulations and in accordance

with an Exploration Contract], [and agree to the final contents of the Scoping Report with the Commission] before proceeding with an Environmental Impact Assessment process based on an adaptative management criteria to address uncertainty. Furthermore, the applicant or Contractor shall agree the final contents of the Scoping Report with the Commission either under these Regulations or pursuant to other applicable Regulations adopted by the Authority or in accordance with an Exploration Contract.

Regulation 47 ter (bis) alt.
Scoping Report

1. The applicant or Contractor shall prepare and submit to the Secretary-General a scoping report in accordance with this regulation and in the format prescribed in Annex IV.

2. An applicant or Contractor shall use environmental impact assessment scoping to identify and prioritize the main activities and potential impacts associated with the proposed mining operation, in order to focus the Environmental Impact Assessment and Environmental Impact Statement on the key environmental issues.

3. In undertaking the environmental impact assessment scoping process, the applicant or Contractor shall:

(a) Review available data and knowledge, and propose additional data to be collected and studies needed to complete an Environmental Impact Statement in accordance with these regulations,

(b) Undertake a preliminary impact analysis and environmental risk assessment which will be updated as the environmental impact assessment proceeds,

(c) Proactively identify Stakeholders in accordance with relevant Standards and taking into account any relevant Guidelines,

(d) Identify and evaluate feasible alternative means of carrying out the project that will be examined in the environmental impact assessment. and

(e) Use the best available science and scientific information and, where available, relevant traditional knowledge of Indigenous Peoples and local communities.

4. An environmental Impact Assessment Scoping Report shall include the following:

(a) A brief description of the proposed Exploitation activities and any ancillary features

(b) A description and overview of tentative timelines and deadlines for the proposed environmental baseline studies and Environmental Impact Assessment [conducted under the Exploration contract and any associated activities,

(c) A description of what is known about the environmental setting, including Underwater Cultural Heritage, for the project (Contract Area and regional setting),

(d) A description of data gaps, potential data gaps or data with a large uncertainty associated with it for the project,

(e) A summary of existing environmental baseline studies, and, where available, relevant traditional knowledge of indigenous peoples and local communities

(f) A description of the technical, spatial and temporal boundaries for the Environmental Impact Assessment,

(g) A brief description of the socioeconomic and sociocultural aspects of the project

(h) Any assumptions and how they are being addressed, and assessment of their implications to the environmental risk assessment findings,

(i) A preliminary impact analysis which categorizes the important issues into high-risk, medium-risk and low-risk for the Environmental Impact Assessment to address and evaluates the need for further information, taking into account the environmental risk assessment,

(j) A preliminary environmental risk assessment,

(k) A description of the results of the environmental risk assessment, including identification of high priority risks for local and regional ecosystem functioning over short and long term, requiring particular focus in the subsequent impact assessment phase of the Environmental Impact Assessment,

(l) A preliminary Stakeholder list that proactively identifies likely Stakeholders, and an indicative schedule and methodology for engagement with key Stakeholders throughout the Environmental Impact Assessment process,

(m) A report of consultations undertaken during scoping,

(n) A consideration of reasonable alternative means of carrying out the project that will be examined in detail in the Environmental Impact Assessment, including a no-action alternative, and any others that have been not carried forward for further analysis at this stage, and the reasons for that selection,

(o) A draft Terms of Reference for the Environmental Impact Assessment, which identifies the activities and studies planned for the Environmental Impact Assessment, and any additional baseline data that will be required,

(p) An explanation for how the activities and studies planned for the Environmental Impact Assessment will be sufficient to determine likely environmental impacts, and to propose Mitigation and management strategies and monitoring methodology,

(q) A note describing and explaining any divergence from ~~relevant~~ ISA Guidelines.

5. Upon receipt of a scoping report from an applicant or Contractor, the Secretary General shall:

(a) Make the report available on the Authority's website, with an invitation for members of the Authority and Stakeholders to submit comments in writing within a period of 90 days;

(b) Following the close of the comment period under paragraph (1)(a), provide any comments received to the applicant or Contractor [within 2 weeks] [Russia] for their response within [60 Days];

(c) At the expiry of the timeframe specified in paragraph (1) (b), provide the Commission with the scoping report, any stakeholder comments received, and any responses to those comments from the applicant or Contractor.

6. The Commission shall consider a scoping report submitted in accordance with this regulation, and any comments and responses received, in accordance with any relevant Standards and taking into account Guidelines. Based on this review, the Commission shall approve a scoping report, disapprove it or make recommendations to the applicant or Contractor regarding the proposed environmental impact assessment, accompanied by a detailed rationale.

7. The Commission's recommendations under the previous paragraph [paragraph 6] may include recommendation:

(a) To revise the environmental risk assessment or other aspects of the scoping report based on different methodology or inputs,

(b) To amend the proposed terms of reference for the environmental impact assessment, or

(c) To re-submit a revised scoping report for further Stakeholder consultation and Commission review, in the case where uptake of any of the Commission's recommendations are likely to lead to a Material Change in the Scoping Report.

8. The applicant or Contractor shall, before proceeding with an environmental impact assessment process:

(i) take full account of the Commission's recommendations under this regulation,

(ii) agree the final contents of the proposed terms of reference in the Scoping Report with the Commission.

Regulation 48
Environmental Impact Statement

1. An applicant or Contractor shall prepare an Environmental Impact Statement in accordance with this regulation, the applicable Standards and take account of the applicable Guidelines. Such an Environmental Impact Statement shall be considered by the Authority in accordance with Part II or Regulation 57 and is required for an application for a plan of work pursuant to Regulation 7(3)(d).

2. The purpose of the Environmental Impact Statement is to document and report the results of the Environmental Impact Assessment carried out in accordance with Regulations 47 and 47bis and to provide the International Seabed Authority, its member States and other stakeholders with unambiguous documentation of the potential Environmental Effects based on the Best Available Scientific Information, Best Environmental Practices, and Best Available Techniques, and Good Industry Practice on which the Authority can base its decision, and any subsequent approval that may be granted.

3. The Environmental Impact Statement shall be in a form prescribed by the Authority and must:

(a) Include a prior Environmental Risk Assessment prepared during the environmental impact assessment,

(b) Describe the results of the Environmental Impact Assessment including of the methodology used and evaluation of the identified environmental impacts,

(c) Demonstrate that the proposed activities and mining operations are in accordance with all [relevant] environmental Standards and the Authority's environmental objectives and take into account the requirements of the [~~relevant~~ Regional Environmental Management Plan, environmental baseline data as well as any additional objectives as set by the Contractor and any results of the performed test mining study, where applicable,

(d) Identify substantive and relevant comments received through public consultation on the Environmental Impact Assessment and explain how each comment has been incorporated or otherwise addressed,

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

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

(g) [Be peer reviewed by competent independent experts, before submission and include a] [D]escription of the experts, their qualifications, and the results of their review.

4. The Environmental Impact Statement should, but not limited to, entail the following elements, ~~which are~~ described in greater detail in [Annex IV/ Standard]: the Guidelines:

(a) An executive summary to provide an overview of the project and a summary of the content of the Environmental Impact Statement for non-technical readers, including a description of the proposed project, its objectives, alternatives analysed, anticipated benefits, anticipated impacts and measures to minimize these, consultation efforts and linkage to the Environmental Monitoring and Management Plan and the Closure Plan,

(b) An introductory section containing information on the project background and history, project viability and proponents as well as a description of the report, including its scope and structure and overview of the stakeholder consultation process and consultations,

(c) An outline of applicable national and international legislation, procedures and policies, and other applicable standards, principles and guidelines, for example the Convention including the 1994 Agreement [relating, relevant rules from the International maritime Organization and International Law in general],

(d) A description of the proposed project including information on location, associated activities, required infrastructure, mineral resources (type, size, shape, tonnage, volume, grade), technologies and (mining-)equipment to be used, project scale overview (spatial, temporal, operational depth), transport and handling of materials, on-site processing, commissioning, construction and operating standards, design codes, health and safety aspects, workforce, decommissioning and closure, other considered alternatives and a timetable for the entire operation,

(e) A description of methodologies for describing collecting and analyzing baseline and 'test mining' data and assessing the potential environmental impact and Environmental Effects from the proposed operations and alternatives considered. ~~Marine Environment, the Environmental Effects of the proposed project and [collecting baseline data],~~

(f) A description of the existing physiochemical and geological oceanography, including information on prior research/Exploration studies, meteorology, seabed and sub-seabed characteristics, natural hazards, noise, light and greenhouse gas emissions,

(g) A description of the existing biological environment, including information on prior research/Exploration studies, on biological properties and communities and ecosystem that could be impacted by proposed activities in the area, also taking into consideration studies and research on this,

(h) A description of the existing human activities socioeconomic and sociocultural environment in the area, containing information on fisheries, marine traffic, submarine cables, tourism, ongoing scientific research, sociocultural use, and sites of cultural or historical significance,

(i) An assessment of environmental impacts and effects on the physical, chemical and geological environment and proposed Mitigation, including description of the impact source, potential impact categories and pathways, ~~as well as~~ receptors and impacts, any potential Cumulative Environmental Effects, unavoidable residual impacts and effects that may remain, and the extent to which

any potential impacts and effects may occur in areas under a State's national jurisdiction,

(j) An assessment of environmental impacts and Environmental Effects on the biological environment and proposed ~~Mitigation~~,including description of ~~key~~ the impact source, potential impact categories and pathways, receptors and impacts~~ and cumulative operation effects~~, any potential Cumulative Environmental Effects, unavoidable residual impacts and effects that may remain, and the extent to which any potential impacts and effects may occur in areas under a State's national jurisdiction,

(k) An assessment of impacts on the socioeconomic and sociocultural environment and proposed Mitigation, including description of potential impact categories and pathways and impact identification of existing use (fisheries, marine traffic, submarine cables, tourism, ongoing scientific research, sociocultural use, area-based management tools), sites of cultural or historical significance, ecosystem services ~~gender~~ impact on gender and residual impacts,

(l) A[~~n outline~~] description of hazards arising from natural, accidental and discharge events, for example related to extreme weather, natural hazards, accidental events, maritime safety, emergency response, handling waste and ~~blast~~ ballast water, and the measures taken to prevent or respond to such events and conduct an assessment of residual impacts,

(m) A summary of key issues in the Environmental Impact Statement and how they will be addressed in the Environmental Management, and Monitoring Plan and Closure Plan,

(n) A description of responsible product stewardship related to the intended use of the mineral-bearing ore once it leaves the Area, including how the Contractor will minimize effects on health, safety, environmental as well as socioeconomic and sociocultural impacts,

(o) A summary of consultations that have taken place with Stakeholders, and how their comments have been addressed in the environmental impact assessment~~ and stakeholder engagement and methods~~,

(p) A ~~summary~~ description of the study team outlining the people involved in the environmental impact assessment studies and in writing the Environmental Impact Statement,

(q) A list of glossaries, abbreviations, references, and appendices.

5. The Environmental Impact Statement of every ~~project~~ Plan of Work, including any revisions, should be available on the official website of the International Seabed Authority in the interests of transparency. ~~of the whole process~~

Regulation 48 alt.
Environmental Impact Statement

1. An applicant or Contractor shall prepare an Environmental Impact Statement in accordance with this regulation. Such an Environmental Impact Statement shall be considered by the Authority in accordance with Part II or Regulation 57 and is required for an application for a plan of work pursuant to Regulation 7(3)(d).

2. The Environmental Impact Statement shall document and report the results of the Environmental Impact Assessment carried out in accordance with Regulation 47ter and shall provide the International Seabed Authority, its member States and other Stakeholders with unambiguous documentation of the potential Environmental Effects based on the Best Available Scientific Information, Best Environmental Practices, and Best Available Techniques, and Good Industry

Practice on which the Authority can base its decision, and any subsequent approval that may be granted.

3. The Environmental Impact Statement shall be in a form prescribed by the Authority in the relevant Standard and in accordance with the relevant Guideline:

(a) Detail the results of the environmental impact assessment including the methodology used, and evaluation of the identified environmental impacts

(b) Demonstrate that the proposed Exploitation is in accordance with all relevant environmental Standards and the Authority's environmental objectives and in accordance with the requirements of the relevant Regional Environmental Management Plan, environmental baseline data as well as any additional objectives as set by the Contractor and any results of the performed test mining study, where applicable,

(c) Identify substantive comments received through public consultation on the environmental impact assessment and explain how each comment has been incorporated or otherwise addressed,

(d) Be prepared in clear and non-technical language and in an official language of the Authority together with an English-language version, where applicable,

(e) Be peer reviewed by competent independent experts, before submission,

4. The Environmental Impact Statement shall, but not limited to, entail the following elements, which are described in greater detail in [Annex IV/ Standard]:

(a) An executive summary to provide an overview of the project and a summary of the content of the Environmental Impact Statement for non-technical readers,

(b) A description of the proposed project

(c) Methodologies

(d) A description of the existing oceanographic, physiochemical and geological environment,

(e) A description of the existing biological environment,

(f) A description of the socioeconomic and sociocultural environment. including existing human activities.

(g) An assessment of impacts on the physical, chemical and geological environment and proposed Mitigation,

(h) An assessment of impacts and Environmental Effects on the biological environment and proposed Mitigation,

(i) An assessment of impacts on the socioeconomic and sociocultural environment and proposed Mitigation,

(j) An outline of hazards arising from natural, accidental and discharge events, for example related to extreme weather, natural hazards, accidental events, maritime safety, emergency response,

(k) An outline of waste management,

(l) A summary of key issues in the Environmental Impact Statement and how they will be addressed in the Environmental Management, and Monitoring Plan and Closure Plan,

(m) A description of responsible product stewardship related to the intended use of the mineral-bearing ore once it leaves the Area, including how the

Contractor will minimize effects on health, safety, environmental as well as socioeconomic and sociocultural impacts,

(n) A summary of consultation and stakeholder engagement and methods.

5. The Environmental Impact Statement of every project, including any revisions, should be available on the official website of the International Seabed Authority in the interests of transparency of the whole process in accordance with regulation 92.

Regulation 48 bis
New Environmental Impact Assessment and Revised Environmental Impact Statement

1. A Contractor shall conduct a new Environmental Impact Assessment and submit a revised Environmental Impact Statement in accordance with regulation 57 when:

(a) A Material Change to an existing Plan of Work is proposed which is likely to ~~increase the~~ cause adverse Environmental Effects ~~caused by the activities, that are unable to be mitigated by the measures identified in the previous Environmental Impact Assessment,~~

(b) A Material Change in the Marine Environment is detected through monitoring or other data sources which would call for a new or reviewed Environmental Impact Statement,

(c) ~~An activity~~ The Material Change described in the Plan of Work is predicted to exceed the impact thresholds set out in the Standards on environmental thresholds, as well as the impacts identified in the previous Environmental Impact Assessment;

(d) A relevant Standard, ~~and this~~ activity, ~~and~~ or predicted impact has not already been addressed by an Environmental Impact Statement,

(e) Otherwise deemed necessary by the Commission, in accordance with applicable Standards and taking into account Guidelines, e.g. when changes to an existing Plan of Work is proposed other than the type described under sub-paragraph (1)(a) or [when the Commission considers that the Environmental Impact Statement from the Revised Environmental Impact Assessment is not appropriate under Regulation 7 para. (5), or] [if relevant Standards and/or thresholds have been substantially revised, or] when the Commission requests an applicant to ~~change~~ amend its proposed Plan of Work during the application stage under Regulation 14, or

(f) When the Material Change of the proposed Plan of Work require changes in the Environmental Management and Monitoring Plan, due to the impacts identified in the revised Environmental Impact Assessment;

Regulation 48 bis alt.

New Environmental Impact Assessment and Revised additional Environmental Impact Statement

1. A Contractor shall conduct a new Environmental Impact Assessment in accordance with regulation 47ter and submit an additional revised Environmental Impact Statement when:

(a) A Material Change to an existing Plan of Work is proposed which is likely to increase the adverse Environmental Effects caused by the activities,

(b) A Material Change in the Marine Environment is detected through monitoring or other data sources which would call for a new or reviewed Environmental Impact Statement,

(c) An activity described in the Plan of Work is predicted to exceed the impact thresholds set out in the Standards on environmental thresholds,

(d) A relevant Standard, activity or predicted impact has not already been addressed by an Environmental Impact Statement, or

(e) Otherwise deemed necessary by the Commission or Council, in accordance with applicable Standards and taking into account Guidelines.

Annex IV

Environmental Impact Statement

1. Preparation of an Environmental Impact Statement

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

(a) Be prepared in clear language and in an official language of the Authority together with an English-language version, where applicable; (b) Provide information [based on data from,] [as a general rule, a minimum of 15 years of] [monitoring], in accordance with the ~~relevant~~ regulations, and taking into account the applicable regional environmental management plan,.[~~[requirements of regional environmental management plans,] and]~~Standards and ~~[[taking into account the relevant]~~] Guidelines~~ and the relevant applicable regional environmental management plan~~, ~~and taking into account the relevant applicable regional environmental management plan]~~, corresponding to the scale and potential magnitude of the activities, to assess the likely Environmental Effects of the proposed activities. Such effects shall be discussed in proportion to their significance. Where an applicant or Contractor considers an Environmental Effect to be of no significance, there should be sufficient information to substantiate such conclusion, or a brief discussion as to why further research is not warranted; and

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

[(d) Be peer reviewed by competent independent experts, before submission and include a description of the experts, their qualifications, and the results of their review.]

2. Template for Environmental Impact Statement

~~[The [required] recommended format and contents 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 based on the Best Available Scientific Evidence, Best Environmental Practices, and Best Available Techniques, and Good Industry Practice on which the Authority can base its decision, and any subsequent approval that may be granted. Further detail for each section is provided following the overview.]~~

The required contents and 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 based on the Best Available Scientific Evidence, Best Environmental Practices, and Best Available Techniques, and Good Industry Practice on which the Authority can base its

decision, and any subsequent approval that may be granted. Further detail for each section is provided following the overview.

This document is a template and does not provide details of methodology or thresholds that may be resource- and site-specific. These methodologies and thresholds may also change over time in according to, for example, development of new technologies, ~~or~~ new scientific data or new knowledge, and will be developed as Standards and Guidelines to support the regulations.

Contents

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 project, its objectives, if any, a description of alternatives analysed, and a justification of the alternative chosen;

Alt (a)bis A description of alternatives analyzed;

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

(c) A description of anticipated and cumulative, [risks and] impacts of the activity, as assessed by experts, (. including, but not limited to, oceanographic, geological, biological, socioeconomic and sociocultural) including the expected spatial extent and duration of impacts and cumulative impacts in relation to the identified baselines, and the expected recovery rates of the system to its original state;

(d) Measures to [minimize and] [~~[to]~~]mitigate anticipated and cumulative environmental impacts [support recovery of the marine environment from impacts,] and a description of any anticipated and cumulative residual impacts, that may occur despite Mitigation, noting how the mitigation hierarchy is being employed in assessing impacts;

[[Alt (d bis) A description of any residual impacts;]]

[[Alt (d ter) Expected recovery rate of the marine environment impacted;]]

(e) Linkages with development of the Environmental Monitoring and Management Plan and the Closure Plan; [and]

[~~[(e)bis Conformity with the Authority's global environmental policy and strategy and the applicable regional environmental management plan; and]~~]

(f) Consultation undertaken with other parties and Stakeholders.

1. Introduction

The purpose of the Introduction section is to set the scene for the Environmental Impact Assessment. This section should contain enough detail for a reader to form an overall impression of the proposed project and how it has developed and understand how the Environmental Impact Assessment is structured. As this section mainly provides a 'roadmap' to more detailed material in the Environmental Impact Assessment, it may be relatively short.

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.

Provide understanding of the policy on alternatives being followed by the applicant. The determination of project viability may include a summary of feasibility investigations related to geophysical, engineering, geotechnical, oceanographic, biological and other components of project operations.

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 depth zones. and any component/ system testing conducted to date. The time, location, and parties involved in exploration work should be included. For the component/ system testing, provide a brief description of activities here. If applicable, include any report(s) related to results of component/system testing and Test Mining studies 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 The proponent's technological and environmental expertise, capacity and financial resources should be outlined, and the proponent's environmental record for this work and any previous comparable works should be summarised as well as how they intend to support commitments made elsewhere in the application.

1.5 This report

This section should constitute a guide for users of the Environmental Impact Statement on how to effectively use the information contained in the Environmental Impact Statement.

1.5.1 Scope

Provide detail as to what is and is not included, and which risks have been prioritised and which received less emphasis, in this Environmental Impact Statement, based on the Scoping Report and previous feedback from the Authority and Stakeholders. Link to other supporting information.

1.5.2 Report structure

This subsection should refer to the prescribed structure of the template but should also indicate where to find information that is not obvious from the table of contents, for example in cases where the Environmental Impact Statement relates to a larger project covering several Mining Areas within the Contract Area or for an Environmental Impact Statement that contains a large volume of information (especially multiple volumes). Authorship should be provided for chapters.

1.5.3 Consultation overview.

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

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 national and international legislation policies and procedures,

Outline the national and international legislation, procedures and policies, for example those adopted in accordance with article 209 of the Convention to prevent, reduce and control pollution of the marine environment[, including the coastline,] from activities in the Area, as well as applicable rules, regulations, procedures, standards and Guidelines and the Regional Environmental Management Plan of the Authority, that is applicable to the proposed mining

operation in the Area, including any guidance provided for implementation and how the proposed operation will comply with them.

2.2 Other applicable /national legislation, policies and regulations

Outline any other legislation, policies, regulations or Sustainable Development Bills 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, flag State laws, climate [~~change policies~~)]. 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 the international and regional agreements applicable to the operation, (whether directly or via incorporation into domestic laws cited in section 2.2 above), such as relevant conventions, including annexes and Guidelines, of the International Maritime Organization related to protection of the environment, biodiversity and safety. These include the International Convention for the Safety of Life at Sea (SOLAS), the International Convention for the Prevention of Pollution from Ships (MARPOL), the Ballast Water Management Convention (BWMC), the International Convention on the Control of Harmful Anti-fouling Systems on Ships and the 1996 Protocol thereof and the Convention on Biological Diversity and the Convention on Migratory Species of Wild Animals and the 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 (BBNJ); and describe how the proposed operation will comply with them.

2.4 Other applicable standards, principles and Guidelines

Discuss applicable standards and Guidelines, including those mandated by the source(s) of funding for the operations, that will be adhered to or aligned with throughout the operation, such as those of the International Seabed Authority not already included in section 2.1, 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.

2.5 National Processes related to [S~~s~~]ponsoring State permits

Describe any national processes followed and permits received from the S~~s~~ponsoring State in relation to the environmental impact assessment.

2.6 Ecologically and/or Biologically Significant Areas (EBSAs) and Area-based management tools

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

3. Description of the proposed project

Provide details of the proposed project and the area of influence of the project or impact area, 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 this section should provide a

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), showing the relevant sites proposed as Contract Area and Mining Area and any other features that can be usefully marked upon the map at the time of application, including the locations of impact reference zones and preservation reference zones as well as locations of other nearby contract areas or known seabed infrastructure. Provide general location of the project on a regional map.

[The map should indicate Areas of Particular Environmental Interest, Sites[/Areas] in Need of Protection, or other sites designated for particular status under the rules, regulations, procedures, Standards, or Regional Environmental Management Plans of the Authority. This may also include sites of other competent authorities, as well as information on any other known conservation or spatial measures and other uses of the marine environment (e.g. submarine cables and pipelines, long-standing scientific research sites and established fishing areas) in the vicinity of the project area. The map shall also identify the nearest coastal States and States that may be affected by mining activities, and any adjacent ISA contract sites. This map may be the same as the map supplied in Annex 1 Section II.

3.1.2 Associated activities

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

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, size, shape, tonnage, volume ~~and~~ grade and distribution pattern [Italy] of the mineral deposits. Estimates of the inferred indicated resource should be provided on the basis of the international CRIRSCO reporting template or national accepted codes (NI 43-101, JORC Code) and the official ISA mineral classification (PMN, PMS and CFC).

3.3 Project components

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

3.3.1 Project scale

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

3.3.2 Mining Equipment

Describe any equipment expected to qualify as Best Available Technology for mining and support operations (e.g., mining vessels/platforms, supply vessels, barges), including the anticipated frequency of vessel movements for these activities. Also, including a description of any specific technologies developed to reduce impacts should be included.

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

3.3.3 Transport/materials handling

Provide a description of all methods to be used to transport the mineral-bearing ore, including from the sea floor to the surface in relation to Best Environmental Practice, and any methods related to the trans-shipment of the mineral-bearing ore, including transfers at sea. Describe the energy requirements of the requisite machinery. Also, a description of any specific technologies developed to reduce impacts should be included[, highlighting at which levels, in the water column (generation of plume at the seafloor, turbidity in the water column, addition of bottom sediments to the surface waters) resulting impacts to the marine ecosystem, may be mitigated during the different phases for collection, separation, lifting, transportation, processing, and discharge of effluents.]

3.3.4 On-site processing

Provide a [detailed] description of the [plan for] processing of the mineralized material that will occur within or above the Area in relation to Best Environmental Practice, including water column activities (such as riser pipe transfer) and 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 and separation of the mineralized material at the surface. This section should also cover any disposal of seawater/fines [and include the spatial layout of the activities over time which will provide a comprehensive map of the disturbance area from which to assess harm to the Marine Environment].

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

3.4 Commissioning

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

3.5 Construction and operating standards

Outline the design codes or certification standards to which the equipment will be or has been built, as well as the operating standards that will be applied to mining operations, including those for Best Available Technology and Best Environmental Practice issued by the ISA [International Seabed Authority]. 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 or in the event of an emergency, including the decommissioning and removal of offshore infrastructure or the temporary suspension of mining activities, under a Closure Plan.

3.7 Other alternatives considered

Provide an account of alternative options that were rigorously explored and objectively evaluated, including a no-action alternative, that were considered and rejected in favour of the current proposal with justification as to why the alternatives were rejected. Aspects should include the selection of the mine site, mine production scenarios, equipment design and engineering decisions, including technologies selected to reduce the direct impact of mining activities, environmental impacts, financial feasibility, transport and materials handling, shipboard processing and stakeholder support. A no mining scenario must be included.

3.7bis Environmental management measures to mitigate impacts

Provide a summary description of reasonable measures taken to mitigate adverse impacts to the physical, chemical, geological, biological[, ~~and~~]socioeconomic[, and sociocultural] environment.

3.8 Development timetable (detailed schedule)

Provide a description of the overall timetable, from initiation and equipment construction the implementation of the mining programme, through 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;

(a) bis Timing of expected regulatory approvals

(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.

Whether the availability of funds is subject to approvals should be noted on the timetable.

Section 3bis1 Summary of Scoping results, including of the risk assessment process [

Provide a brief overview of the results of the scoping exercise including with regard to the sufficiency of the scientific baseline data collected during exploration to support a robust Environmental Impact Assessment.

Section 3bis [2] Methodology for Description of the Marine Environment and Assessment of Impacts and Environmental Effects

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

3bis.1 Studies completed

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

3bis.2 Methodology for Collecting Baseline Data

For each of the baseline descriptions of the Marine Environment in sections 4 and 5 and socioeconomic [and sociocultural] environment in section 6, describe the methodology for collecting and analysing baseline data, including:

1. spatial and temporal extent of sampling;
2. spatial and temporal frequency of sampling;
3. gear used for sampling and any modifications or calibrations conducted to the gear;
4. results of power analysis;
5. limitations of sampling and how this may impact certainty of impact assessments; and
6. any cooperation with other research programmes in the Area, such as with the ISA, States, other Contractors, or non-governmental organizations.

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

Assess the sufficiency of baseline data collected and compiled in view of the aim to establish mining-related environmental change in relation to natural variability.

Raw baseline data and computer code[, with sufficient metadata and code comments,] used to analyse and provide a description of the Marine Environment shall be included in the annexures of the Environmental Impact Statement or, if the data and/or code ha~~s~~ve been previously submitted to the Authority, the applicant may provide a link to the Authority's database where the data and/or code [~~is~~][are] stored or other location where such information has been made available online.

3bis.3 Methodology for Summarizing Baseline Data

Provide a description of the methodology used to summarize baseline data collected. This shall include:

a description and justification of transformations performed to the data and analyses used to summarize the data;

a list of program(s) used to analyze results;

a list of methods to determine species identification and life history; and,

any limitations associated with the results of the analysis.

3bis.4 Methodology for Assessments of potential environmental impacts and Environmental Effects to the Marine Environment

For each assessment of potential environmental impacts and Environmental Effects in sections 7 and 8 and socioeconomic [and sociocultural] environment in section 9, describe the methodology used to assess impacts and Environmental Effects from proposed operations and alternatives considered in section 3.7. in line with the applicable regulations and standards and taking into account the applicable guidelines.

Data, predictive models, and computer code used to analyse and provide a description of the Marine Environment shall be included in the annexures to the Environmental Impact Statement or, if the data, model, and/or code has been previously submitted to the Authority, [~~the applicant may provide a link to the Authority's database where the data and/or code is stored~~] other location where such information has been made available online. Each description of methodology used to assess impacts shall include:

a) a description and justification of analyses and models used to summarize the data; and

b) any limitations associated with the analysis or results.

In accordance with Regulation 47quater, where predictive models have been used these shall be reviewed by competent independent experts and the relevant review reports shall be provided as annexures to the Environmental Impact Statement

4. Description of the existing physiochemical and geological oceanography

Give a detailed account of knowledge of the oceanographic_(physical, chemical and geological) conditions at each mining the sitestie and impact area as well as Reference Zones, which should include information from a thorough literature review as well as from on-site studies in accordance with the Regulations and applicable Standard and taking into account the relevant Guidelines to be specified. The Guidelines on baseline data collection as updated from time to time by the Commission, 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 oceanographic conditions, including physical, chemical and geological oceanographic setting, including its spatial and temporal variability and temporal trends [conditions], against which impacts will be measured and assessed. The detail in this section is based on the prior environmental risk assessment carried out in line with the respective standard and guideline, that will have identified the main impacts, and thus the priority elements that need to be [~~measured~~] considered and assessed 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 baseline environmental conditions of the site and impact area, in accordance with the Standard and Guideline on baseline data collection, including but not limited to the physical, chemical and geological oceanographic setting [~~as well as known or suspected Underwater Cultural~~

~~Heritage~~] within a broader regional context and [taking into account] [~~in accordance with~~] the applicable Regional Environmental Management Plan. This should be a brief section that includes a map. ~~[While intangible cultural heritage may not lend itself to a map, known intangible human connections to the area should also be acknowledged.]~~ A more detailed site-specific and impact area description will be provided in accordance with the sections below.

4.3 Studies completed

Describe any prior research/Exploration studies (including methods used for completing the studies based on Best Available Science using Best Available [Germany] Techniques~~, [including surveys of the seabed for Underwater Cultural Heritage~~ that could provide relevant information for this Environmental Impact Statement. This research should be detailed in the appendices or in reports attached to the appendices.

4.4 Meteorology and air quality

Provide a general [~~overview~~] [Characterization of the local meteorology (e.g., wind directions and speeds, seasonal [and interannual] patterns and variability). Provide description of air quality, including chemical characteristics. This section may be most relevant to surface operations and the general risk assessment.

4.5 Geological properties and habitat classification

Provide a baseline description of the nature and extent of the mineral resource and bedrock within a broader geological context. Describe the geological petrographic and geomorphological setting of the mining sites, the impact areas, and the designated preservation reference zones (PRZs) including sea floor mapping (bathymetry and backscatter), high-resolution sub-bottom profiling, and sedimentation rates, and refer to submarine features such as hydrothermal vents, seamounts abyssal hills and canyons as appropriate.

Provide habitat classification using an appropriate system as prescribed in the relevant Standard [and taking into consideration the] [~~or~~] Regional Environmental Management Plan.

4.6 Oceanographic setting

Provide a description of oceanographic aspects including but not limited to thermohaline conditions, optical properties and turbidity, [surface, mid-water and bottom] currents regime, tides, waves, turbulence, and oceanographic fronts, eddies and climate change projections, including spatial variation at and above the site. Seasonal and longer-term variability is an important element. Detail is required on the regional setting, as well as the specific mining site and impact area, and the designated Preservation Reference Zones (PRZs), and should include changes in physical conditions and processes according to depth and horizontal distance from the proposed mine site to boundaries of the Impact Area. [For activities conducted in areas of seamount chains, hydrothermal vent fields, trenches and canyons or other areas with complex bathymetry, oceanographic currents will be influence by topographic forcing and will require a more detailed oceanographic assessment, including targeted sampling programs, to determine the impact area.] Climate change projections should also be included.

4.7 Chemical oceanographic setting

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

Provide a description of chemical oceanographic properties at the mining sites the impact areas, and the designated Preservation Reference Zones (PRZs),

throughout the water column and horizontally from the proposed mine site, that includes nutrients, particle loads, temperature, oxygen, salinity, density, particulate and dissolved organic matter, pH, chemical composition, including[, but not limited to] concentrations of trace metals, dissolved gas profiles, depth range and characteristics of oxygen minimum zone, redox regimes, carbonate saturation, [hydrocarbon] and spatial (horizontal and vertical) and temporal (seasonal and interannual) variability of these properties, and vent-fluid characteristics if applicable.

4.8 Seabed substrate and sub-seabed characteristics

Provide a description of seabed substrate and sub-seabed composition (to benthic subsurface layers) of the wider mine sites, the impact areas, and the designated Preservation Reference Zones (PRZs), including, but not limited to, physical, chemical, geological and oceanographic properties, specific gravity, bulk density, sediment composition, physical and chemical composition of pore-water and pore-water profiles, grain size, [mineralogy] sediment mechanics, dissolved and particulate organic and inorganic carbon, nutrients, carbonates, redox regimes, and spatial (horizontal and vertical) and temporal (seasonal and interannual) variability in these characteristics). Substrate composition shall [~~should~~] be described to a depth below the seafloor prescribed in the relevant Standard on Baseline Information and the applicable [as indicated in the] [or] Regional Environmental Management Plan.

4.8bis Rare or sensitive habitats

Identify and describe the physical and chemical characteristics of rare or sensitive habitats in line with the respective international guidelines (FAO 2009, Azores Criteria 2010) and policy decisions (, UN, CBD …) such as hydrothermal vents, ridges, seamounts, as well as oceanographic fronts or eddies, abyss hills and canyons and other geological and oceanographic features.

4.9 Natural hazards

Provide a description and trend analysis of variation related to applicable potential natural hazards for the site, including, but not limited to, volcanism, seismic activity, cyclone/hurricane, tsunamis, climate-related oceanographic changes and variability [, slides, slumps,] etc. and how these may develop [vary] in future, e.g. as a consequence of climate change.

4.10 Noise and light

Provide a description of local ambient noise and light at the seabed, [~~in~~] throughout the water column and at the surface, including, but not limited to, light intensity, backscatter, and attenuation, bioluminescence, and spatial (horizontal and vertical) and temporal (seasonal and interannual) variability in these characteristics, indicating pertinence to fauna where known.

4.11 Greenhouse gas emissions [~~and climate change~~]

Provide a description [and quantification] of the level of gas and fluid emissions from [~~both natural and~~] anthropogenic activities in the Area, as well as those affecting sea floor and water-column chemistry.[~~The climate mitigation functions and services of the ocean should also be described (including CO2 update and sequestration, or nutrient cycling).~~]

4.11bis Climate Change

Description of the expected changes in physical and chemical oceanographic conditions and processes in the broader area of the mine site due to climate change.

4.12 Summary of the existing physicochemical environment

Summarize key findings and include notes on special considerations for rare or sensitive habitats hydrothermal vents, ridges, seamounts and

oceanographic fronts or eddies, abyss hills [, fracture zones] and canyons and other geological and oceanographic features described in this section. It is anticipated that this summary will be up to one page and be more extensive than the key messages section.

5. Description of the existing biological environment

Give a detailed account of knowledge of the biological communities' composition and structure and ecosystem functions in the proposed mining sites and impact areas, and the designated Preservation Reference Zones (PRZs), including information from a thorough literature review and baseline data collected from on-site campaigns, in accordance with the Regulations and applicable Standard and taking into account the relevant Guidelines. The description of the site should be divided by depth regime (surface, midwater from 200m depth to 50m above bottom and benthic including benthopelagic, where appropriate) or otherwise as indicated in the relevant Regional Environmental Management Plan and provide a description of the various biological components and communities that are present in or utilize the area. The Standard [~~Guidelines~~] on baseline environmental 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 detail in this section is expected to be based on a prior environmental risk assessment that identified, and thus the elements that need to be measured and assessed in the environmental impact assessment.

5.1 Key messages

Provide key messages (overview of main findings, covered in six or fewer bullet points).

5.2 Regional overview

Provide regional context for the baseline environmental conditions of the mining site and impact areas, and the designated Preservation Reference Zones (PRZs), including but not limited to the general biological setting, [taking into account] in accordance with the applicable Regional Environmental Management Plan. This should be a brief section that includes a habitat classification map. A more detailed description of the mining site, the Preservation Reference Zones (PRZs) [~~specific~~] and impact area description will be provided in accordance with the sections below.

5.3 Studies completed

Describe any prior research/Exploration studies (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. This research 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

Provide a description of biological [and ecological] properties in the [region and the mine site, with special focus on the designated preservation reference zones PRZ and the total [mine site and] Impact Area, including diversity, abundance, biomass, life history parameters, relevant behaviour, including feeding rates, community-level analyses, connectivity, trophic relationships, resilience, ecosystem functions and services as well as seasonality and spatial (horizontal and vertical) and temporal variability. Any work on ecosystem models and appropriate ecosystem indicators, etc., should also be presented here. This section should span the size range from megafauna to microbial communities and shall be guided by the variables given by the Standard for the establishment of baseline environmental data.

The description of the [benthic ecosystem] fauna and its food web is structured by depth range, as this enables a direct link[~~age~~] to the source and location of an impact. For each depth zone, (at least surface, midwater and benthic as below) there should be a[n inventory] [USA] [description] [Canada] of the known taxonomic/ecological groups (e.g., plankton, fish, marine mammals, marine turtles, benthic microbial invertebrates, demersal scavengers) [in accordance with] the Authority's Guidelines.

Describe the biological communities and ecosystem functions, structured by depth ranges in accordance with the relevant Standards and [taking into account] Regional Environmental Management Plans, may encompass:

1. surface seawater

2. epipelagic zone (< 200 metres)

3. mesopelagic zone (200-1000 metres),

4. bathypelagic zone (1000 - 4000 metres),

5. abyssopelagic zone (4000 - 6000 metres),

6. hadalpelagic zone (> 6000 meters),

7. demersal zone (part of the water column near to and significantly affected by the seabed), and

8. benthic zone.

The description should evaluate the temporal and spatial variability in distribution and composition.

The description should include the size and habitat distributions of the fauna and their life history stages (such as larval and juvenile stages, which differ from the adult stage) as well as trophic pathways. Discussions of species and communities should include considerations of whether they are endemic (restricted to just the site, resource substrate or region) or are known to be rare, threatened or endangered.,

Migratory and highly mobile species should be included where foraging ranges / migration pathways / management units have been noted as overlapping with proposed operations during scoping.

The climate mitigation functions and services of the ocean shall also be described (including CO2 update and sequestration, or nutrient cycling).

5.4.1 Surface

Describe the biological communities from the surface to a depth of 200 metres, including microbes plankton (phytoplankton and zooplankton, microbial plankton and organic matter), micro-nekton [Germany] surface/near-surface fish such as tuna, and seabirds, marine turtles and marine mammals. Address factors provided in 5.4, as well as spatial and temporal variability and trends.

~~[Alt. 5.4.1 Surface~~

~~Describe the biological communities and ecosystem functions, structured by depth ranges in accordance with relevant Standards and [taking into account] Regional Environmental Management Plan, which may encompass:~~

~~surface seawater~~

~~epipelagic zone (< 200 metres)~~

~~mesopelagic zone (200-1000 metres),~~

~~bathypelagic zone (1000 - 4000 metres),~~

~~abyssopelagic zone (4000 - 6000 metres),~~

~~hadalpelagic zone (> 6000 meters),~~

~~demersal zone (part of the water column near to and significantly affected by the seabed), and~~

~~benthic zone.~~

~~The description should evaluate~~ the temporal and spatial variability in distribution and composition.]

5.4.2 Midwater

Describe the pelagic communities [~~fauna~~] and their habitat in the open water from a depth of 200 metres down to 50 metres above the sea floor, and include particulate organic matter, microbes, zooplankton, nekton, mesopelagic, bathypelagic and abyssopelagic fishes and deep-diving mammals. Address factors provided in 5.4, as well as spatial and temporal variability.

5.4.3 Benthic

Describe the [known] benthic microbial, invertebrate and fish communities, including infauna, epifauna, benthopelagic fauna, and demersal fish and scavengers, up to an altitude of 50 metres above the sea floor [and at least 5 meters below (into the sediments).] This inventory should include considerations of species richness, biodiversity, faunal densities, taxonomic uniqueness, community structures and connectivity, etc. Ecosystem functions, such as [B]bioturbation, habitat and food [Germany] creation [~~supply~~] and elemental cycling etc. should also be covered in this section. Address factors provided in 5.4, as well as spatial and temporal variability and patchiness.

[5.4.4Ecosystem/community-level description

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

[Alt. 5.4.4 Ecosystem/community-level description

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

5.5 Summary of the existing biological environment

Summarize the findings focusing on key ecosystems and species determined above. It is envisaged that this summary will be up to one page in length.

5.6 Rare or sensitive habitats and species

Identify and describe the biological characteristics of rare or sensitive habitats and species potentially affected by the planned mining operation. The identification (as in 4.8bis) shall be guided by the respective international guidelines (FAO 2009, Azores Criteria 2010) and policy decisions (UNGA, CBD) and include features such as hydrothermal vents, ridges, seamounts, as well as oceanographic fronts or eddies, abyss hills and canyons and other geological and oceanographic features.

Identify any unique, rare and threatened elements, outline which habitats and communities can be considered representative and their distribution, indicate existence and connectivity to the same habitats and communities outside the mine site and the potential impact zone.

6. Description of the existing human activities / the socioeconomic and sociocultural environment

This section should describe the socioeconomic and sociocultural environment aspects and potential impacts of the project ~~based~~ on [the] existing human activities. This may include consideration of the scale of effects (such as the creation of jobs and estimates of the risk of environmental impacts), extent of duration of impacts in time and space, intensity or severity of social impacts and an assessment of whether impacts are likely to be cumulative. It is important to consider the social equity or distribution of impacts across different populations: in other words, which groups are likely to be affected in which ways.

6.1 Key messages

Provide key messages (overview of main findings, covered in six or fewer bullet points).

6.2 Existing uses

6.2.1 Fisheries

Relevant fisheries shall be described here to further assess the socioeconomic impacts. This should include description of areas of significance for migratory fish stocks, such as spawning grounds, nursery areas or feeding sites. Any closed fishery areas such as VME closures, MPAs, or voluntary closures must be named and taken into consideration. Provide a 'heat map' showing important fishery areas in relation to proposed operations and note any areas of interaction or cumulative impact.

6.2.2 Marine traffic

This section describes the non-project-related marine traffic occurring within the Contract area and uses the Regional Environmental Management Plan in accordance with IALA's regulations to provide a summary of regional movements. Provide a 'heat map' showing densities of marine traffic in relation to proposed operations and note any areas of interaction or cumulative impact. Provide this per season if repeatable seasonal variation exists.

6.2.2bis Submarine cables

This section describes the in situ non-project-related submarine cables occurring within the Contract area. Provide a map showing known submarine cables in relation to proposed operations and note any areas of interaction or cumulative impact.

6.2.3 Tourism

Describe areas used by cruise liners and for game fishing, sightseeing, marine mammal watching and other relevant tourism activities. Provide a 'heat map' showing densities of tourism in relation to proposed operations and note any areas of interaction or cumulative impact. Provide this per season if repeatable seasonal variation exists.

6.2.4 Marine scientific research

Outline the ongoing current scientific research programmes taking place in the area, studying the essence of phenomena and processes occurring in the marine environment and the interrelations between them.

6.2.5 Sociocultural uses

List [human activities in] [sociocultural uses of] the project area (e.g., traditional navigation routes, migratory paths of culturally significant marine species, sacred sites and waters associated with ritual or ceremonial activities of Indigenous Peoples and local communities [~~as well as known or suspected Underwater Cultural Heritage~~).]

Alt **6.2.5**

List sociocultural uses the project area (e.g., traditional navigation routes, migratory paths of culturally significant marine species, sacred sites and waters associated with ritual or ceremonial activities of Indigenous Peoples and local communities as well as known or suspected objects or sites of an archaeological or historical nature, taking into account the work of the United Nations Educational, Scientific and Cultural Organization referred to in Regulation 35(2).

6.2.6 Other

List other uses of the project area that are not related to the above (e.g., other, exploitation projects [sports and leisure).

~~**6.2.7bis Other mineral exploration**~~

6.2bis Planned uses

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

6.3 Sites of an archaeological, historical significance

List any sites of archaeological or historical significance that are known to occur [or may occur] within the potential area of impact. Provide a map as applicable showing known archaeological and historical sites in relation to proposed operations and note any areas of interaction or cumulative impact taking into account the work of the United Nations Educational, Scientific and Cultural Organization referred to in Regulation 35(2). [~~Known human connections to or uses of the area should also be acknowledged. Copies of surveys of the project area shall be submitted with notes about anomalies that may [indicate the presence of objects of an archaeological and historical nature that should be subject to further research before any potentially destructive activities occur.~~]

6.4 Summary of existing socioeconomic and sociocultural environment

Summarize key findings regarding the socioeconomic and 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 physical, chemical and geological environment and proposed Mitigation

Provide a detailed description and evaluation of potential impacts and Environmental Effects of the operation to components of the physical chemical and geological environment identified in section 4. This should consider the entire

lifespan of the project, i.e. construction/development (precommissioning-) of the mine site, operational and decommissioning phases, and following Closure of the site. The potential for accidental events and natural hazards. The detail in this section is expected to be based on a prior environmental risk assessment prepared, reviewed, and revised in accordance with [~~Annex IVbis (h)~~] Regulation 47ter and respective Standard and Guideline for Environmental Impact Assessment (chapter III Scoping, D). It should include for each component a description of:

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

(a)bis The nature, duration and extent of any actual or potential impact, including cumulative effects and taking into account ecological and biologically significant areas;

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

(b) Measures that will be taken to prevent, mitigate and manage such impacts; and

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

(d) The extent to which any potential impacts and Environmental Effects may occur in areas under a State's national jurisdiction.

The detail in this section is expected to be based on the environmental risk assessment carried out according to the relevant regulations, Standards and Guidelines 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 potential impacts caused by the proposed mining operation.

Key elements that need to be included are:

(a) The major types of potential impacts, such as habitat removal, variations in communities' composition, the creation of sediment plumes, dewatering plumes, noise, light, etc.;

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

(b bis) Descriptions of test mining studies undertaken prior to the application;

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

(d) Descriptions of the methods applied to describe and quantify impact categories and assessment from impact to receptor (including the assumptions and limitations of any impact modelling undertaken);

7.2 bis Description of impact pathways

The preferred approach for this template is to include for each receptor descriptions of:

(a) The methods used to determine the pathway from impact to receptor (including the assumptions and limitations of any impact modelling undertaken);

(b) The source(s) of impact

(c) The nature, spatial extent and temporal extent of potential impact(s), including cumulative impacts;

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

(e) The unavoidable (residual) impacts that will remain, including their expected longevity and outline the measures that will be taken to ensure long-term site compliance with the environmental quality objectives, quantitative thresholds, and indicators in accordance with these regulations and the applicable Standard, and taking into account the relevant Guidelines.

7.2 ter Receptors and impacts

Receptors for which this will be done include:

(a) Meteorology and air quality

(b) Geology [and Geophysics]

(c) Physical oceanography

(d) Chemical oceanography of the mine site and impact area

(e) Seabed substrate characteristics

Impacts to be considered include:

(a) Sediment plume generation,

(b) discharge of water

(b)bis Energy flow pathways (such as hydrothermal fluid);

(c) Noise and light

(d) Greenhouse gas emissions and climate change emissions (including estimated greenhouse gas emissions and a greenhouse gas emissions assessment where appropriate)

Effects to be considered include:

(a) changes in temperature and salinity of water,

(b) optical characteristics / water clarity

(c) turbidity / particulate loading

(d) sediment characteristics (including changes in the sediment composition, grain size, density and pore-water profiles)

(e) discharge plumes (frequency, spatial extent, composition and concentration, etc.)

(f) primary sediment plume (frequency, spatial extent, composition and concentration)

(g) dissolved gas levels

(h) nutrient levels

(i) For a sea floor massive sulphide project, the modification of vent-fluid discharges, if present, should be addressed.

7.8 Accidental events and Natural hazards

Discuss impacts of accidental events and the cumulative effects of the mining operation in relation to any natural hazards that could occur, including, but not limited to, volcanism, seismic activity, cyclone/hurricane, tsunamis, etc. and the measures that will be taken to avoid, remedy or mitigate those impacts.

7.9 Noise and light

Provide a description of the expected emissions of noise and light from the proposed operations ~~[and any potential environmental effects, especially any impacts of noise on avoidance, masking and availability of prey (e.g., on marine mammals) and fish. Provide a description of the measures that will be taken to ensure compliance with applicable environmental quality objectives and quantitative thresholds for noise and light levels for relevant fauna, in accordance with these regulations and the applicable Standard, and taking into account the relevant Guidelines.~~] [*The deleted part has been suggested moved to section 8.6.1.1. See facilitator comment for more information*].

7.10 Greenhouse gas emissions and climate change

Provide an assessment of gas and chemical emissions from proposed operations, relative to emissions both natural and anthropogenic activities. Subsections should include estimated greenhouse gas emissions and a greenhouse gas emissions assessment where appropriate. ~~Effects of mining on ocean climate mitigation functions and services should be described (including any anticipated alteration of CO_2 uptake and sequestration, or nutrient cycling.)~~] [*The deleted part has been suggested moved to section 8.6.1.2. See facilitator comment for more information*].

7.13 Cumulative impacts

Provide a description of the source of nature and extent of any interactions between various potential environmental impacts and Environmental Effects across the environment. Where they may have cumulative effects, they must be considered on both spatial and temporal scales over the lifetime of the proposed mining operation and in the post-Closure period and alternatives considered.

7.13.1 Proposed operations impacts

Cumulative within the mining site and Impact Area of the mining proposed herein.

7.13.2 Regional operation impacts

Cumulative between activities, actions, or natural phenomena, where known in the region.

7.14 Other issues

Outline here other, more general issues, as applicable.

7.15 Summary of residual effects

Summarize key findings on potential environmental impacts and Environmental Effects, environmental management measures, and any potential impacts and effects to areas under any State's national jurisdiction. A table may be a useful summary format to pull together the above elements in a simple visual mode. The table should include a column outlining the measures that will be taken to address potential environmental impacts and manage residual effects and ensure long-term site compliance with the environmental quality objectives, quantitative thresholds, and indicators in accordance with these regulations and the applicable Standard and taking into account the relevant Guidelines.

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

Provide a detailed description and evaluation of potential impacts and Environmental Effects of the proposed operation and alternatives considered in section 3.7 to the biological environment components identified in section 5 in the mine site and the Impact Areas. Consider impacts and effects that could happen during the entire lifespan of the project i.e. construction/development (pre-commissioning), operational and decommissioning phases and following Closure of the site. The potential for accidental events and natural hazards should be considered.

The detail in this section is expected to be based on a prior environmental risk assessment prepared, reviewed, and revised in accordance with [Regulation 47ter][~~Annex IVbis(h)~~] and respective Standards and Guidelines for Environmental Impact Assessment Process. The [description] analysis shall be structured by the depth ranges described in section 5 and shall for each component, provide a description of:

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

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

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

(b) Measures that will be taken to prevent, mitigate and manage such impacts with reference to the submitted Environmental Management and Monitoring Plan; and

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

(d) An evaluation of the impacts and effects against the applicable environmental goals and objectives, [and] indicators and thresholds as identified in the [in] relevant environmental standards and Guidelines and in the applicable Regional Environmental Management Plan. (e) The extent to which any potential impacts and Environmental Effects may occur in areas beyond the contract area or under a State's national jurisdiction.

The detail in this section is expected to be based on the [~~scoping~~] environmental risk assessment, carried out according to the relevant regulations, Standards and Guidance 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

Provide an overview and description of the categories of potential impacts caused by the hazards arising from the proposed mining operation and alternatives considered. This should introduce the major types of impacts and their effects on the biotic environment, such as habitat removal, the crushing of animals, the

creation of sediment plumes, noise and light, etc. and be referred to in subsequent descriptions and evaluations of potential environmental impacts and Environmental Effects from the hazards posed by the proposed operation and alternatives considered. A description should be included of any lessons learned from activities during the exploratory phase of the programme (e.g., mining system component tests).

Key elements that need to be included are:

(a) Description of the major types of potential impacts, such as habitat removal, the biological effects of sediment plumes and dewatering plumes, noise, light, etc. These impact categories should be used in subsequent descriptions and evaluations of potential environmental impacts and Environmental Effects from the proposed operations.

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

(b bis) Descriptions of test mining studies undertaken prior to the application; 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 pathways and assessment in line with the relevant Standard and Guideline, i.e. EIA Guideline.

8.2 bis Description of impact pathways

The preferred approach for this template is to include for each impact pathway an overarching description of:

(a) The methods used to determine the pathway from impact to receptor (including the assumptions and limitations of any impact modelling undertaken);

(b) The source(s) of impact

(c) The nature, spatial extent and temporal extent of potential impact(s), including cumulative impacts;

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

(e) The unavoidable (residual) impacts that will remain, including their expected longevity and outline the measures that will be taken to ensure long-term site compliance with the environmental quality objectives, quantitative thresholds, and indicators in accordance with these regulations and the applicable Standard, and taking into account the relevant Guidelines.

8.2 ter Receptors and impacts

Receptors for which this must be done include:

(a) Microbial communities

(b) Phytoplankton ~~[/ zooplankton / nekton]~~

(b)bis zooplankton and micronekton

(b)ter nekton

(b)quart benthopelagic fauna, including scavengers

(c) Meiofauna (infauna / epifauna)

(d) Macrofauna (infauna / epifauna / demersal fish)

(e) Megafauna, including surface/near-surface fish such as tuna, and seabirds, marine turtles and marine mammals

As appropriate, these receptors are to be considered:

(a) at the surface (from the surface down to a depth of 200 metres)

(b) midwater (from a depth of 200 metres down to 50 metres above the sea floor)

(c) up to an altitude of 50 metres above the sea floor, including zooplankton, nekton, mesopelagic and bathypelagic fishes and deep-diving mammals.

Impacts to be considered include:

(a) Sediment plume generation,

(b) discharge of water

(c) Noise and light

(d) Greenhouse gas emissions and climate change emissions (including estimated greenhouse gas emissions and a greenhouse gas emissions assessment where appropriate)

Effects to be considered include:

(a) changes in temperature and salinity of water,

(b) optical characteristics / water clarity

(c) turbidity / particulate loading

(d) sediment characteristics (including changes in the sediment composition, grain size, density and pore-water profiles)

(e) discharge plumes (frequency, spatial extent, composition and concentration, etc.)

(f) primary sediment plume (frequency, spatial extent, composition and concentration)

(g) dissolved gas levels

(h) nutrient levels

(i) For a sea floor massive sulphide project, the modification of vent-fluid discharges, if present, should be addressed.

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

8.6.1.1 Noise and light Provide a description of the expected emissions of noise and light from the proposed operations and any potential environmental effects, especially any impacts of noise on avoidance, masking and availability of prey (e.g., on marine mammals) and fish. Provide a description of the measures that will be taken to ensure compliance with applicable environmental quality objectives and quantitative thresholds for noise and light levels for relevant fauna, in accordance with these regulations and the applicable Standard, and taking into account the relevant Guidelines. [*This part has been inserted from section 7.9. See facilitator comment for more information*].

8.6.1.2 Greenhouse gas emissions and climate change Effects of mining on ocean climate mitigation functions and services should be described (including any anticipated alteration of CO2 uptake and sequestration, or nutrient cycling.) [*This part has been inserted from section 7.10. See facilitator* comment *for more information*].

8.6.2 Environmental management measures to mitigate impacts

8.7 Cumulative effects

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 including existing uses considered in the Assessment and described in Section 9 of the Environmental Impact Statement as well as an evaluation of the resulting cumulative effects to the ecological balance of the marine environment, including the spatial and temporal extent of such effects. Describe how spatial and temporal cumulation will differ between faunal groups and different habitats.

Provide a description of the source of nature and extent of any interactions between various potential environmental impacts and Environmental Effects across the environment. Where they may have cumulative effects, they must be considered on both spatial and temporal scales over the lifetime of the proposed mining operation and in the post-Closure period and alternatives considered.

8.7.1 Proposed operations effects

Cumulative effects within the scope of the site and Impact Area of the mining proposed herein.

8.7.2 Regional operation effects

Cumulative effects between activities to be analysed by the Secretariat according to the REMPs, [where known in the region].

8.8 Summary of residual effects

Summarize key findings on potential environmental impacts and Environmental Effects, environmental management measures, residual effects, and any potential impacts and effects to areas under any State's national jurisdiction. Information on potential recovery times following disturbance and the longevity of residual effects should be included. This will give readers an understanding of the temporal component and efficacy of proposed mitigation measures. A table may be a useful summary format to pull together the above elements in a simple visual mode. The table should include a column outlining the measures that will be taken to address potential environmental impacts and residual effects and ensure long-term site compliance with the environmental quality objectives, quantitative thresholds, and indicators in accordance with these regulations and the applicable Standard and taking into account the relevant Guidelines.

8.9 Practicable restoration and rehabilitation of the project area – approach The restoration and rehabilitation of the project area should be considered as a part of the mitigation hierarchy. At this stage in the Environmental Assessment Process, there might be no final knowledge on the potential of restoration and rehabilitation in the area, so a plan should be proposed to develop this knowledge throughout the lifespan of the project and to prepare the decision on the issue at the end of the project. This should be done in accordance with relevant Standards and taking into account relevant guidelines.

Alt. 8.9 Accidental events and Natural hazards

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

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

Provide a detailed description and evaluation of potential impacts and Environmental Effects of the operation to the socioeconomic and sociocultural components identified in section 6. This should include projections on the potential impacts in national waters outside the mining area and should also consider the entire lifespan of the project i.e. construction/development (pre-commissioning), operational (including maintenance) and decommissioning phases. A description of the benefits to mankind may be included. Attitudes towards, and perceptions of, the proposed project are among the variables that should be considered in determining the significance of impacts. The potential for accidental events [and natural hazards] should also be considered.

9.1 Key messages

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

9.1 bis Description of potential impact categories

Provide an overview and description of the categories of potential impacts caused by the proposed mining operation. Key elements that need to be included are:

(a) the major types of potential impacts, such as habitat removal, the creation of sediment plumes, noise, light, etc. These impact categories should be used in subsequent descriptions and evaluations of potential environmental impacts and Environmental Effects from the proposed operations.

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

(c) bis Descriptions of test mining studies undertaken prior to the application;

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

(e) Descriptions of the methods applied to describe and quantify impact pathways and assessment.

9.1 ter Description of impact pathways

The preferred approach for this template is to include for each impact pathway an overarching description of:

(a) The source

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

(a)bis The nature, spatial extent and temporal extent of potential impacts, including cumulative impacts;

(b) Measures that will be taken to avoid, minimise or mitigate such impacts, including a comparative analysis of how measures taken may differ across alternative operations considered;

(c) The unavoidable (residual) impacts that will remain, including their expected longevity. The detail in this section is expected to be based on the scoping environmental risk assessment that will have identified the main impacts, and thus the elements that need to be emphasized in the environmental impact assessment; and

(d) The extent to which any potential impacts and effects may occur in areas under a State’s national jurisdiction.

9.2 Impact identification

9.2.1 Impacts on [E]existing human uses

For each of the following marine uses, describe:

(a) Potential impacts and effects and issues to be addressed;

(b) Environmental management measures to Mitigate impacts and effects;

(c) Residual impacts and effects; and

(d) Potential impacts and effects in areas under any State's national jurisdiction.

9.2.1.1 Fisheries and biological conditions

A description of potential impacts, e.g., effects from light and noise on fisheries and biological conditions, 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 [, according to the IALA's regulations.].

[~~9.2.1.5bis~~] 9.2.2 Impacts on Sociocultural values and uses

A description of potential impacts and issues to be addressed pertaining to sociocultural uses of the area (e.g., traditional navigation routes, migratory paths of culturally significant marine species, sacred sites and waters associated with ritual or ceremonial activities of Indigenous Peoples and local communities), along with proposed management measures and a description of residual impacts.

[~~9.2.1.5ter~~] 9.2.3 Impacts on Ecosystem Functions and Services

A description of potential impacts of the operation on any ecosystem functions and services, for example, carbon burial and sequestration, taking into account the relevant Guidance.

[~~9.2.1.6~~] 9.2.4 Other impacts

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

[~~9.2.1bis~~] 9.2.5 Impacts on 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.[2.~~6~~2] Impacts on Area-based management tools

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

9.[3] Impacts on Sites of an archaeological or historical nature

Describe, as applicable, potential impacts to sites of archaeological, [paleontological] or historical significance that are known to occur within the potential area of impact, along with proposed management measures, taking into account the work of the United Nations Educational, Scientific and Cultural Organization referred to in Regulation 35(2) [and a description of residual impacts.]

9.4 Gender Impact analysis

Assess and analyse how the proposed operations may impact on gender roles and relationships.

~~[9.5 Socioeconomic and sociocultural issues~~

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

9.5.1 Summary of socioeconomic and sociocultural environment

Summarize findings on management measures, residual effects, and any potential impacts and effects, (including to sociocultural conditions). A table may be a useful summary format to pull together the above elements in a simple visual mode. Potential cumulative effects should also be included.

9.5bis. Assessment of Uncertainty

9.5bis.1 Uncertainty Assessment

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

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

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

9.5bis.2 Addressing Significant Uncertainty

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

9.6 Accidental events and Natural hazards

Discuss any impacts of accidental events and the cumulative effects of the mining operation and natural hazards, and the measures that will be taken to avoid, remedy or mitigate those impacts.

9.6.1 Potential impacts and issues to be addressed

9.6.2 Environmental management measures to mitigate impacts

9.6.3 Residual effects

Provide a description of any residual impacts that may remain following the application of mitigation measures, including the expected longevity of those impacts, and outline the measures that will be taken to ensure long-term site compliance with the environmental quality objectives, quantitative thresholds, and indicators in accordance with these regulations and the applicable Standard, and taking into account the relevant Guidelines.

10. Hazards arising from natural, accidental and discharge events

This section should outline the possibility/probability of accidental events and natural hazards occurring, an assessment of the impact they may have, to the mine site and impact area, the measures taken to prevent or respond to such an event and an assessment of the residual impact should an event occur. This should include an overview of potential environmentally hazardous discharges resulting from accidental and extreme natural events as these are fundamentally different from normal operational discharges of wastes and wastewaters. Reference should be made to the ERCP.

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.

10.4 Maritime safety and interactions with shipping

Provide a description of predicted maritime safety issues and potential interactions with other vessels from the proposed activities with reference to compliance with the relevant conventions.

10.5 Emergency response and contingency plan

Provide a description of an emergency response and contingency plan.

10.6 Waste management

Provide a description of proposed vessel waste management, with reference to compliance with relevant conventions, legislation and principles, and methods of cleaner production and energy balance.

10.7 Blast Water management

Provide a description of proposed vessel blast water management where applicable, with reference to compliance with relevant rules and principles, and methods of cleaner production and energy balance.

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 and the post-closure period).

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 and professional qualifications of key personnel should be outlined.

11.2 Environmental management system

A full environmental management system shall exist at the time the Environmental Impact Statement is submitted. The applicant has to demonstrate that it will be capable of managing appropriate 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. With reference to, the headings set out below and Annex VIII of the Exploitation Regulations of the Authority.

11.3.1 Mitigation and management

Summarize the mitigation and management measures that will be taken, based on the impact minimization and mitigation analysis undertaken as part of the environmental impact assessment. and as described in the environmental impact statement in Sections 7, 8, and 9.

11.3.3 Closure Plan

A Closure Plan will be submitted as a separate document for the Authority's approval prior to the commencement of mining operations. 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

Outline how data collected at the mine site and impact area will meet reporting requirements and best scientific practices outlined in Annex VII on the Environmental Management and Monitoring Plan.

11.4.1 Monitoring

Outline how the results of monitoring studies will be reported to the Authority, as well as the frequency and format of data releases in accordance with the regulations and any relevant Standards and taking into account any relevant Guidelines.

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 how the Contractor will minimize health, safety, environmental, ~~and~~ socioeconomic and sociocultural effects of the intended product or products to meet standards for environmental management, and should address the following potential impacts:

(a) Energy and materials consumption;

(b) Waste generation;

(c) Toxic substances;

(d) Air and water emissions.

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

Consultations shall be inclusive, transparent and open to all relevant stakeholders, including States, global, regional, subregional and sectoral bodies, as well as civil society, the scientific community, indigenous peoples and local communities.

13.1 Consultation methods

Provide a description of the nature and extent, participation and outcomes of consultation(s) that have taken place with relevant Stakeholders, and how their ~~substantive and relevant~~ comments have been addressed in the Environmental Impact Assessment. This will include the description of the mechanisms used to manage the diversity of Stakeholders addressed and comments provided.

This includes describing the mechanism(s) used to consult with different groups and how this aligns with the relevant Standards and Guidelines, also incorporating criteria for Preservation Reference Zones and Impact Reference zones.

13.2 Stakeholders

List Stakeholders that have been consulted and explain the process by which Stakeholders were identified. This should include a brief description of the Stakeholders and a historic overview of any previous activities conducted by the Stakeholders in The Area.

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, including outlining any concerns and comments made by Stakeholders and how these will be addressed, and, if not, describe the reasons for that decision.

13.~~4.3bis~~ Commission consultation

Summarize the Legal and Technical Commission's recommendations on the Scoping Report and proposed Terms of Reference for the applicant's environmental impact assessment submitted to the Commission, and justification for any deviation either from those submitted Terms of Reference, or from the Commission's recommendations. ~~[If the Legal and Technical Commission has not~~

~~issued a recommendation concerning the Scoping Report and proposed Terms of Reference for the applicant's environmental impact assessment, then the applicant is to summaries efforts taken to consult with the Legal and Technical Commission and any response received.]~~

13.5.~~3 ter~~ [Germany] Stakeholder and coastal State Consultation

Describe how comments received under Stakeholder consultation have been or will be taken into account, or why they have not been taken into account, and the reasons for that decision. The summary should be based on the detailed response of the applicant to each consulted party and be available for review.

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

Include a glossary of terms, acronyms and abbreviations used throughout the document. The glossary should include definitions for, and key terms defined in the regulations so as to ensure that users of the Environmental Impact Statement, including the decision-makers and relevant stakeholders, have a clear understanding of the intention behind the use of certain terms in the Environmental Impact Statement. The glossary should be included in the table of contents for the Environmental Impact Statement and referenced in the introduction section.

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. Any remuneration should be mentioned. The names, [current and validated contact information,] occupational qualifications and their role in the generation of the Environmental Impact Statement of such people should also be included. [A statement that those individuals so named concur with the content of the report should be included.] Any conflict of interest must be identified, disclosed in detail in this section including the way it was and continues to be managed.

16. References

Evidence obtained from outside sources should be documented throughout the Environmental Impact Statement, with the use of footnotes or other suitable reference mechanism. In addition, all sources used in preparation of the Environmental Impact Statement (including those specifically referenced in the body of the document) should be listed in bibliography format, with full details of the source (including website addresses, if applicable). This enables users of the Environmental Impact Statement to review the supporting documentation independently.

17. Appendices

The appendices section should include a list of all the technical reports carried out for parts of the environmental impact assessment or that are used in support of any aspect of the environmental impact assessment (such as prior risk assessments or monitoring activities conducted as part of exploration contracts). Copies of these reports should be provided as appendices to the Environmental

Impact Statement, with clear indications as to which section(s) the document is being provided to support.