Parts IV and VI, Annexes IV, VII and VIII of the Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/25/C/WP.1)

Regulation-by-Regulation Compilation of Textual Proposals by Members, Observers and Stakeholders

Part IV
Protection and preservation of the Marine Environment

Section 1
Obligations relating to the Marine Environment

Regulation 44
General obligations

The Authority, sponsoring States and Contractors shall each, as appropriate, plan, implement and modify measures necessary for ensuring effective protection for the Marine Environment from harmful effects in accordance with the rules, regulations and procedures adopted by the Authority in respect of activities in the Area. To this end, they shall:

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

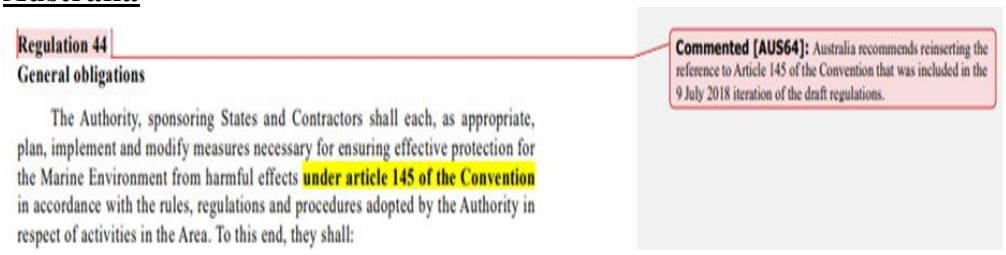
(b) Apply the Best Available Techniques and Best Environmental Practices in carrying out such measures;

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

(d) Promote accountability and transparency in the assessment, evaluation and management of Environmental Effects from Exploitation in the Area, including through the timely release of and access to relevant environmental data and information and opportunities for stakeholder participation.

I - Members of the International Seabed Authority

Australia



Canada

The Authority, sponsoring States and Contractors shall each, as appropriate, plan, implement and modify measures necessary for ensuring ~~effective~~ the protection an preservation ~~for~~ of the unique Marine Environment ~~from harmful effects~~, including rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life, in accordance with the rules, regulations and procedures adopted by the Authority in respect of activities in the Area. To this end, they shall:

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

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

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

(d) ~~Promote~~ Ensure accountability and transparency in the assessment, evaluation and management of Environmental Effects from Exploitation in the Area, including through stakeholder engagement and the timely release of and access to relevant environmental data and information ~~and opportunities for stakeholder participation~~.

Chile

Proyecto de Artículo 44
Obligaciones generales.

Chile considera que es necesario clarificar, con mayor detalle, cuál es el sentido y alcance de la *frase* "***asegurar la eficaz protección del medio marino***", así como también, que es importante detallar qué se entiende como "***efectos nocivos***", ya que el **artículo 145** de la CONVEMAR establece qué actividades pueden generar dichos efectos, pero no cómo se determinan.

Lo mismo respecto del concepto de "***daño al medio ambiente***", de manera tal que quede clara la definición y el alcance de los términos empleados. No se debe olvidar el **art. 192** de la CONVEMAR, que establece la **obligación de proteger y preservar el medio ambiente marino**.

Cambiar "***aplicarán***" en la **letra a y b** por "***asegurarán***", con la finalidad de dar mayor fuerza al uso de las mejores prácticas disponibles aplicables a estas medidas.

Costa Rica

Regulation 44
General obligations

The Authority, sponsoring States and Contractors shall each, as appropriate, plan, implement and modify measures necessary for ensuring effective protection for the Marine Environment from harmful effects in accordance with the rules, regulations, procedures and Standards adopted by the Authority in respect of activities in the Area. To this end, they shall:

RATIONALE: Standards are binding, and should be included.

France

Projet d'article 44 – Obligations générales : Il apparait nécessaire de clarifier, au sein de ce projet d'article, le rôle et les responsabilités respectifs de l'Autorité, des Etats patronnants et du contractant.

En ce qui concerne l'alinéa d, l'obligation de simplement « promouvoir la transparence » n'est pas suffisante. Suggestion de renforcer le langage comme suit : « **garantissent** la transparence ». Nous nous interrogeons en revanche sur ce qui recouvre l'obligation de « promouvoir la responsabilité », trop imprécise en l'état.

Germany

- With regard to **Draft Regulation 44**, Germany would like to suggest a clear re-phrasing of the whole provision in order to clarify which general obligations are aimed at which body and/or actor mentioned. On the basis of the current wording, it seems unclear which of the four paragraphs is addressed to the Authority, Sponsoring States and/or to Contractors. Given that Part IV eventually is one of the most crucial chapters of the Draft Regulations, there should be no ambiguity whatsoever in its introductory provision spelling out "general obligations". The inclusion of the disclaimer "as appropriate" does not sufficiently help here either, as it should not be left to the discretion of any of the bodies/actors mentioned to determine whether or not it feels targeted by (any of) these general obligations.

Germany suggests including a **Draft Regulation [44bis]** on Regional Environmental Management Plans.

Draft Regulation [44bis]:
"1. The Authority shall develop Regional Environmental Management Plans in each regional area that is under consideration for the conduct of activities in the Area. 2. The purpose of Regional Environmental Management Plans is to provide region-specific information, measures and procedures in order to ensure effective protection of the marine environment in accordance with Article 145 UNCLOS. To this end, REMPs should in particular entail environmental objectives and standards, if appropriate, taking into account cumulative and synergistic effects, spatial planning instruments, such as the determination of mining areas, APEIs as well as PRZ and IRZ, and procedures and measures taking into account all relevant human activities. Regional Environmental Management Plans shall be drafted in the form prescribed by the Authority in Annex [IVbis]. 3. An application for a Plan of Work shall not be considered by the Commission until and unless a Regional Environmental Management Plan has been adopted by the Council for the particular area concerned. In the event that an application for a Plan of Work is submitted for an area where no such Regional Environmental Management Plan exists, the drafting of a Regional Environmental Management Plan applicable to the area in concern shall be prioritised and adopted without any undue delay, taking into account Section 2, Article 15 b/c of the 1994 Implementing Agreement. 4. Before the adoption of an REMP by the Council, all potentially concerned States, international and regional competent organisations and all stakeholders shall be consulted in accordance with the relevant standards or guidelines. 5. All Regional Environmental Management Plans shall undergo a review after every six years. In addition, the Council may decide to review any Regional Environmental Management Plan at any time before such a review is due, especially if such review is deemed necessary in the light of new scientific information, or if it is of an opinion that the measures to ensure the effective protection of the marine environment prescribed therein are inadequate or ineffective."

Indonesia

Regulation 44 **General obligations** The Authority, sponsoring States and Contractors shall each, as appropriate, plan, implement and modify measures necessary for ensuring the effective protection for the Marine Environment from harmful effects in accordance with the rules, regulations and procedures adopted by the Authority in respect of activities in the Area. To this end, they shall: (a) Apply the precautionary approach, as reflected in principle 15 of the Rio Declaration on Environment and Development, to the assessment and management of risk of harm to the Marine Environment from Exploitation in the Area; (b) Apply the Best Available Techniques and Best Environmental Practices in carrying out such measures; (c) Integrate Best Available Scientific Evidence in environmental decision making, including all risk assessments and management undertaken in connection with environmental assessments, and the management and response measures taken under or in accordance with Best Environmental Practices; Promote accountability and transparency in the assessment, evaluation and management of Environmental Effects from Exploitation in the Area, including timely release of and access to relevant environmental data and information and opportunities for stakeholder participation.	In the light of our comments regarding the protection of rights and legitimate interest of Coastal State in paragraph 8 and 9 of general comments as well our comment in DR 2, we suggest the reference to Rio Declaration in R 44 (a) to be removed	The new formulation of DR 46 (a) should be (a) Apply the precautionary principle ~~approach, as reflected in principle 15 of the Rio Declaration on Environment and Development~~, to the assessment and management of risk of harm to the Marine Environment from Exploitation in the Area;

Japan

Regulation 44: General obligations and Regulation: Assessment of applicants

There may be different understandings among many stakeholders with regard to the terms used under regulations 44 and 13 such as "Best Available Techniques," "Best Environmental Practice," "Best Available Scientific Evidence" and "Good Industry Practices." It is essential to identify the common understanding on those techniques, required specifications of equipment and practices in the relevant Guidelines, which should be developed taking into account the views of relevant stakeholders.

Mexico

en el principio de transparencia que debe regir la actividad de exploración se incluya de manera genérica en los **proyectos de artículos 2 y 44** no limitarlo a la sección relativa a la protección efectiva del Medio Ambiente Marino.

En todo caso, esta publicidad debe ampliarse a:

i) la identificación de los solicitantes/contratistas;
ii) todos aquellos planes y documentos que forman parte del Plan de Trabajo –cuidando los elementos sujetos a derechos de propiedad intelectual e industrial, las invenciones y las patentes-; las resoluciones, opiniones, comentarios y autorizaciones que emitan tanto el Consejo, la Comisión y la Secretaría en relación con la evaluación de las propuestas y Planes de Trabajo y sus determinaciones sobre su viabilidad para realizar las actividades de minería submarina –incluyendo toda la información relacionada con las extensiones de plazo-;
iii) los contratos de explotación con sus términos y condiciones;
iv) todos y cualesquier pagos realizados a los contratistas;
v) los ingresos percibidos por la Autoridad derivado de las actividades de explotación junto con los ingresos y ganancias de los contratistas;
vi) los reportes de los contratistas respecto de sus actividades, incluyendo aquellas relacionadas con la ejecución de los contratos y los riesgos, accidentes e incidentes ocurridos durante el desarrollo de sus actividades en el que se incluyan las medidas de mitigación y remediación que se llevaron a cabo para responder frente a dichos incidentes;
vii) los resultados de las evaluaciones, monitoreo y demás actividades de gestión que realice la Autoridad a los contratos y al Plan de Cierre;
viii) los estudios respecto de los impactos posteriores a la conclusión de los trabajos y las medidas adoptadas en aras de minimizar, mitigar, reparar y restaurar el ecosistema marino;
ix) la información técnica y científica –incluyendo los muestreos y el desarrollo de sus indicadores- respecto de las actividades de minería submarina que pueda contribuir a la transmisión de conocimiento y tecnología como una manera no monetaria de participar en el reparto de beneficios.

Micronesia

On Draft Regulation 44, the FSM reiterates that the incorporation of the traditional knowledge of IPLCs as well as the direct involvement of holders of such traditional knowledge should be considered to be part of Best Environmental Practices for carrying out measures to effectively protect the Marine Environment as well as a complement to the Best Available Scientific Evidence in environmental decision-making, as contemplated under Draft Regulation 44. Such traditional knowledge and its holders can be explicitly referenced in the definition of Best Environmental Practices as well as mentioned alongside Best Available Scientific Evidence as a complementary source of relevant knowledge and information, as done in multiple other multilateral environmental agreements and related processes.

Morocco

Partie IV: **Protection et préservation du milieu marin** **Article 44** : Obligations générales	-La transparence et la responsabilité doivent être la base en matière d'évaluation et de gestion de risques; -Les obligations de l'Autorité, de l'État parrain et du Contractant doivent être définies et différenciées; -Besoin d'élaboration de lignes directrices sur la notion de dommages graves.

Myanmar

5. In the "Part IV: Protection and preservation of the Marine Environment", it should be considered that we have insufficient knowledge of the deep sea resources and lack of thorough assessment of environmental impacts of deep marine mining operations. Therefore, an effective regulatory framework is needed to avoid lasting harm to the marine environment, based on high-quality environmental impact assessments and mitigation strategies. Therefore, some legal and technical framework for the environmental management and conservation should be designed more detail in the guidelines, manual and standard which will be developed in accordance with the developing technology and market economy. The laws and regulations applied in Myanmar should be mentioned as **"Myanmar Oil and Gas Enterprise complies the Environmental Conservation Law (2012), Environmental Conservation Rules (2014), Environmental Impact Assessment Procedure (2015), IFC Guideline – 2015 and National Environmental Quality (Emission) Guidelines (2015) concerning the preservation of Marine Environment and discharge of wastes as per described in Regulation (Draft) IV – Protection and preservation of the Marine Environment in the offshore Oil and Gas Exploration and production.**

New Zealand

44	**General obligations** The Authority, sponsoring States and Contractors shall each, as appropriate, plan, implement and modify measures necessary for ensuring effective protection for the Marine Environment from harmful effects in accordance with the rules, regulations and procedures adopted by the Authority in respect of activities in the Area. To this end, they shall: (a) Apply the precautionary approach, as reflected in principle 15 of the Rio Declaration on Environment and Development, specifically when assessing and managing ~~to the assessment and management of~~ risk of harm to the Marine Environment from Exploitation to the Area, and where information is uncertain or inadequate, the Authority shall favour caution and environmental protection; (b) Apply the Best Available Techniques and Best Environmental Practices in carrying out such measures; (c) Integrate Best Available Scientific Evidence in environmental decision-making, including all risk assessments and management undertaken in connection with environmental assessments, and the management and response measures taken under or in accordance with Best Environmental Practices; and (d) Promote accountability and transparency in the assessment, evaluation and management of Environmental Effects from Exploitation in the Area, including through the timely release of and access to relevant environmental data and information and opportunities for stakeholder participation.	The proposed changes aim to clarify what the application of the precautionary approach should look like in practice.

Spain

TERCERA.- **ARTÍCULO 44**

El **artículo 44 a)** recoge la obligación general de aplicar el "criterio de precaución". A diferencia de lo que ocurre con otros términos como "mejores técnicas disponibles", "mejores prácticas ambientales" o "mejores conocimientos científicos disponibles", en

la Adenda no aparece definido el alcance de este criterio. El Reino de España sugiere a la Comisión que proponga una definición al respecto.

El Reino de España entiende, además, que es absolutamente necesario "garantizar" y no solo "promover" la rendición de cuentas y la transparencia" en el examen, la evaluación y la gestión de los efectos ambientales de la explotación, como se menciona en el **apartado d).**

United Kingdom

44. General obligations	(a) Apply the precautionary approach, as reflected in principle 15 of the Rio Declaration on Environment and Development, to the assessment and management of risk of harm to the Marine Environment from Exploitation in the Area;	(a) Apply the precautionary principle, ~~approach, as reflected in principle 15 of the Rio Declaration on Environment and Development,~~ to the assessment and management of risk of harm to the Marine Environment from Exploitation in the Area;	UK remains of the view that this should refer to the precautionary 'principle'.
	-	(a bis) Apply the Ecosystem Approach to the assessment and management of risk of harm to the Marine Environment from Exploitation in the Area;	It is important to include the principle of an Ecosystem Approach in the Regulations, so there is an integrated approach to management of the Area, to ensure that the conservation of biodiversity is balanced alongside sustainable use and benefit sharing.

II - Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

United States of America

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

(d) [Promote][Require] accountability and transparency in the assessment, evaluation and management of Environmental Effects from Exploitation in the Area, including through the timely release of and access to relevant environmental data and information and opportunities for stakeholder participation.

(e) In order of priority, avoid, minimize, mitigate, and remediate harm to the marine environment.

Commented [A45]: Requiring accountability and transparency seems to be a more appropriate choice here.

Commented [A46]: NOAA sees value in explicitly stating this hierarchy and understand it to be common practice under e.g., the Clean Water Act and similar domestic legislation of Members.

Advisory Committee of the Protection of the Sea

DR 44 (former DR 46): General obligations
We note that the LTC needs further information on the role of the Authority and the Sponsoring States with regard to this DR as a whole. We concur and suggest that more information is also required on the role of Contractors.

We further note that this DR is addressed to three different parties/bodies - the Authority, Sponsoring States, and Contractors. Each party/body has different powers, rights and duties under the LOSC with regard to the four obligations (a)-(d) set out in this DR. These obligations cannot be imposed in a single blanket Regulation that is not specifically differentiated for each party/body. Each obligation must be carefully defined for and allocated to the appropriate party/body/parties/bodies for implementation and enforcement. This is essential for regulatory clarity and predictability, and to maintain a level playing field for all Contractors. Consequently we await this further information before offering a final view.

We reprise our comments on the previous version with regard to the current **DR 44(d)**: It is recommended to replace "Promote" with "Require". This is consistent with Fundamental Principle 5(d) of these DRs.

Deep Ocean Stewardship Initiative

DR 44: Cognizance of climate change is required to effectively apply the Precautionary Approach, Best Available Techniques and Best Environmental Practices, Best Available Scientific Evidence, accountability, and transparency.

DR 44(d): "…Promote accountability and transparency in the assessment, evaluation and management of Environmental Effects from Exploitation in the Area, including timely access to relevant environmental information;" We suggest replacing the term "promote" with "ensure". Additionally, "timely access" is too vague and could be replaced with "immediate".

Deep Sea Conservation Coalition

44	General Obligations	There should be an obligation to avoid, remedy or mitigate any significant adverse effects on the marine environment.

Institute for Advanced Sustainability Studies

59. We recommend the introduction of a new DR 44bis to prescribe the requirement that REMPs should be in place to ensure that region-specific considerations and measures are taken into account. A new Annex III ter should be created to provide some more information on the standardized process of REMP development and adoption, including the provision of a 'template' for each specific REMP. The legal implications that REMPs would have on the process of approval or disapproval of Plan of Works, as well as other matters, should be clarified in this provision.

The Pew Charitable Trusts

~~Draft regulation 46~~Regulation 44

General obligations

The Authority, sponsoring States and Contractors shall each, as appropriate, plan, implement and modify measures necessary for ensuring the effective protection ~~of~~for the Marine Environment from harmful effects ~~under article 145 of~~in accordance with the ~~Convention~~rules, regulations and procedures adopted by the Authority in respect of activities in the Area. To this end, they shall:

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

~~(a) Ensure~~Apply the ~~application of~~ Best Available Techniques and Best

(b) Environmental ~~Practice~~Practices in carrying out such measures;

(c) Integrate Best Available Scientific Evidence in environmental decisionmaking, including all risk assessments and management undertaken in connection with environmental assessments, and the management and response measures taken under or in accordance with ~~Good Industry Practice;~~Best Environmental Practices;

(d) Promote accountability and transparency in the assessment, evaluation and management of Environmental Effects from Exploitation in the Area, including timely release of and access to relevant environmental data and information~~; and~~ and opportunities for stakeholder participation.

III - Stakeholders

Nauru Ocean Resources Inc.

Regulation 44

Given Regulation 44(b) creates a legal obligation on the Contractor to ensure the application of Best Available Techniques and Best Environmental Practice, it is important that those two terms are defined in such a way as to make the requirement commercially viable and be based on reasonable economic and practical constraints.

Regulation 45
Development of environmental Standards

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

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

(b) Monitoring procedures; and

(c) Mitigation measures.

I - Members of the International Seabed Authority

Australia

Regulation 45
Development of environmental Standards

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

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

Commented [AUS65]: Australia notes that this provision was included as a placeholder pending discussion at the workshop in Pretoria in May 2019. This draft regulation should be updated to reflect outcomes of the standards and guidelines recommendations by the LTC and further amendments to those recommendations agreed by the Council at the second part of its 26th session. Australia considers that all environmental protections should be contained in legally binding standards which should be concluded together with the Exploitation Regulations.

(b) **Environmental Management and** Monitoring procedures;

(c) **Environmental Risk Assessment and** Mitigation measures~~.~~;

(d) Baseline data collection;

(e) Scope and content of environmental impact assessments and tatements;

(f) Application for a plan of work;

(g) Environmental management systems;

(h) Environmental performance guarantees.

Canada

Regulation 45
Development of environmental Standards

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

(a) Environmental quality objectives for at least key contaminants of concern in the water column, sediment and tissue), including on toxicity, biodiversity status, plume density and extent, and sedimentation rates;

(b) Monitoring procedures and interpretation of results; and

(c) Mitigation and/or remedial measures.

Costa Rica

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

(a) Environmental quality objectives, including, but not limited, on biodiversity status, plume density and extent, and sedimentation rates;

(b) Monitoring procedures; and

(c) Mitigation measures.

RATIONALE: this should be an indicative list. There should be a detailed discussion of this regulation

France

Projet d'article 45 – Elaboration de normes environnementales : Nous notons que cet article doit être mis à jour à la lumière des conclusions de l'atelier de Pretoria de mai 2019.

Germany

- With regard to **Draft Regulation 45**, Germany suggests including a second paragraph in order to capture one crucial element of Council Decision ISBA/25/C/37.

Draft Regulation 45:
"1. Environmental Standards shall be developed in accordance with regulation 94 and shall include the following subject matters: (a) Environmental quality objectives and indicators, including on biodiversity status, plume density and extent, and sedimentation rates; […]. 2. The Authority shall not approve any exploitation activities unless the necessary environmental standards have been adopted."

Indonesia

Regulation 45
Development of Environmental Standards

Environmental Standards shall be developed in accordance with regulation 9 4 and shall include the following subject matters:

(a) Environmental quality objectives, including on biodiversity status, plume density and extent, and sedimentation rates;
(b) Monitoring procedures; and
Mitigation measures.

Italy

Part No./ Section No./ Draft Reg. No.	Comment description	Proposal for Draft Regulation text editing (in red)	Rationale
DR45	Environmental Standards: consider what is contained in the rationale for guiding and assisting the Commission and the working group in the development of initial standards.		i) Collect data and comprehend metric of deepsea ecosystem and environmental components; ii) set objectives for the protection of the environment (ecosystem services - biodiversity, physicochemical conditions, socioeconomic components -); iii) assess the environmental risks and relevant protection strategies; iv) set reference norms and standards (e.g. ISO, EIA, and parametric concentrations of pollutants + target environmental concentrations); v) Set monitoring standards. Standards are the tool to support assessors and decisors to make their
DR45 (2)(a)	It is ineffective to attempt listing relevant environmental parameters before priority environmental standards are in place. The list must be revised once standards will be formulated. Consider including ecological health indexes. See also comment above (rationale).		

Jamaica

Regulation 45 Development of environmental Standards

DR 45 is described in the LTC Note, ISBA/25/C/18, as a "placeholder pending further discussion at the workshop to be held in Pretoria in May 2019." Jamaica looks forward to seeing the proposed text and will reserve its comments until such time.

Japan

Regulation 2: Fundamental policies and principles, Regulation 45: Development of Environmental Standards, Regulation 46: Environmental Management System: Regulation 47: Environmental Impact Statement, and Regulation 48: Environmental Management and Monitoring Plan

With regard to Environmental Standards, Environmental Management System, Environmental Impact Statement and Environmental Management and Monitoring Plan under regulations from 45 through 48, relationship between each respective issues is not clear at the present moment. Therefore, an entire picture including likely contents, outputs, workflow and primary implementing entity should be made clear before entering into a discussion of the respective Guidelines.

Mexico

Finalmente, para México es importante recalcar que las actividades de explotación deberán iniciar hasta y en la medida en que se tenga la reglamentación secundaria que la Comisión Jurídica y Técnica deberá elaborar como parte de sus facultades (**proyecto de artículos 45 y 47)**, en términos de lo establecido por el propio Código de Explotación y las decisiones del Consejo.

Micronesia

On Draft Regulation 45(a), the text should make clear that the listed examples of "environmental quality objectives" are non-exhaustive.

Morocco

Article 45 : Développement de normes environnementales	-Nécessité pour l'Autorité d'élaborer des normes juridiquement contraignantes pour une meilleure surveillance et évaluation des risques.

Russian Federation

Regulation 45, the first paragraph	Environmental Standards shall be developed in accordance with regulation 94 and shall include the following subject matters:	It is suggested to add words "*inter alia*" after the words "*shall include*", so that this provision reads as follows: "*Environmental Standards shall be developed in accordance with regulation 94 and shall include, inter alia, the following subject matters:*".	Amendment of this provision with the words "*inter alia*" is substantiated by the relevant changes to Regulation 94, as well as by the fact that at the moment it is impossible to specify a complete list of all necessary and relevant environmental standards (for example, the issue of the ocean noise is currently topical). Therefore, the list of issues that may be covered by environmental

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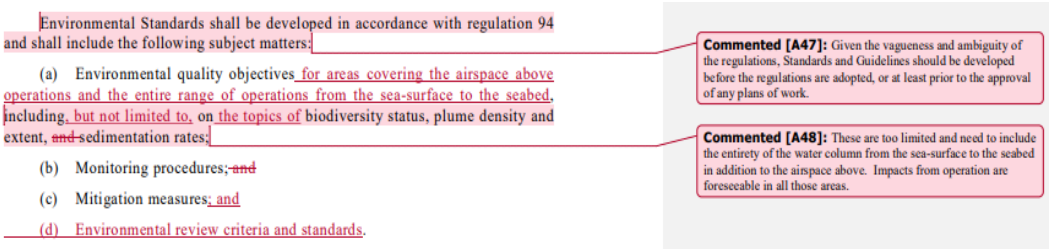
United States of America



Deep Ocean Stewardship Initiative

DR 45: Environmental Standards referring to DR94: such "Standards" will be important and legally powerful according to wording in DR 94 (legally binding to Contractors): have they been drafted? These should also be required for baseline studies. The environmental quality objectives shall be defined prior to the activity and cannot be limited to those stated. They also need to be achievable, and they need to be able to be monetized. See paper: https://doi.org/10.1016/j.marpol.2018.11.010.

DR 45: The subject matter of the Environmental Standards should not be limited to those listed. Perhaps the text should read "shall include, but are not limited to, the following subject matters". As exploitation activities occur, the need for different Environmental Standards may become apparent.

DR 45(a): Add the following: "(...) plume chemical composition, density and extent (...)".

Deep Sea Conservation Coalition

45	Development of Environmental Standards	The list of environmental standards is too narrow and the current list of environmental quality objectives, monitoring procedures and mitigation measures should (and will) be the subject of a workshop, and should be open ended.

Institute for Advanced Sustainability Studies

60. With respect to DR 45, we are of the view that the development of Environmental Standards are essential and should be adopted prior to the finalization of the Draft Regulations. Otherwise, there is a risk that this process may be compromised or undermined. Further, there needs to be clear wording to ensure that the list in DR 45 is not exhaustive. It should read: "[...] and shall include, inter alia, the following [...]".

61. Further, DR 45(a) should clarify what is meant by 'biodiversity status', and make specific reference to 'ecosystem functioning'.

The Pew Charitable Trusts

~~Develop incentive structures~~**Regulation 45**

Development of Environmental Standards

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

(a) Environmental quality objectives, including ~~market-based instruments that support and enhance the~~ on biodiversity status, plume density and extent, and sedimentation rates;

DR45(a)'s list of proposed environmental quality objectives would benefit from the preface: "*including **but not limited to***" as this is a somewhat *ad hoc* and brief list.

(b) Monitoring procedures; and

~~(b)~~(c) Mitigation measures.

More explanation as to the difference between 'Environmental Standards' and 'Standards' could be helpful.

This list may need to be reviewed following discussion (and the ISA's review of the May 2019 Pretoria workshop outcomes). For example, '*Mitigation measures*' may be better expressed as '*Mitigation of environmental harm*' as a Standard on mitigation may be outcome-focussed, rather than prescriptive as to 'measures'.

Regulation 46

Environmental management system

1. A Contractor shall implement and maintain an environmental management system, taking account of the relevant Guidelines.

2. An environmental management system shall:

(a) Be capable of delivering site-specific environmental objectives and Standards in the Environmental Management and Monitoring Plan;

(b) Be capable of cost-effective, independent auditing by recognized and accredited international or national organizations; and

(c) Permit effective reporting to the Authority in connection with environmental performance.

I - Members of the International Seabed Authority

Australia

2. An environmental management system shall:

(a) Be capable of delivering site-specific environmental objectives and Standards in the Environmental Management and Monitoring Plan;

(b) Be capable of cost-effective, independent auditing by recognized and accredited international or national organizations; and

(c) Permit effective reporting to the Authority in connection with environmental performance.

(d) Be in accordance with Good Industry Practice and internationally recognised standards.

Canada

(b) Be capable of cost-effective, independent auditing by recognized and accredited international or national organizations acceptable to the Authority; and

(c) Permit effective reporting to the Authority in connection with environmental performance.

China

16. Draft regulation 46

There are many ambiguities regarding the "environmental management system" stipulated in this regulation. It is necessary to further clarify who is to establish the environmental management system, what to be included in the system and who shall entrust the independent audit.

Costa Rica

1.The Authority will develop a document that will set the binding minimum Standards for an Environmental Management System.

1.bis A Contractor shall implement and maintain an environmental management system, in compliance with the Standards mentioned in paragraph 1 and taking account of the relevant Guidelines.

RATIONALE: Contractors should follow a standardized document setting the minimum requirements for the Environmental Management System,

2. An environmental management system shall:

(a) Deliver site-specific environmental objectives and Standards in the Environmental Management and Monitoring Plan;

(b) Be audited by an independent recognized and accredited international or national organizations; and

(c) Permit effective reporting to the Authority in connection with environmental performance.

RATIONALE: The system shall deliver the environmental objectives and be audited. Not just "be capable of".

France

Projet d'article 46 – Système de management environnemental : Nous notons que les critères et principes correspondant à ce projet d'article feront l'objet d'une directive. En effet, en l'état, le projet d'article est confus et nécessite d'être clarifié. En particulier, les notions de « système de *management* environnemental » et de « plan de gestion de l'environnement et de suivi » mériteraient toutes deux d'être définies pour plus de clarté (pour l'heure, seule une proposition de définition du plan de gestion de l'environnement et de suivi a été envisagée).

De manière plus générale, la similarité entre les formules « système de management environnemental », « plan de gestion de l'environnement et de suivi », « plan régional de gestion de l'environnement », « notice d'impact environnemental », « étude d'impact sur l'environnement » peut prêter à confusion. Il serait utile de recourir à des expressions qui permettrait de les distinguer plus aisément les unes des autres.

Japan

Regulation 2: Fundamental policies and principles, Regulation 45: Development of Environmental Standards, Regulation 46: Environmental Management System: Regulation 47: Environmental Impact Statement, and Regulation 48: Environmental Management and Monitoring Plan

With regard to Environmental Standards, Environmental Management System, Environmental Impact Statement and Environmental Management and Monitoring Plan under regulations from 45 through 48, relationship between each respective issues is not clear at the present moment. Therefore, an entire picture including likely contents, outputs, workflow and primary implementing entity should be made clear before entering into a discussion of the respective Guidelines.

Micronesia

15. On Draft Regulation 46(2)(a), the FSM queries the definition of "environmental objectives" as well as the soundness of allowing a Contractor to identify such objectives on its own as part of the relevant environmental management system, as strongly implied by the text. As a corollary, there needs need to be clarity as to whether all Contractors should follow a particular template when it comes to developing an environmental management system—perhaps a template identified in Guidelines or Standards.

Morocco

Article 46 : Système de management environnemental	-Nécessité d'élaboration de directives à l'intention des entrepreneurs. -Clarification des concepts distincts de systèmes de management de l'environnement.

II - Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

Deep Ocean Stewardship Initiative

DR 46: The purpose of the Environmental Management System should be stated.

DR 46: The draft Regulations should specify (or refer to Standards that specify) global environmental goals and objectives for activities in the Area. DR 46 seems to imply that Contractors set their own project-specific objectives, without specifying any higher-order goals and objectives that can inform project-specific planning.

DR 46(1): There should be a reference to the Guidelines.

DR 46(2)(a): Add the following: "(...) site-specific and regional environmental (...)".

DR 46(2)(b): Pleased to see that the Environmental Management System is expected to include means for independent auditing.

Deep Sea Conservation Coalition

46	Environmental Management System	This should allow for alteration. The regulations should require the ISA to issue a Standard document setting out minimum requirements for an EMS, and should require compliance by contractors with that Standard.

Institute for Advanced Sustainability Studies

62. Similarly, the Guidelines mentioned in DR 46 are also essential and must be in place before the Draft Regulations are finalized. Further, we recommend that "Guidelines" here be replaced with "Standards".

The Pew Charitable Trusts

1. A Contractor shall implement and maintain an environmental management system taking account of the relevant Guidelines.

2. An environmental management system shall be:

(a) Capable of delivering site-specific environmental objectives and Standards in the Environmental Management and Monitoring Plan;

(b) Capable of cost-effective, independent auditing by recognized and accredited international or national organizations; and

~~(a)~~(c) Permit effective reporting to the Authority in connection with environmental performance ~~of Contractors, including technology development and innovation.~~ .

Consideration could be given to amending DR 46(1) to refer to well-established existing international standards in this area. For example: "*A Contractor shall implement and maintain an environmental management system, **consistent with ISO 14001 or other similar internationally recognised standard**, and taking account of the relevant Guidelines*."

Is the reference to '***Standards** in the Environmental and Monitoring Plan*' [DR46(2)(a)] correct? According to Schedule 1 and DR94, Standards are legally binding instruments adopted by Council. It is unclear how these could be found in a Contractor's Plan.

'Environmental objectives' are referenced three times in the draft Regulations [DR 2(e)(i), DR46(2)(a) and Annex VII paragraph 2(a)]. The meaning of that term is not elaborated, but from the nature of those references, it appears they refer to and envisage every Contractor developing its own environmental objectives for each Plan of Work. Elaboration of when and how these objectives are set might be helpful. Consideration should also be given to the ISA's setting of its own strategic environmental objectives, and requiring that Plans of Work be evaluated against those objectives. A Contractor-led, project-specific approach to environmental objectives, without additional standard-setting by the ISA, could lead to different standards for environmental performance for different Contractors. It is also possible that environmental objectives determined by a Contractor will miss elements critical to protection of the marine environment. ISA leadership is needed here.

DR46(2)(b) may benefit from further consideration. The provision as worded does not incorporate a requirement that auditing must occur, and it is unclear why 'cost-effective' is included in this sub-paragraph. A reformation could be: "*Audited by an independent, recognised and accredited international or national organisation on a periodic basis, as agreed in the EMMP.*"

Section 2
Preparation of the Environmental Impact Statement and the Environmental Management and Monitoring Plan

Regulation 47
Environmental Impact Statement

1. The purpose of the Environmental Impact Statement is to document and report the results of the environmental impact assessment. The environmental impact assessment:

(a) Identifies, predicts, evaluates and mitigates the biophysical, social and other relevant effects of the proposed mining operation;

(b) Includes at the outset a screening and scoping process, which identifies and prioritizes the main activities and impacts associated with the potential mining operation, in order to focus the Environmental Impact Statement on the key environmental issues. The environmental impact assessment should include an environmental risk assessment;

(c) Includes an impact analysis to describe and predict the nature and extent of the Environmental Effects of the mining operation; and

(d) Identifies measures to manage such effects within acceptable levels, including through the development and preparation of an Environmental Management and Monitoring Plan.

2. An applicant or Contractor, as the case may be, shall prepare an Environmental Impact Statement in accordance with this regulation.

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

(a) Inclusive of a prior environmental risk assessment;

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

(c) In accordance with the objectives and measures of the relevant regional environmental management plan; and

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

I - Members of the International Seabed Authority

Australia

Regulation 47
Environmental Impact Statement

1. The purpose of the Environmental Impact Statement is to document and report the results of the environmental impact assessment. **~~The~~ An** environmental impact assessment **is mandatory.**

***Ibis*. The environmental impact assessment shall**:

(aa) Be informed by relevant baseline data that captures temporal and seasonal variation;

(a) Identify**[~~ies~~]**, predict**[s]**, evaluate**[s]** and mitigate**[s]** the biophysical, social and other relevant effects of the proposed mining operation;

(b) Include**[s]** at the outset a screening and scoping process, which identifies and prioritizes the main activities and impacts associated with the potential mining operation, in order to focus the Environmental Impact Statement on the key environmental issues. The environmental impact assessment should include an environmental risk assessment;

(c) Include**[s]** an impact analysis to describe and predict the nature and extent of the Environmental Effects of the mining operation; and

(d) Identify**[~~ies~~]** **avoidance and mitigation** measures to manage such effects within acceptable levels, including through the development and preparation of an Environmental Management and Monitoring Plan

(e) Include evidence of consultation with relevant coastal States in close proximity to the proposed Mining Area

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

Commented [AUS67]: Australia welcomes the increased detail in the March 2019 iteration of the draft regulations regarding Environmental Impact Statements (EIS). We also support the Commission's accompanying comment that the detailed requirements for the scoping stage, including the associated process of environmental impact assessments (EIA) should be detailed under the exploitation regime (ISBA/25/C/18).

Noting that the LTC recommends the priority development of guidelines and standards for EIAs and the preparation of an EIS, Australia proposes that the exploitation regulations and/or legally binding standards should, at a minimum:

a) clearly identify the stages of EIA in the regulations, particularly the screening stage, the assessment (or scoping) stage and the approval stage;
b) articulate the roles of the applicant or Contractor, the Authority and the Sponsoring State in the EIA preparation, assessment and approvals process;
c) provide for public consultation on draft EIAs as part of the approval process and for EIAs to be made publicly available once approved (rather than just rely on the public consultation of the EIS in draft regulation 11);
d) require consultation with relevant coastal states in the EIA process;
e) include an explicit provision enabling the LTC to require that certain conditions relating to mitigation of environmental impacts are included in EMMPs; and
f) specify the minimum requirements for baseline data, including collecting data over multiple years to capture temporal and seasonal variation.

Canada

Regulation 47
Environmental Impact ~~Statement~~Assessment

1. The purpose of the Environmental Impact Statement is to document and report the results of the environmental impact assessment. The environmental impact assessment:

(a) Identifies, predicts, evaluates and mitigates the ~~biophysical~~physical, chemical, biological, social and other relevant effects of the proposed mining operation;

(b) ~~Includes at the outset a screening and scoping process, which i~~Identifies and prioritizes the main activities and impacts associated with the potential mining operation, in order to focus the ~~Environmental Impact Statement~~assessment on the key environmental issues. The environmental impact assessment ~~should~~ shall include public consultation in various key steps of the process~~an environmental risk assessment~~;

(c) Includes an impact analysis to describe and predict the nature and extent of the d~~E~~nvironmental ~~Effects~~ risks and impact of the mining operation; and

(d) Identifies measures to manage such effects within acceptable levels, including through the development and preparation of an Environmental Management and Monitoring Plan.

(e) Shall be conducted in accordance with the applicable Guidelines, Good Industry Practice, Best Available Scientific Evidence, Best Environmental Practices and Best Available Techniques.

2. Preparation of the environmental impact assessment shall include steps below:

(a) Screening to determine whether an environmental impact assessment is required for the proposed development;

(b) Scoping to identify key environmental and other relevant issues, including potential cumulative impact;

(c) Impact prediction and evaluation using best available scientific results from environmental risk assessments and information from the public consultation;

(d) Mitigation, prevention and management of potential adverse impacts to identify measures to prevent or mitigate significant adverse impacts of a proposed development;

(e) Preparation of Environmental Impact Statement to document and report the results of the assessment;

(f) Environmental Impact Assessment Decision.

~~An applicant or Contractor, as the case may be, shall prepare an Environmental Impact Statement in accordance with this regulation.~~

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

(a) Inclusive of a prior environmental risk assessment;

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

(c) In accordance with the objectives and measures of the relevant regional environmental management plan; and

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

Chile

Chile sugiere incluir, dentro de los propósitos de la declaración, comunicar además de los resultados, la **metodología de evaluación**.

Además de incluir el análisis de impacto, su **caracterización, situación base y diagnóstico,** en este punto **es necesario determinar y caracterizar el área de influencia, directa e indirecta**, de la zona a explotar. Asimismo, precisar ¿**Qué se entenderá y cómo se definirán los niveles aceptables**? El Reglamento debe especificar estos criterios.

Es necesario establecer, asimismo:

¿Cómo o de qué manera se considera la situación previa a la exploración?

¿Cuál es la situación base que se considera para la identificación y caracterización de los impactos?

En cuanto a los resultados de la evaluación del impacto ambiental, tal como se mencionó previamente, **se debe incluir la metodología empleada. Idealmente,** la **Autoridad debería proporcionar metodologías base para tener resultados comparables**.

El utilizar metodologías estandarizadas y a su vez explicarlas dentro de la declaración de impacto ambiental, permitirá disponer de **resultados comparables**.

Sobre el **literal d) del numeral 3) las buenas prácticas del sector, los mejores conocimientos científicos disponibles, y las mejores técnicas disponibles, debieran estar basados o respaldados en estándares vigentes a nivel internacional, y/o por metodologías estandarizadas.**

Es un tema que debe adecuarse también a lo que actualmente se está desarrollando en BBNJ.

China

It is suggested to modify subparagraph 3 (c) as "in accordance with the objectives and measures of the relevant existing regional environmental management plan". The reason for adding "existing" here is that although the regional environmental management plan can serve as a prerequisite for deep seabed exploitation, its absence should not hinder the application of a Plan of Work .

Costa Rica

(b) Includes at the outset a screening and scoping process, which identifies and prioritizes the main activities and impacts associated with the potential mining operation, in order to focus the Environmental Impact Statement on the key environmental issues. The environmental impact assessment should include an environmental risk assessment that takes into consideration the region as a whole, in accordance with the objectives and measures of the relevant REMP.

RATIONALE: EIA and EIS shall be coherent and both shall include the provision of complying with the relevant REMP's objectives and measures.

(c) Includes an impact analysis to describe and predict the nature and extent of the Environmental Effects of the mining operation; and

(d) Identifies measures to manage such effects within acceptable levels, including through the development and preparation of an Environmental Management and Monitoring Plan.

1.bis The minimum mandatory stages for the development of an Environmental Impact Assessment are:

a. Screening: a process to determine which activities will be subject to an EIA.

b. Scoping: a process to identify the specific environmental issues or concerns to be included in the assessment, including the determination of the alternatives.

i.Consideration of alternatives

ii.Regulatory review

iii.Baseline study review to ensure sufficiency of information to do the EIA

iv.Risk assessment

v.Mitigation , impact management and residual risk assessment

c. Preparation of draft EIA

d. Review of the draft EIA by experts

e. Review of EIA by stakeholders

f. EIA Report

g. Draft Environmental Management and Monitoring Plan

h. Decision Making

   i. Permit to proceed

   ii.Not permit to proceed

   iii. Requiere applicant to re-do aspects of EIA or EMMP

i. Follow up measures including biennial monitoring of the impact during the process and every 5 years after it has been completed

RATIONALE: The regulations need to include more details on the EIA, at least the steps, who is responsible for each phase, etc. This needs further discussion but Costa Rica proposes at least the steps included supra. This shall be further detailed in an Annex, together with the binding Standards.

France

Projets d'articles 47, 48 et 55 : La formule actuellement employée des « données scientifiques les plus sûres » doit être remplacée par la formule habituellement consacrée des « **meilleures données scientifiques disponibles** » pour éviter toute confusion et divergence d'interprétation. Cela permettra également de remettre en cohérence les versions linguistiques française et anglaise et de coïncider avec les définitions proposées à la fin du projet de règlement.

Projet d'article 47 – Notice d'impact sur l'environnement : L'actuel projet d'article est susceptible de créer une confusion entre les notions d'évaluation environnementale et de notice d'impact (*environmental impact statement* en anglais). Des clarifications devraient être apportées au sujet de ces notions (champs géographique et thématique de chacune d'elles). Nous notons également qu'en l'état actuel du projet, l'étude d'impact sur l'environnement vise également à déterminer les conséquences sociales de l'activité d'exploitation proposée. Or l'étude d'impact sur l'environnement ne devrait être établie qu'à l'aune de critères strictement environnementaux, sous peine d'affaiblir la démarche environnementale.

Une distinction claire entre les études d'impact environnemental et les notices d'impacts sur l'environnement pourrait également être effectuée en consacrant à chacune de ces notions un projet d'article distinct.

Au projet d'**article 47, paragraphe 1er,** alinéa b, le terme « devrait » – *should* en anglais – doit par ailleurs être remplacé par « devra » – *shall* –, l'inclusion d'une évaluation des risques au sein de l'étude d'impact sur l'environnement n'étant pas facultative, conformément au paragraphe 3, alinéa a dudit article.

Germany

- In relation to **Draft Regulation 47**, Germany proposes the following changes.

Draft Regulation 47:
"1. The purpose of the Environmental Impact Statement (EIS) is to document and report the results of the environmental impact assessment process (EIA process). The EIA process: […] (b) Includes at the outset a screening and scoping process, which identifies and prioritises the main activities and impacts associated with the potential mining operation in order to focus the EIS on the key environmental issues. This should be based on the prior testing of equipment and operations in the mining area under application and include an environmental risk assessment; […]. 4. The EIS shall demonstrate that the activity is in accordance with all relevant environmental Standards and with the requirements of the applicable Regional Environmental Management Plan."

Italy

Part No./ Section No./ Draft Reg. No.	Comment description	Proposal for Draft Regulation text editing (in red)	Rationale
DR47	For the nature of the deep sea exploitation mining activities and the high degree of scientific uncertainties on the effects of such activities on the deep sea natural environment, we strongly believe that Environmental Impact Statement (EIS) is not the most appropriate tool to effectively manage the environmental issues and risks associated to the development of deep sea mining operations. Instead we consider the Environmental Impact Assessment (EIA) process as regulated under the *Directive 2014/52/EU of 16 April 2014 on the assessment of the effects of certain public and private projects on the environment* a more appropriate decision making tool to ensure that an effective high level of protection of the environment and human health is maintained. Compared to EIS, EIA is a more comprehensive and participated assessment process compared to a document (EIS) describing the environmental residual effects after mitigations. In particular, EIA requires that public and private projects that are likely to have significant effects on the environment be made subject to an assessment prior to Development Consent being given. Development Consent means the decision by the Competent Authority or authorities that entitles the Developer to proceed with the Project. In terms of the effectiveness of the approval process, the Commission would also benefit a lot of the EIA approach since it will allow the Commission to closely and effectively follow all the process steps and to contribute to the assessment process in a proactive manner, while the EIS would charge the Commission	Amend DR 47 in order to replace EIS with the concept of EIA, as described, for istance in EU Directive 2014/52/EU. Implementation of revised Regulation 47 may affect also regulations of section 3 and 4 (DR 10 to 14) as well as DR 48 which should be amended accordingly, where required.	**Fundamental differences between Environmental Impact Statement (EIS) and Environmental Impact assessment (EIA) process are summarised hereafter.** The (Environmental Impact Statement) EIS is a report mandated by the US National Environmental Policy Act of 1969 (NEPA), to assess the potential impact of actions "significantly affecting the quality of the human environment." The NEPA mandate includes the assessment of impacts on the physical, cultural, and human environments. Nevertheless, this requirement under NEPA does not prohibit harm to the environment, but rather requires advanced identification and disclosure of harm. • EIS is meant to be a comprehensive decision-making tool for federal, state, and local policy makers, and to inform the public about proposed projects that could affect the environment. • EIS is a closed package document the proponent submits to the competent authority describing the effects for proposed activities on the environment. The EIS mandate includes the assessment of impacts on the biological, physical, cultural, and human environments, nevertheless, in the way how EIS is conceived this requirement does not prohibit harm to the environment, but rather requires advanced identification and disclosure of harm. In other words, EIS is a regulatory requirement which cannot influence the decision on the project. • EIS does not include a scoping phase participated with the key stakeholders • EIS includes results of public consultation with stakeholders conducted to inform the public about proposed projects that could affect the

Jamaica

Regulation 47 Environmental Impact Statement
DR 47 now includes reference to a scoping *process*. The LTC Note, ISBA/25/C/18, clarifies that requirements of the scoping stage should be detailed under the exploration regime. The exploration regulations (regulation 1(5)) refer to the adoption of supplemental rules, regulations and procedures especially with respect to the protection and preservation of the marine environment. We therefore understand that supplemental rules to the exploration regulations are contemplated and are being prepared.

Japan

<Regulation 47>

1. The purpose of the Environmental Impact Statement is to document and report the results of the environmental impact assessment. The environmental impact assessment:

(a)Identifies, predicts, evaluates and mitigates the biophysical, other relevant effects of the proposed mining operation;

(b)Includes at the outset a screening and scoping process, which identifies and prioritizes the main activities and impacts associated with the potential mining operation, in order to focus the Environmental Impact Statement on the key environmental issues. The environmental impact assessment should include an environmental risk assessment;

(c)Includes an impact analysis to describe and predict the nature and extent of the Environmental Effects of the mining operation; and

(d)Identifies measures to manage such effects within acceptable levels, including through the development and preparation of an Environmental Management and Monitoring Plan.

2. An applicant or Contractor, as the case may be, shall prepare an Environmental Impact Statement in accordance with this regulation.

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

(a) Inclusive of a prior environmental risk assessment;

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

(c)In accordance with the objectives and measures of the relevant regional environmental management plan; and

(d)Prepared in accordance with the applicable Regulations on Prospecting and Exploration and Guidelines, Good Industry Practice, Best Available Scientific Evidence, Best Environmental Practices and Best Available Techniques, based on the results of the consultation conducted in accordance with the relevant Guidelines.

Micronesia

On Draft Regulation 47, as a general matter, the FSM welcomes robust text on a process for conducting environmental impact assessments ("EIAs"). International law—including as reflected in UNCLOS—imposes clear obligations on States (including the entities under their jurisdiction or control) to conduct EIAs in connection with activities that cross a certain threshold of harm to the natural environment, including the Ocean. It is vital that the Draft Regulations as a whole contain appropriate language in this regard. In the FSM's view, the process for an EIA (including decision-making) should be legally binding and transparent to ensure predictability and public confidence; articulate roles for a Contractor, sponsoring State, and the ISA; provide for public consultation of draft EIAs as part of the approval process; require publication of EIAs once approved; have specific reference to consultations with relevant coastal States, including adjacent coastal States; allow for public review and comments; provide space for the use of independent experts to aid in the preparation and/or review of EIAs; and highlight efforts taken by a proponent Contractor to mitigate environmental harms identified in the EIA process.

Additionally, the FSM welcomes the reference to Best Environmental Practices in Draft Regulation 47(3)(d) as being part of the consideration when preparing an Environmental Impact Statement. As noted above, the traditional knowledge of IPLCs as well as the holders of such traditional knowledge should be viewed as part of such Best Environmental Practices. The FSM welcomes a standalone reference to such traditional knowledge in this text, but at a minimum, such traditional knowledge (as well as its holders) should be reflected as part of the definition of Best Environmental Practices.

Morocco

Article 47 : Notice d'impact sur l'environnement	-Veiller à ce que les déclarations d'impact sur l'environnement correspondent aux REMP existants.

Republic of Korea

2.4. Part IV Protection and preservation of the Marine Environment

- In Regulation 47 para 1 (b), screening and scoping process is reintroduced. We would like to ask for clarification of LTC whether the environmental impact assessment at the exploration phase cannot be seen as the process under Regulation 47 para 1 (b), and whether these procedures regarding environmental impact assessment are compatible with each other.

Russian Federation

29.	**Regulation 47(2)**	An applicant or Contractor, as the case may be, shall prepare an Environmental Impact Statement in accordance with this regulation.	It is suggested to amend this provision with the words "*based on the results of the environmental impact assessment*" before the words "*shall prepare*" and read it is follows: "*An applicant or Contractor, as the case may be, based on the results of the environmental impact assessment shall prepare an Environmental Impact Statement in accordance with this regulation*".	Amendment is suggested so that this provision better reflects the content of the Regulation 47.

Spain

CUARTA.- **ARTÍCULOS 47 Y 48**

Según se desprende del **párrafo 2 del artículo 47**, el solicitante o contratista preparará una "declaración de impacto ambiental". Sin embargo, no se menciona que la Autoridad hará la evaluación y posible concesión en base a esta declaración como si figura en el Anexo IV. En consecuencia, se sugiere una nueva redacción.

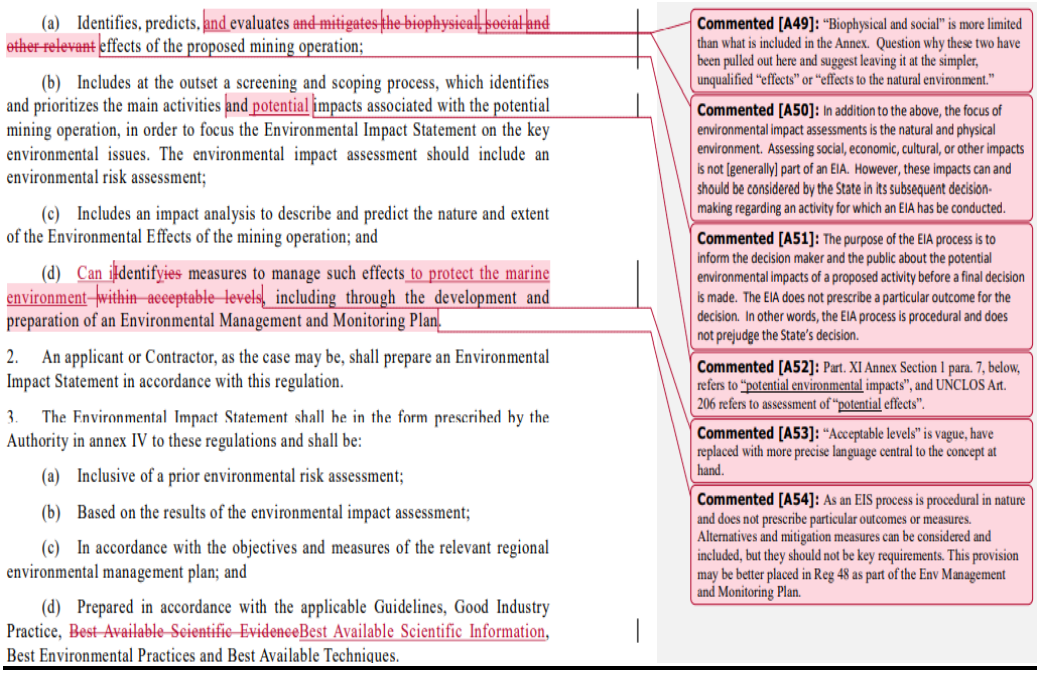
Los **artículos 47 (3) (c) y 48 (3) (b)** mencionan que la Declaración de impacto ambiental y el Plan de gestión y vigilancia ambiental deberán estar en consonancia con los Planes de gestión ambiental regional pertinentes. Sin embargo, en el proyecto de reglamento no se menciona expresamente que la existencia de los planes de gestión ambiental debe ser una condición necesaria para la aprobación de los contratos de explotación. Se sugiere una mención expresa al respecto.

United Kingdom

47. Environmental Impact Statement	(a) Identifies, predicts, evaluates and mitigates the biophysical, social and other relevant effects of the proposed mining operation;	(a) Identifies, predicts, evaluates and mitigates the ~~biophysical~~ physiochemical and biological, social and other relevant effects of the proposed mining operation;	Change to align with wording elsewhere in the Regulations and existing EIA Framework.
	(c) Includes an impact analysis to describe and predict the nature and extent of the Environmental Effects of the mining operation; and	(c) Includes an impact analysis to describe and predict, among others, the spatial and temporal nature and extent of the Environmental Effects of the mining operation, including cumulative impacts'; and	As above

II - Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

Unites States of America



(a) Identifies, predicts, and evaluates ~~and mitigates the biophysical, social and other relevant~~ effects of the proposed mining operation;

(b) Includes at the outset a screening and scoping process, which identifies and prioritizes the main activities and potential impacts associated with the potential mining operation, in order to focus the Environmental Impact Statement on the key environmental issues. The environmental impact assessment should include an environmental risk assessment;

(c) Includes an impact analysis to describe and predict the nature and extent of the Environmental Effects of the mining operation; and

(d) Can identify~~ies~~ measures to manage such effects to protect the marine environment ~~within acceptable levels~~, including through the development and preparation of an Environmental Management and Monitoring Plan.

2. An applicant or Contractor, as the case may be, shall prepare an Environmental Impact Statement in accordance with this regulation.

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

(a) Inclusive of a prior environmental risk assessment;

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

(c) In accordance with the objectives and measures of the relevant regional environmental management plan; and

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

Commented [A49]: "Biophysical and social" is more limited than what is included in the Annex. Question why these two have been pulled out here and suggest leaving it at the simpler, unqualified "effects" or "effects to the natural environment."

Commented [A50]: In addition to the above, the focus of environmental impact assessments is the natural and physical environment. Assessing social, economic, cultural, or other impacts is not [generally] part of an EIA. However, these impacts can and should be considered by the State in its subsequent decision-making regarding an activity for which an EIA has be conducted.

Commented [A51]: The purpose of the EIA process is to inform the decision maker and the public about the potential environmental impacts of a proposed activity before a final decision is made. The EIA does not prescribe a particular outcome for the decision. In other words, the EIA process is procedural and does not prejudge the State's decision.

Commented [A52]: Part. XI Annex Section 1 para. 7, below, refers to "potential environmental impacts", and UNCLOS Art. 206 refers to assessment of "potential effects".

Commented [A53]: "Acceptable levels" is vague, have replaced with more precise language central to the concept at hand.

Commented [A54]: As an EIS process is procedural in nature and does not prescribe particular outcomes or measures. Alternatives and mitigation measures can be considered and included, but they should not be key requirements. This provision may be better placed in Reg 48 as part of the Env Management and Monitoring Plan.

Secretariat of the Convention of Biological Diversity

37	47	Work under the CBD to facilitate the description of ecologically or biologically significant marine areas (EBSAs), can prove very useful in the development of the environmental impact statement, in particular with regards to providing a description of the existing biological environment (as referred to in section 5 of annex IV). In this regard, section 5 of annex IV may be revised as follows: "**5. Description of the existing biological environment** The description of the site should be divided by depth regime (surface, midwater and benthic, where appropriate), and provide a description of the various biological components and communities that are present in or utilize the area ***and the ecological and or biological significance of these components***. The detail in this section is expected to be based on a prior environmental risk assessment that will have identified the main impacts, and thus the elements that need to be emphasized in the environmental impact assessment."
37	47	With regards to the development of Environmental Impact Statements, the CBD voluntary guidelines for the consideration of biodiversity in environmental impact assessments and strategic environmental assessments in marine and coastal areas (as contained in

		UNEP/CBD/COP/11/23) provides guidance on biodiversity considerations of each step of the EIA process. In particular, it highlights key questions and considerations to be addressed in each step of the EIA process with regards to potential impacts on biodiversity, including specific considerations in the open-ocean and deep-sea.

Deep Ocean Stewardship Initiative

DR 47(1)(a): "…mitigates the biophysical, social and other relevant effects of the proposed mining operation." The term "physical" often refers to physical oceanography, not the physical habitat itself. It would be more accurate to change "biophysical" to "biotic and abiotic", or "biological and abiotic".

DR 47(1)(b): The scoping process should include a review of the applicant's environmental baseline studies from the exploration phase.

DR 47(1)(c): Includes an impact analysis to describe and predict the nature and extent of the Environmental Effects of the mining operation. Add: "including how climate change will affect those predictions".

DR 47(1): Add the following: (e) clearly identify where scientific knowledge gaps exist and define to what degree these may influence the overall impact analysis and impact assessment.

DR 47(2): "An applicant or Contractor, as the case may be, shall prepare an Environmental Impact Statement in accordance with this regulation." What timeframe is this expected to occur within?

DR 47(3)(d): "…Be prepared in accordance with the applicable Guidelines, Good Industry Practice, Best Available Scientific Evidence and Best Available Techniques." It is difficult to evaluate how effective this will be without having access to the Guidelines.

Deep Sea Conservation Coalition

47	EIS	While the EIA process has finally been introduced, there is no clarity even over who is responsible for overseeing the EIA process and who carries out the EIA, other than stating that the applicant or contractor prepares the EIS. The EIA is still a shell and needs to be completely rewritten. Scoping has finally been re-inserted, which is a good thing, but for instance, specific provision needs to be added for a standard on baselines, requirement for adequate baselines and review when baseline information is inadequate. This Regulation requires major review. There is no public review included. It cannot be left to the public review of the EIS in DR 11. A hearing process needs to be included, as does provision for independent scientific advice. More detail is needed on assessing the completeness of documents, expert/independent scientific review, revision of the environmental documents prior to the DR 11 review, hearings etc DR 47 should include alternative options including the no-action alternative and measures to avoid impacts where possible. DR 47 should also include a requirement that the EIA clearly demonstrates that a loss of biodiversity will be prevented. This draft assumes only one EIA: but it is highly likely the contractor has undertaken baseline studies for part of contract area - mining will likely occur at multiple stages and/or at various sites within one contract area. In DR 47(1) (d), there are no standards to assess 'acceptable' levels of effects.

63. We are confused and concerned by DR 47 in its entirety. DR 47 requires the Applicant to prepare an Environmental Impact Statement (EIS), but nowhere in the Draft Regulations is it stipulated that the Authority needs to get involved in order to complete the Environmental Impact Assessment (EIA) process. While we acknowledge that the LTC is required under DR 11 to review Environmental Plans (which include the EIS) and prepare a report for the Council, we consider this as grossly insufficient, particularly because this function falls way short of having a separate EIS approval mechanism. We are of the view that LTC, or even better the Environment and Scientific Committee or an independent external expert (see General Observations in Section A), must evaluate and either determine, based on an assessment of the EIS in accordance with a predetermined assessment framework, whether to endorse or refuse the EIS. In the case of an endorsement, the Authority shall put the EIS and its assessment report on the website for public consultation, in accordance with DR 11(1). In the case of a refusal, the applicant will have to resubmit another EIS in accordance with the feedback it has received from the Authority. This will be subjected again to the same assessment process. Accordingly, we recommend a new provision in the form of DR 47 bis, requiring the Authority to play an active role in assessing the EIS, i.e. to review the EIS in accordance with a predetermined assessment framework, and to make a determination as described earlier.

64. Further, there should be a new DR 47(1)(c bis), which states: "Identifies and evaluates the potential environmental impacts that could occur outside the contract area, in particular, the potential transboundary impacts that could be inflicted on adjacent coastal states

65. DR 47(d) refers to the words "acceptable levels", however, there is no indication of what this entails.

The Pew Charitable Trusts

Section ~~1 bis~~

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

~~Environmental Management and Monitoring Plan~~

~~Draft regulation 46 bis~~

Regulation 47

Environmental Impact Statement

1. The purpose of the Environmental Impact Statement (EIS) is to document and report the results of the environmental impact assessment process~~, which identifies~~ (EIA process). The EIA process:

(a) Identifies, predicts, evaluates and mitigates the biophysical, social and other relevant effects of the proposed mining operation~~. It is the result of several activities, which include an environmental risk assessment to determine the main issues and impacts, an impact analysis to predict the nature and extent of the Environmental Effects of the mining operation and the identification of measures to manage such effects within acceptable levels.~~;

(b) Includes at the outset a screening and scoping process, which identifies and prioritises the main activities and impacts associated with the potential mining operation in order to focus the EIS on the key environmental issues. This should include an environmental risk assessment;

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

To avoid ambiguity, the Regulations should also expressly state that for the purposes of EIA/EIS, 'Best Environmental Practices' includes the collection of adequate quantity and quality baseline data. The ISA should issue Standards to provide further details as to the baseline data that are required from Contractors.

See Code Project Short Paper June 2019: Baselines

(c) Includes an impact analysis to describe and predict the nature and extent of the Environmental Effects of the mining operation; and

~~(b)~~(d) Identifies measures to manage such effects within acceptable levels, including through the development and preparation of an Environmental Management and Monitoring Plan.

This EIA / EIS section of the draft Regulations (DR47) benefits from helpful additional detail, including the re-introduction of a scoping phase. But questions remain regarding the EIA process across the Exploration and Exploitation phases, and details of how scoping will be carried out.

'Scoping' usually refers to an assessment of the adequacy of a planned EIA and baseline datasets before an EIA is undertaken. It is important as it enables early intervention to correct sub-standard EIA processes, and helps Contractors avoid expending resources on unnecessary or misguided research. Moreover, it provides comfort that a future EIS will not be rejected by the ISA for procedural flaws. As such, the scoping procedure should be further elaborated, setting out details of the scoping report requirements, mandatory stakeholder engagement and public consultation process, a process for gaining additional information, and where necessary, independent scientific advice, and an approval process (before the EIA progresses). In its note, the Commission suggested that "*requirements for such scoping stage, including associated processes, should be detailed under the exploration regime*." [ISBA/25/C/18] This makes sense where the necessary activities will in practice be carried out under an Exploration contract. The Commission does not indicate what instrument or organ of the ISA will do this.

'Screening' is not explained further in the Regulations, but in environmental law the term usually refers to the assessment of which types of activities trigger an EIA requirement (and which can be performed without an EIA). The screening function is currently covered to some extent by document ISBA/19/LTC/8 'Recommendations for the guidance of Contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area'. Priority should be given to supplementing this existing framework with a commitment that is (a) legally binding, and (b) applies to EIAs that are required for Exploitation applications, and/or EIAs that may take place during an Exploitation contract.

DR47 is silent as to who is responsible within the ISA for overseeing the EIA process (which should involve frequent regulator-proponent contact unlikely to be satisfied by the ISA's current structure of semi-annual meetings). Nor does DR47 contain any stipulations about who carries out the EIA, nor a requirement for public review and/or hearings.

See Code Project Short Paper June 2019: EIA

2. An applicant or Contractor, as the case may be, shall prepare an ~~Environmental Impact Statement~~EIS in accordance with this regulation.

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

(a) Inclusive of a prior environmental risk assessment;

(b) Based on the results of the ~~environmental impact assessment;~~EIA process;

(c) In accordance with the objectives and measures of the relevant regional environmental management plan~~, if any~~; and

See earlier commentary for DR2(e) regarding need for more explicit Regulations regarding REMPs.

III - Stakeholders

Ecologistas en acción

3. Evaluación del Impacto Ambiental

La sección 1 bis sobre la Evaluación de Impacto Ambiental (EIA) es simplemente una coraza, pues es necesario que se desarrolle ampliamente y que incluya evaluaciones científicas independientes y un proceso de audiencias públicas.

Con ello, se deberían tener en cuenta los criterios como los que figuran en el párrafo 47 de las Directrices Internacionales para la Ordenación de las Pesquerías de Aguas Profundas en Alta Mar, aprobadas reiteradamente por la Asamblea General de las Naciones Unidas, incluida la resolución 71/123 (párr. 180 b) aprobada en 2016.

Regulation 48
Environmental Management and Monitoring Plan

1. The purpose of an Environmental Monitoring and Management Plan is to manage and confirm that Environmental Effects meet the environmental quality objectives and standards for the mining operation. The plan will set out commitments and procedures on how the mitigation measures will be implemented, how the effectiveness of such measures will be monitored, what the management responses will be to the monitoring results and what reporting systems will be adopted and followed.

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

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

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

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

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

I - Members of the International Seabed Authority

Canada

Regulation 48
Environmental Management and Monitoring Plan

1. The purpose of an Environmental Monitoring and Management Plan is to manage and confirm that ~~e~~Environmental ~~Effects~~ impacts meet the environmental quality objectives and standards for the mining operation. The plan will contain any conditions included in the environmental impact assessment decision and will set out commitments and procedures on how the mitigation measures will be implemented, how the effectiveness of such measures will be monitored, what the management responses will be to the monitoring results and what reporting systems will be adopted and followed.

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

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

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

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

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

Chile

Estos planes deben evaluarse conjuntamente con la evaluación de impacto ambiental para abordar la forma de gestionar los impactos de manera integral.

Es necesario tener en consideración que, respecto al Plan de Gestión y Vigilancia Ambiental, el propósito de éste debiera incluir la gestión de impactos identificados y procedimientos frente a aquellos no previstos.

¿A qué objetivos se refiere al afirmar que los efectos ambientales van a cumplir objetivos?

Resulta necesario clarificar cuáles serían las **normas de calidad ambiental,** especialmente porque las **normas de calidad ambiental** suelen tener, en la mayoría de los casos, un ámbito de aplicación territorial específico. Las medidas a aplicar en este sentido son de mitigación, pero ¿**se considerarían otros tipos de medidas para enfrentar los impactos ambientales**?

En el mismo sentido, podría explicitarse ¿**Qué ocurre en caso de incumplimiento de lo estipulado**? Se podría agregar qué, **las medidas que sean propuestas en este punto, deberían considerar los costos asociados al momento de establecerlas, de manera tal que pueda asegurarse su real implementación.**

Asimismo, es importante tener en consideración que **el contratista debería incluir en sus informes todo aquello relacionado con los efectos e impactos no identificados oportunamente.**

Se podrían considerar otras medidas además de las de mitigación.

Se sugiere agregar **prácticas de monitoreo y vigilancia de los efectos ambientales** y también, **que se tomen las medidas respectivas en caso de evidenciarse incumplimiento de lo pactado.** Además, para mantener la idoneidad del plan actualizado, podría ser positivo incorporar **mecanismos de revisión y control,** orientados al mejoramiento continuo (lo cual se relaciona con **la necesidad propuesta previamente de adoptar un mecanismo de sistema de gestión ambiental**).

Chile propone agregar un punto que obligue al contratista a financiar todos los gastos asociados para dar cumplimiento al Art. 38.

China

18. Draft regulation 48

It is suggested to amend subparagraph 3 (b) as "in accordance with the objectives and measures of the relevant existing regional environmental management plan". The reason for adding "existing" here is that although the regional environmental management plan can serve as a prerequisite for deep seabed exploitation, its absence should not hinder the application of a Plan of Work .

France

Projet d'article 48 – Plan de gestion de l'environnement et de suivi : Nous réitérons notre demande de **suppression de la formule « le cas échéant »** au paragraphe 3, alinéa 4, qui n'apparait plus dans la version anglaise du projet de règlement. Nous soulignons à nouveau le risque de confusion entre « plan de gestion de l'environnement et de suivi » et « plan régional de gestion de l'environnement ».

Germany

- In relation to **Draft Regulation 48**, Germany proposes the following changes.

Draft Regulation 48:
"[…] 3. The Environmental Management and Monitoring Plan shall cover the main aspects prescribed by the Authority in annex VII to these Regulations and shall be: […] (c) Prepared in accordance with the applicable Standards and Guidelines, Good Industry Practice, Best Available Scientific Evidence and Best Available Techniques, and consistent with other plans in these Regulations, including the Closure Plan and the Emergency Response and Contingency Plan. 4. The EMMP shall contain a monitoring programme for at least the first seven years of Exploitation, to be conducted by independent experts and in compliance with the applicable Standards."

Germany would like to suggest introducing a new **Draft Regulation [48bis]** on test mining to be conducted, in principle, before an application for exploitation is submitted. In the following draft it is suggested to include, in principle, a two-fold requirement for test mining to be conducted: Before the application for the approval of a Plan of Work and before commercial production. Paragraph 5 then clarifies that if between the two stages the equipment and methodology as well as the regional specificities have not substantially changed, no second test mining is needed. The same applies if a Contractor can refer to a successful test mining in the context of another Plan of Work conducted either by the Contractor itself or jointly with other Contractors, as long as the requirements of paragraph 5 are met.

Draft Regulation [48bis]:
"1. The purpose of test mining is to ensure that no significant harm is caused by exploitation activities. Test mining projects shall as a general rule provide evidence that appropriate equipment is available to ensure the effective protection of the marine environment in accordance with Article 145. To this end, a Contractor shall conduct test mining, in at least two critical stages, unless Paragraph 5 applies; firstly, when applying for an approval of a Plan of Work in accordance with Part II, and secondly, before commercial production shall commence in accordance with Regulation 25. 2. Before applying for an approval of a Plan of Work, a Contractor has to provide evidence to substantiate the required information in accordance with Regulation 7. A test mining study in accordance with Annex [IVter] shall be submitted with the application for the approval of a Plan of Work. 3. Before commercial production may commence in accordance with Regulation 25, a Contractor shall provide evidence demonstrating its ability to ensure effective protection of the marine environment, in particular, to show that no significant harm to the marine environment is likely to occur during the phase of commercial production. A test mining study in accordance with Annex [IVter] must be submitted to substantiate this. 4. Contractors should apply for the approval for test mining projects from the Authority in accordance with all relevant Standards and Guidelines. The potential effects of test mining projects shall be assessed in the form of an Environmental Impact Assessment. Potentially affected States, international organisations and relevant stakeholders shall be consulted in accordance with the relevant Standards and Guidelines. 5. A test mining study pursuant to Paragraph 3 does not have to be submitted if the evidence required pursuant to Paragraph 3 has been demonstrated in the test mining study pursuant to Paragraph 2 or in a test mining study in the context of another approved plan of work. The Contractor has to submit relevant information to the LTC. The Commission shall decide whether the submission of a test mining study pursuant to Paragraph 2 is required."

Japan

Regulation 48: Environmental Management and Monitoring Plan

According to regulations 49 and 50, a Contractor is required to take necessary measures in accordance with the Environmental Management and Monitoring Plan (EMMP), regulation 48 also needs to make reference likewise to pollution control and restriction on Mining Discharges under regulations 49 and 50.

<Regulation 48>

1. The purpose of an Environmental Monitoring and Management Plan is to manage and confirm that Environmental Effects meet the environmental quality objectives and standards for the mining operation. The plan will set out commitments and procedures on how the mitigation measures, including pollution control and mining discharge in regulations 49 and 50, will be implemented, how the effectiveness of such measures will be monitored, what the management responses will be to the monitoring results and what reporting systems will be adopted and followed.
2. An applicant or Contractor, as the case may be, shall prepare an Environmental Management and Monitoring Plan in accordance with this regulation.
3. The Environmental Management and Monitoring Plan shall cover the main aspects prescribed by the Authority in annex VII to these regulations and shall be:

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

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

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

Micronesia

. On Draft Regulation 48(3)(c), the FSM queries the omission of a reference to Best Environmental Practices in connection with the preparation of an Environmental Management and Monitoring Plan; Best Environmental Practices, as currently defined in the Draft Regulations, would appear to be relevant here. The FSM also reiterates its comments in this connection in Draft Regulation 47(3)(d), as noted above.

Spain

CUARTA.- **ARTÍCULOS 47 Y 48**

Según se desprende del **párrafo 2 del artículo 47**, el solicitante o contratista preparará una "declaración de impacto ambiental". Sin embargo, no se menciona que la Autoridad hará la evaluación y posible concesión en base a esta declaración como si figura en el Anexo IV. En consecuencia, se sugiere una nueva redacción.

Los **artículos 47 (3) (c) y 48 (3) (b)** mencionan que la Declaración de impacto ambiental y el Plan de gestión y vigilancia ambiental deberán estar en consonancia con los Planes de gestión ambiental regional pertinentes. Sin embargo, en el proyecto de reglamento no se menciona expresamente que la existencia de los planes de gestión ambiental debe ser una condición necesaria para la aprobación de los contratos de explotación. Se sugiere una mención expresa al respecto.

United Kingdom

		the mining operation, including cumulative impacts'; and	
48. Environmental Management and Monitoring Plan		4 (bis) The contractor shall monitor and assess compliance with the EMMP and publish the results of the assessment in the annual report.	Compliance with the EMMP should be included in the Annual Report.

II - Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

United States of America

(a) ~~Based on~~ Take into account the environmental impact assessment and the Environmental Impact Statement;

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

(c) Be pPrepared in accordance with the applicable Guidelines, Good Industry Practice, ~~Best Available Scientific Evidence~~Best Available Scientific Information and Best Available Techniques, and consistent with other plans in these regulations, including the Closure Plan and the Emergency Response and Contingency Plan.

4. The Commission shall develop and implement procedures for determining, on the basis of the best available scientific and technical information, whether proposed exploitation activities in the Area would have serious harmful effects on vulnerable marine ecosystems, in particular those associated with seamounts and cold water corals, and ensure that, if it is determined that certain proposed exploration activities would have serious harmful effects on vulnerable marine ecosystems, those activities are managed to prevent such effects or not authorized to proceed.

Commented [A55]: This is explicit in the exploration regs and should be so here.

Secretariat of the Convention on Biological Diversity

47	Work under the CBD to facilitate the description of ecologically or biologically significant marine areas (EBSAs), can prove very useful in the development of the environmental impact statement, in particular with regards to providing a description of the existing biological environment (as referred to in section 5 of annex IV). In this regard, section 5 of annex IV may be revised as follows: "**5. Description of the existing biological environment** The description of the site should be divided by depth regime (surface, midwater and benthic, where appropriate), and provide a description of the various biological components and communities that are present in or utilize the area ***and the ecological and or biological significance of these components***. The detail in this section is expected to be based on a prior environmental risk assessment that will have identified the main impacts, and thus the elements that need to be emphasized in the environmental impact assessment."
47	With regards to the development of Environmental Impact Statements, the CBD voluntary guidelines for the consideration of biodiversity in environmental impact assessments and strategic environmental assessments in marine and coastal areas (as contained in
	UNEP/CBD/COP/11/23) provides guidance on biodiversity considerations of each step of the EIA process. In particular, it highlights key questions and considerations to be addressed in each step of the EIA process with regards to potential impacts on biodiversity, including specific considerations in the open-ocean and deep-sea.

Deep Ocean Stewardship Initiative

DR 48: The EMMP cannot be submitted with the EIS but must be drawn up (preferably by an environmental company independent of that which carried out the EIS) and be dependent on both the REMP and the independently reviewed outcome of the EIS (as identified in the Annex, but not clear in this Regulation). (Most EMMPs are submitted, at the same time, by the same EAP as composed the EIA/EIS so are biased to not include the shortcomings of the EIS). An EMMP is effective only if it addresses risks and uncertainties that are either confirmed or further identified by independent expert opinion (refer to DR 52).

DR 48(1): Where will the environmental quality objectives and standards be defined? DR 92 mentions the recommendation of standards by the Commission, taking into account the views of experts, but it is not clear how these are going to be defined. In order to assess an EMMP, objectives and standards should be defined.

DR 48(3)(a-c): All of these should incorporate climate change considerations.

Deep Sea Conservation Coalition

48	EMMP	EMMPs must include specific plans for monitoring the environmental impacts of mining -not just the effectiveness of the mitigation measures The review of the EMMP should be carried out by the LTC

III - Stakeholders

Nauru Ocean Resources Inc.

Regulation 48

If the Contractor is complying with its Plan of Work as approved when it obtained its Exploitation Contract, then the Contractor should not then later be required to materially change its activities simply because a new "Guideline" may be developed by the Authority at a later time, unless the Contractor is adequately compensated for the cost of making such a change by the Authority.

Section 3
Pollution control and management of waste

Regulation 49
Pollution control

A Contractor shall take necessary measures to prevent, reduce and control pollution and other hazards to the Marine Environment from its activities in the Area, in accordance with the Environmental Management and Monitoring Plan and the applicable Standards and Guidelines.

I - Members of the International Seabed Authority

Australia

Regulation 49
Pollution control

A Contractor shall take **all** necessary measures to prevent, reduce and control pollution and other hazards to the Marine Environment from its activities in the Area, in accordance with the Environmental Management and Monitoring Plan and the applicable Standards and Guidelines.

Commented [AUS68]: Australia proposes that this should provision be amended to read '*all* necessary measures' (emphasis added) to be consistent with Article 194 UNCLOS.

Canada

A Contractor shall take necessary measures to protect and preserve the marine environment, including by preventing, reducinge and controlling pollution and other hazards ~~to the Marine Environment~~ from its activities in the Area, in accordance with the Environmental Management and Monitoring Plan and the applicable Standards and Guidelines.

Germany

- Germany suggests including a reference to REMPs also in **Draft Regulation 49**.

Draft Regulation 49:
"A Contractor shall take necessary measures to prevent, reduce and control pollution and other hazards to the Marine Environment from its activities in the Area, in accordance with the Environmental Management and Monitoring Plan, the applicable Regional Environmental Management Plan and the applicable Standards and Guidelines."

Morocco

Article 49: Lutte contre la pollution	-Se référer à la convention de Londres et à son protocole de 1996.

II - Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

Institute for Advanced Sustainability Studies

66. The Standards and Guidelines referred to in DR 49, alongside all references to Standards and Guidelines in Part IV, are of an essential nature and should be adopted prior to the finalization of the Draft Regulations.

Regulation 50
Restriction on Mining Discharges

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

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

(b) The Environmental Management and Monitoring Plan.

2. Paragraph 1 above shall not apply if such disposal, dumping or discharge into the Marine Environment is carried out for the safety of the vessel or Installation or the safety of human life, provided that all reasonable measures are taken to minimize the likelihood of Serious Harm to the Marine Environment, and such disposal, dumping or discharge shall be reported forthwith to the Authority.

I - Members of the International Seabed Authority

Australia

2*bis*. The disposal, dump or discharge into the Marine Environment of any Mining Discharge that is not in accordance with regulation 50(1) or 50(2) is considered an Unauthorized Mining Discharge and constitutes a Notifiable Event under Appendix 1.

Commented [AUS69]: Australia proposed that there should be further guidance and clarification on the definition of unauthorised discharge to avoid unnecessary disposal. Furthermore, any mining discharge in such circumstances should be considered an 'Unauthorised Mining Discharge' and constitute a Notifiable Event under Appendix 1 (and thus need to comply with the associated timeframes).

Costa Rica

2. Paragraph 1 above shall not apply if such disposal, dumping or discharge into the Marine Environment is carried out for the safety of the vessel or Installation or the safety of human life, provided that all reasonable measures are taken to minimize the likelihood of any harm to the Marine Environment, and such disposal, dumping or discharge shall be reported forthwith to the Authority.

RATIONALE : The proposed wording stated that only serious harm must be minimized, when all environmental harm must be minimized in order to comply with the effective protection of the marine environment.

France

Projet d'article 50 – Limitation des rejets miniers : Afin d'éviter d'éventuels problèmes d'asymétrie des obligations des Etats membres de l'AIFM selon qu'ils sont parties, ou non, à la Convention et au Protocole de Londres sur la prévention de la pollution des mers résultant de l'immersion de déchets, des directives devraient régler la question afin d'assurer le meilleur niveau possible de protection de l'environnement marin.

Japan

2. Paragraph 1 above shall not apply if such disposal, dumping or discharge into the Marine Environment is carried out for the safety of the vessel or Installation or the safety of human life, provided that all reasonable measures are taken to minimize the likelihood of Serious Harm to the Marine Environment, and such disposal, dumping or discharge shall be reported forthwith to the Authority. In case of such mining discharge occurred, the Contractor shall take necessary measures in accordance with regulation 34(2).

Micronesia

18. On Draft Regulation 50(2), the FSM is concerned that the threshold of avoidance of harm for permitted Mining Discharges is for avoidance of Serious Harm. The FSM recognizes the circumstances involved in this type of permitted Mining Discharge, but in the light of the potential of Mining Discharges to harm not just the Area but also the marine ecosystems of adjacent coastal States, there should be at a minimum a requirement for the carrying out of assessments, mitigation, monitoring, and similar measures after these Mining Discharges, for the sake of the ecosystems in the Area and high seas as well as in coastal States' marine environments.

Republic of Korea

- Regarding Draft regulation 50, the Republic of Korea is of the opinion that more scientific researches need to be carried out, before we proceed to making or revising regulations on mining discharges. In the present practice of deep seabed mining discharges of the Resources, polymetallic nodules and polymetallic sulphides should be treated differently. While polymetallic nodules cannot be dressed/processed, polymetallic sulphides tend to be

dressed/processed to increase the economic efficiency. Thus, only water and muds are discharged during polymetallic nodule processing, while the substances that are called "mine tailings" may be discharged in case of polymetallic sulphides processing. As far as we know, mining discharges from polymetallic sulphides have been processed on the ground and there are no cases of processing on the ship. Thus, we do not know the mine tailing effects on the marine environment yet. In this respect, we think it is necessary to consider characteristics of the Resources and their treatments when establishing the definition of mining discharges and standards of mining discharges. However, the draft regulation 48 does not allow the releasing of mining discharges to the ocean, except in exceptional circumstances such as to protect human life and does not reflect the difference of each Resource's processing. In addition, we are of the opinion that to minimize mining discharges and marine environmental harm, it is necessary to carry out additional studies regarding discharge areas. We believe that through these studies, a clearer scientific basis for the regulation would be attained.

Spain

QUINTA.- **ARTÍCULO 50**

En el **artículo 50**, dedicado a la restricción de los vertidos mineros, el Reino de España sugiere hacer una referencia al Convenio de Londres de 1972 y su Protocolo de 1996 sobre el vertimiento de desechos y otras materias, para dejar claro que se respetan los convenios internacionales vigentes. Por tanto, se propone la inclusión de un nuevo apartado 3 al respecto

Redacción propuesta:

"3. Nada de lo dispuesto en este Reglamento se interpretará en el sentido de que socava las obligaciones de las Partes Contratantes del Convenio de Londres sobre la prevención de la contaminación marina por vertido de desechos y otras materias y su Protocolo".

II – Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

Advisory Committee on Protection of the Sea

DR 50(2) (former DR 48(2)): Restriction on Mining Discharges: **We recommend that DR 50(2) be mostly replaced with the language, adjusted mutatis mutandis, from Article 8(1) of the 1996 Protocol to the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (which closely follows Article V of the 1972 Convention covering the same topic (LC/LP)), as follows:*
[We did not read this language in plenary as it was too long; we recommended using language drawn from the LC/LP and said we would provide it to the Secretariat, which we did, as follows.]
Proposed Revised DR 50(2): However, the Contractor need not comply with the obligation in paragraph 1 above when it is necessary to secure the safety of human life or of vessels, aircraft, platforms or other man-made structures at sea in cases of force majeure caused by stress of weather, or in any case which constitutes a danger to human life or a real threat to vessels, aircraft, platforms or other man-made structures at sea if disposal, dumping or discharge into the Marine Environment of any Mining Discharge appears to be the only way of averting the threat and if there is every probability that the damage consequent upon such disposal, dumping or discharge into the Marine Environment of any Mining Discharge will be less than would otherwise occur. Such disposal, dumping or discharge into the Marine Environment of any Mining Discharge shall be conducted so as to minimize the likelihood of damage or injury to human or marine life or Serious Harm to the Marine Environment and shall be reported forthwith to the Authority.

Deep Ocean Stewardship Initiative

DR 50(1)(a): The effectiveness of this provision will depend entirely on the "assessment framework for Mining Discharges as set out in the Guidelines." It is doubtful whether non-binding guidelines are sufficient, given that these will determine whether the operator can dump discharges into the Marine Environment. Legally-binding standards may be a more appropriate option.

DR 50(1)(b): Current wording suggests that the EMMP, prepared by an applicant, can permit the dumping of Mining Discharge. Suggest rewording.

DR 50(2): The property of a Contractor should not be considered more valuable than the Marine Environment of the Area, which is the common heritage of mankind.

Deep Sea Conservation Coalition

50	Restriction on Mining Discharges	It should be noted that mining discharges are permitted where allowed under the Environmental Management and Monitoring Plan (EMMP). This underlines the importance of development of an appropriate EMMP. The exception in paragraph 2 of "reasonable measures are taken to minimise the likelihood of Serious Harm to the Marine Environment" should not be restricted to serious harm but should be to minimise all environmental harm.

Institute for Advanced Sustainability Studies

67. With respect to DR 50(1)(a), we recommend that the word "Guidelines" be replaced with "Standards". Further, in relation to DR 50(1)(b), we pose the question if EMMPs should actually permit such disposal, dumping or discharges – we suggest to delete this paragraph in its entirety.

The Pew Charitable Trusts

2.~~However, the Contractor need not comply with the obligation in paragraph~~Paragraph 1 above ~~where actions~~shall not apply if such disposal, dumping or discharge into the Marine Environment is ~~necessary~~carried out for the safety of ~~life~~the vessel or Installation or the ~~preservation~~safety of ~~property from serious damage~~human life, provided that ~~any action shall be so conducted as~~all reasonable measures are taken to ~~minimize~~minimise the likelihood of ~~injury to life or~~ Serious Harm to the Marine Environment, and shall be reported forthwith to the Authority.

Further clarification was previously requested by several Member States on the thresholds proposed in this Regulation. DR50(2) sets a low threshold ("*all reasonable measures*" taken to minimise "*the likelihood of Serious Harm to the Marine Environment*") to permit dumping of otherwise non-compliant Mining Discharges for the purposes of safety of property or life. Where such dumping takes place, Contractors should rather be required to minimise all environmental harm (not only that which meets the Serious Harm threshold).

The draft Regulations contain no specific provisions for environmental assessment, mitigation or monitoring following accidental discharges.

Section 4
Compliance with Environmental Management and Monitoring Plans and performance assessments

Regulation 51
Compliance with the Environmental Management and Monitoring Plan

A Contractor shall, in accordance with the terms and conditions of its Environmental Management and Monitoring Plan and these regulations:

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

(b) Implement all applicable Mitigation and management measures to protect the Marine Environment, as set out in the Standards referred to in regulation 45; and

(c) Maintain the currency and adequacy of the Environmental Management and Monitoring Plan during the term of its exploitation contract in accordance with Best Available Techniques and Best Environmental Practices and taking account of the relevant Guidelines.

II - Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

United States of America

A Contractor shall, via an independent reviewer selected by the Authority and in accordance with the terms and conditions of its Environmental Management and Monitoring Plan and these regulations:

(a) Monitor and report annually under regulation 38 (2) (g) on the

Commented [A56]: Environmental reviews should be performed by independent experts selected by the Authority based on a clear set of criteria or from an established list of options. The Contractor should be responsible for paying for the independent review, but should not be responsible for the review itself.

Deep Ocean Stewardship Initiative

DR 51: Given that climate change is likely to alter conditions during the period of an exploitation contract – all plans and practices including impact monitoring should take this into account and update accordingly.

DR 51(a): We suggest a time frame be added in which Environmental Effects are to be reported.

DR 51(c): The "relevant" Guidelines should be made available as soon as possible.

DR 51(c) or 52: This should specify that an EMMP needs to be updated when the relevant REMP is updated so as to ensure coherence between project-scale and regional-scale environmental management.

The Pew Charitable Trusts

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

~~(b)~~ Implement all applicable Mitigation and management measures to protect the Marine Environment; ~~and~~

~~(a)~~(b) as set out in the Standards referred to in regulation 45; and (c) Maintain the currency and adequacy of the Environmental Management and Monitoring Plan during the term of its exploitation contract in accordance with ~~Good Industry Practice~~Best Available Techniques and Best Environmental Practices and taking account of the relevant Guidelines.

Regulation 52
Performance assessments of the Environmental Management and Monitoring Plan

1. A Contractor shall conduct performance assessments of the Environmental Management and Monitoring Plan to assess:

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

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

2. The frequency of a performance assessment shall be in accordance with the period specified in the approved Environmental Management and Monitoring Plan;

3. A Contractor shall compile and submit a performance assessment report to the Secretary-General in accordance with, and in the format set out in, the relevant Guidelines.

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

5. Where the Commission considers the performance assessment undertaken by the Contractor to be unsatisfactory, taking account of the Guidelines or the conditions attaching to the Environmental Management and Monitoring Plan, the Commission may require the Contractor to:

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

(b) Submit any relevant supporting documentation or information requested by the Commission; or

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

6. Where the Commission has reasonable grounds to believe that a performance assessment cannot be undertaken satisfactorily by a Contractor in accordance with the Guidelines, the Commission may procure, at the cost of the Contractor, an independent competent person to conduct the performance assessment and to compile the report.

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

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

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

(b) Require the Contractor to deliver a revised Environmental Management and Monitoring Plan, taking into account the findings and

recommendations of the Commission. A revised plan shall be subject to the process under regulation 11.

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

I - Members of the International Seabed Authority

Australia

2. The frequency of a performance assessment shall be in accordance with the period specified in the approved Environmental Management and Monitoring Plan **and shall occur at least annually**;

Commented [AUS70]: Australia considers it is more appropriate that regular, annual environmental performance review be mandated due to the high levels of uncertainty of the potential environmental impacts of exploitation in the Area.

Belgium

Performance assessments of the Environmental Management and Monitoring Plan

Commented [VS54]: Why don't we put a timing in here, e.g. on an annual basis?

6. Where the Commission has reasonable grounds to believe that a performance assessment cannot be undertaken satisfactorily by a Contractor in accordance with the Guidelines, the Commission may procure, at the cost of the Contractor, an

Commented [VS55]: In this case, we doubt whether the Contractor is able to manage satisfactorily the Contract.

Costa Rica

1. The Authority shall conduct performance assessments of the Environmental Management and Monitoring Plan to assess:

2. The frequency of a performance assessment shall be in accordance with the period specified in the approved Environmental Management and Monitoring Plan, which can never be less than every 2 years.

RATIONALE: it does not make sense for the contractor to evaluate itself. It should be the authority through a group of experts, or an independent group of experts. The original frequency included in the previous draft of every 2 years must be included again as an addition to Regulation 52.2

Germany

- In relation to **Draft Regulation 52**, we believe it is reasonable to also mention the applicable REMP.

Draft Regulation 52:
"1. A Contractor shall conduct performance assessments of the Environmental Management and Monitoring Plan to assess: (a) The compliance of the mining operation with the plan; ~~and~~ (b) The continued appropriateness and adequacy of the plan, including the management conditions and actions linked to this; and (c) The compliance of the plan with the applicable Regional Environmental Management Plan. […]"

Jamaica

2. The frequency of a performance assessment shall be in accordance with the period specified in the approved Environmental Management and Monitoring Plan which shall be no less than 24 months;

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

RATIONALE:

With regards to DR 52(2), Council has an interest in ensuring that assessments are undertaken regularly. Thus a maximum period should be stated in the Draft Regulations. We note that annual reports are required under DR 38(2)(g). To require a performance assessment to be undertaken at least every twenty-four (24) months would not appear to be unduly burdensome

With regards to DR 52(6), paragraph 3 of DR 52 imposes an obligation on a Contractor to compile and submit a performance assessment report. It is therefore presumed that all Contractors will be competent to do so and/or may choose to outsource this activity. Paragraph 6 refers to the LTC having "reasonable grounds to believe that a performance assessment cannot be undertaken satisfactorily by a Contractor". The proposed amendment addresses the basis on which reasonable grounds could be argued should other aggravating circumstances also be present.

Republic of Korea

- In draft regulation 52 paragraph 5, stipulates consequences of the Contractor where the performance assessment undertaken by the Contractor is considered unsatisfactory or unacceptable by the Commission. Whereas in paragraph 6, it is stipulated that performance assessment to be carried out by the Contractor may be deemed as unsatisfactory by the Commission under reasonable grounds even before submission of the performance assessment by a Contractor. For the latter paragraph, we are of the view that it would be necessary to spell out the instances of reasonable grounds for presuming that the performance assessment of the Contractor would be unsatisfactory to avoid any misunderstanding between the Contractors and the Commission, and additionally, how to objectify those measures.
- Regulation 52, para 6 states that "Where the Commission has reasonable grounds to believe that a performance assessment cannot be undertaken satisfactorily by a Contractor in accordance with the Guidelines, the Commission may procure, at the cost of the Contractor, an independent competent person to conduct the performance assessment and to compile the report." In our view, paragraph 6 is not necessary in this regulation, and the purpose of this regulation can be sufficiently reached by the rest of the paragraphs (namely, para 1 to 5, 7 and 8). Rather, para 6 might cause dispute between the contractor and ISA by prejudging what has not actually occurred. Therefore, Korea is of the view that para 6 should be deleted.

II - Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

Deep Ocean Stewardship Initiative

DR 52(4 to 6): We welcome the inclusion of this Regulation, but a performance assessment should be done in collaboration or in the presence of independent experts. Add the following:

4. (...) meeting. If the commission does not possess sufficient expertise amongst its members it shall consult independent experts to review the performance assessment. The secretary (...)

5. (c) (...) person / group of persons (...)

6. (...) person / group of persons (...)

Deep Sea Conservation Coalition

52	Performance Assessment	The ISA, or independent third party, should carry out the compliance assessment, not the contractor. Currently the only requirement is that the report is to be made public. It should also require public comment. Also the 2 year frequency has been deleted. It should at least allow for yearly reviews: not be subject to the Environmental Management and Monitoring Plan (which may provide for inadequate periods, at least in hindsight).

The Pew Charitable Trusts

9. ~~Draft regulation 51~~The Commission shall report annually to the Council on such performance assessments and any action taken pursuant to paragraphs 5 to 8 above by it or the Secretary-General. Such report shall include any relevant recommendations for the Council's consideration.

This is a helpful addition. Reporting requirements are generally important to ensure that the Council receives all monitoring and compliance information necessary for it to perform its regulatory role as the executive body of the ISA mandated to 'control activities in the Area' [Article 162, UNCLOS]

~~1.~~ The frequency of a performance assessment shall be~~:~~

~~(a) In~~ in accordance with the period specified in ~~its~~the approved Environmental Management and Monitoring Plan~~; or~~

~~(b) Every two years; or~~

~~(c) As agreed to in writing by the Commission,~~

~~taking into consideration the nature of the Resource category in question~~. […]

Several Member States in 2018 submissions expressed concern regarding the frequency of performance assessments, noting that regular assessments may be necessary in an environment with high levels of uncertainty. Assessment frequency has now been left to a schedule that will be proposed by the Contractor in the EMMP (for approval by the Council at application stage). No further guidance is given. If the frequency is set incorrectly at the application stage, a revision of the EMMP would be required. It would seem more sensible to include in DR52 a back-stop minimum duration between reviews, perhaps every two years. It may also be prudent to empower the ISA to request *ad hoc* performance assessments, such as after occurrence of an Incident or Notifiable Event, receipt of an unsatisfactory annual report, or issuance of a compliance notice.

Consideration should be given to the possibility of the ISA carrying out the compliance assessment, rather than the Contractor. Assessments should provide for public comment.

9. ~~Draft regulation 51~~The Commission shall report annually to the Council on such performance assessments and any action taken pursuant to paragraphs 5 to 8 above by it or the Secretary-General. Such report shall include any relevant recommendations for the Council's consideration.

This is a helpful addition. Reporting requirements are generally important to ensure that the Council receives all monitoring and compliance information necessary for it to perform its regulatory role as the executive body of the ISA mandated to 'control activities in the Area' [Article 162, UNCLOS]

III - Stakeholders

Global Sea Mineral Resources NV

DR 52 (6)	An independent competent person is required to conduct the performance assessment when the Commission deems that Contractor cannot satisfactorily conduct it.	The independent competent person should be agreed by the ISA and the Contractor.

Regulation 53
Emergency Response and Contingency Plan

1. A Contractor shall maintain:

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

(b) Such resources and procedures as are necessary for the prompt execution and implementation of the Emergency Response and Contingency Plans and any Emergency Orders issued by the Authority.

2. Contractors, the Authority and sponsoring States shall consult together, as well as with other States and organizations which appear to have an interest, in relation to the exchange of knowledge, information and experience relating to Incidents, using such knowledge and information to prepare and revise standards and operating guidelines to control hazards throughout the mining life cycle, and shall cooperate with and draw on the advice of other relevant international organizations.

I – Members of the International Seabed Authority

Australia

Regulation 53
Emergency Response and Contingency Plan

1. A Contractor shall maintain:

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

Commented [AUS71]: Australia's view is that Emergency Response and Contingency Plans should be tested on a regular basis, annually at a minimum, to ensure adequacy and relevance of the contents.

Chile

Chile propone incorporar que, luego de una contingencia y/o emergencia, los contratistas entreguen un informe detallado sobre la forma en que se dio cumplimiento al plan pactado, incluyendo entre otros aspectos, gastos incurridos, responsabilidades y actualización del plan en caso de ser necesario.

Indonesia

Regulation 53 **Emergency Response and Contingency Plan** 1. A Contractor shall maintain: (a) The currency and adequacy of its Emergency Response and Contingency Plans based on the identification of potential Incidents and in accordance with Good Industry Practice, Best Available Techniques, Best Environmental Practices and the applicable standards and Guidelines; and (b) Such resources and procedures as are necessary for the prompt execution and implementation of the Emergency Response and Contingency Plans and any Emergency Orders issued by the Authority.	We hold position that [relevant adjacent] Coastal shall be included in the mechanism of consultation between Contractors authority and Sponsoring States.	In this regard, we propose DR 51 (2) to be reformulated as follows: 2. Contractors, the Authority and sponsoring States shall consult together with, [relevant adjacent] Coastal States, as well as other States and organizations which appear to have an interest, in relation to the exchange of knowledge, information and experience relating to Incidents, using such knowledge and information to prepare and revise standards and operating guidelines to control hazards throughout the mining life cycle, and shall cooperate with and draw on the advice of other relevant international organizations.

II - Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

Institute for Advanced Sustainability Studies

68. In DR 53(1)(a), we believe that "standards" should be spelt with a capital "S". Further, in DR 53(2), we suggest that the words "which appear to have an interest" be replaced with "as well as other persons with the relevant expertise or know-how".

Section 5
Environmental Compensation Fund

Regulation 54
Establishment of an Environmental Compensation Fund

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

2. The rules and procedures of the Fund will be established by the Council on the recommendation of the Finance Committee.

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

I – Members of the International Seabed Authority

Chile

Chile sugiere que el Secretario General preparare, en su momento, un estado auditado de ingresos y gastos del fondo, con el apoyo del Comité de Finanzas, para brindar mayor certeza.

Italy

The rules and procedures of the Fund will be established by the Council on the recommendation of the Finance Committee, in accordance with article 140 (2) of the UNCLOS.

Jamaica

Regulation 54 Establishment of ~~an~~ Environmental ~~Compensation~~ Funds

1. The Authority hereby establishes the Environmental Compensation Fund ("the Fund") and the Environmental Research and Training Fund ("the ERTF").
2. The rules and procedures of the Fund and ERTF will be established by the Council on the recommendation of the Finance Committee.
3. The Secretary-General shall, within 90 Days of the end of a Calendar Year, prepare ~~an~~ audited statements of the income and expenditure of the Fund and the ERTF for circulation to the members of the Authority.

Mexico

Por lo que hace a este Fondo de Compensación[1], debe ser la Comisión Jurídica y Técnica quien establezca las reglas de conformación, operación, uso y manejo (origen y destino

de los recursos así como la naturaleza jurídica del fondo). A juicio de México, el Fondo debe de estar conformado por las aportaciones de los contratistas a las que hacemos mención en el esquema de pagos y reparto de utilidades que se explicó en párrafos anteriores y debe tener por objetivo la mitigación, remediación y rehabilitación de los ecosistemas marinos dañados, particularmente aquellos que afecten las zonas marinas de los Estados Ribereños.

En este sentido, el uso del Fondo para dar cumplimiento con las obligaciones de indemnización, remediación y reparación a los Estados Ribereños por las actividades de la Zona deben de quedar expresamente señaladas en el Código de Explotación, se sugiere dentro de los **incisos a), b) y d) del proyecto de artículo 55 y en el proyecto del artículo 56**.

Netherlands

Comment: In paragraph 2, the suggestion is to include a deadline for the establishment of the rules and procedures of the Fund. In view of the purpose of the Fund, (cf. Regulation 55) it is relevant to have the Fund up and running at the commencement of exploitation activities. This timeline would also help clarify to all stakeholders where the Authority stands on the issue of the Fund.

Republic of Korea

- In Regulation 54, The Republic of Korea concur with the idea of establishing the Environmental Liability Trust Fund to prevent the environmental damage caused by activities in the Area. However, we think there are some points that need to be addressed for practical operation of this matter. First, it is questionable how much financial resources can be secured for the purpose of the fund from the listed subjects. In addition, the expenses necessary for education and training programs may be covered by Contractors fulfilling their training duties. Second, the draft regulation 56 (a), the funding scheme, imposes a certain amount of fees for the fund from the fees paid to the Authority and since this may be considered as deviating from the principle of polluter pays rule, we suggest a study dealing with this matter. At this point, if necessary, we believe that one way to secure funding to fulfill the purpose of the Environmental Liability Trust Fund is to find ways to utilize funds allotted for environmental protection from the United Nations.
- Lastly, although we support the idea of preventing and remedying environmental damage by establishing an environmental compensation fund as stated in Section 5 of Part 4, we are not confident whether the sufficient fund can be secured by the methods listed under the regulations. Furthermore, according to regulation 56 (a), a certain amount of fees paid to the Authority can be used as the fund, but we need more review to see whether this is inconsistent with 'polluter pays principle'. /END/

United Kingdom

54. Establishment of an Environmental Compensation Fund			The UK considers that there remain many questions about the working of an Environmental Compensation Fund – including who is responsible, who would administer, and how much is the 'prescribed percentage'? Once we have more agreed details then it will be clearer whether these should be included in the text of the Regulations, or covered in the rules and procedures of the Fund.

II – Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

United States of America

2. The rules and procedures of the Fund will be established by the Council on the recommendation of the Finance Committee.

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

Commented [A57]: These should be established and agreed to simultaneously with the agreement on the draft regs. This section should also include provisions on eligible entities and means of distribution.

Deep Sea Conservation Coalition

54	Environmental Compensation Fund	The Environmental Liability Trust Fund has been recast as an Environmental Compensation Fund, with functions including research, education and training programs and funding of research into restoration – all of which will deplete the fund, and all of which should be carried out by contractors from their own funds. This is completely at odds with what was recommended by the Seabed Disputes Chamber in the Advisory Opinion, being needed to cover a gap left when for instance a contractor is insolvent. To be very clear: there must be two funds: an Liability Fund and an Environmental Fund.

International Marine Minerals Society

Regulation 54	Who decides how money from the Environmental Compensation Fund is paid or distributed? On what basis?

The Pew Charitable Trusts

The name of the DR54 Fund has been amended to reflect its intended purpose of paying out compensation for harm that may be incurred as a result of Contractor activities. Curiously, the purposes of the fund (DR55) have not been amended to include compensation, nor to remove the other non-compensatory-related purposes contained in sub-paragraphs (b)-(e). These latter purposes may better be addressed via a separate fund.

The Commission acknowledges this section needs more discussion: "*The Commission has asked that the secretariat reflect on the discussions around this topic, with a view to advancing the rationale, purpose and funding of such fund, and how to ensure the adequacy of such fund through its funding*." [ISBA/25/C/18].

Key policy questions to be addressed might include:

(i) Whether a reversion to a previous draft's two separate funds may make sense: (1) to compensate for damages, as per the ITLOS Advisory Opinion liability gap; and (2) for other 'sustainability' type purposes (education, research, environmental purposes).

(ii) How the fund(s) are financed, how the money (and interest generated) will be managed and by whom, when disbursements, reimbursements or refunds can be made, what is the process for accessing the fund, what standard of proof is required, and what type of damages and purposes are eligible.

III - Stakeholders

Nauru Ocean Resources Inc.

Regulation 54
NORI questions whether an Environmental Compensation Fund is needed, given that an Environmental Performance Guarantee has already been required under Regulation 26. NORI strongly advises against duplicating such costs for Contractors.

Regulation 55
Purpose of the Fund

The main purposes of the Fund will include:

(a) The funding of the implementation of any necessary measures designed to prevent, limit or remediate any damage to the Area arising from activities in the Area, the costs of which cannot be recovered from a Contractor or sponsoring State, as the case may be;

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

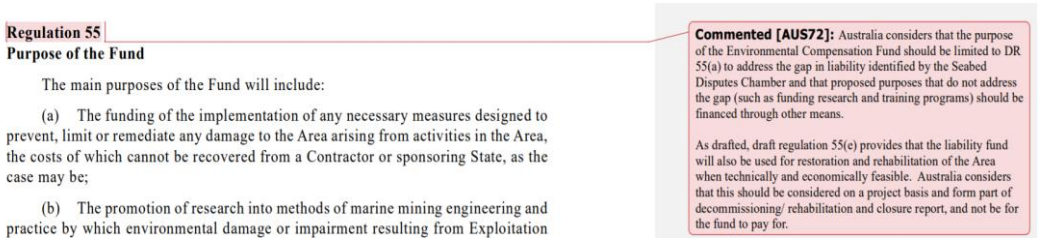
(c) Education and training programmes in relation to the protection of the Marine Environment;

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

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

I - Members of the International Seabed Authority

Australia



Regulation 55
Purpose of the Fund

The main purposes of the Fund will include:

(a) The funding of the implementation of any necessary measures designed to prevent, limit or remediate any damage to the Area arising from activities in the Area, the costs of which cannot be recovered from a Contractor or sponsoring State, as the case may be;

(b) The promotion of research into methods of marine mining engineering and practice by which environmental damage or impairment resulting from Exploitation

Commented [AUS72]: Australia considers that the purpose of the Environmental Compensation Fund should be limited to DR 55(a) to address the gap in liability identified by the Seabed Disputes Chamber and that proposed purposes that do not address the gap (such as funding research and training programs) should be financed through other means.

As drafted, draft regulation 55(e) provides that the liability fund will also be used for restoration and rehabilitation of the Area when technically and economically feasible. Australia considers that this should be considered on a project basis and form part of decommissioning/ rehabilitation and closure report, and not be for the fund to pay for.

Chile

Con respecto al **literal e)** sobre restauración y rehabilitación de la Zona, **Chile considera que este punto está estrechamente relacionado con los planes de cierre, por lo que ambas secciones podrían tener una referencia cruzada, justamente debido a la similitud de objetivos. Ello permitiría evitar una duplicidad innecesaria, de dos procesos que cumplen un objetivo similar.**

China

19. Draft regulation 55

The environmental liability trust fund should be remedial and complementary in nature, aiming to prevent, limit, or remedy any environmental damage from activities in the Area. "Education and training programmes in relation to the protection of the Marine Environment" as contained in subparagraph (c) is too broad and may dilute the core objective of the fund. Given that the training issue pertinent to the marine environmental protection could be covered by Contractors in discharging their relevant contract obligations or through other measures, it is suggested to delete the relevant content.

Costa Rica

Purpose of the Environmental Compensation Fund

(b) The restoration and rehabilitation of the Area when technically and economically feasible and supported by Best Available Scientific Evidence. (non-compensatory purposes were deleted to be addressed by another mechanism)

RATIONALE: The other "purposes" were non-compensatory purposes which have nothing to do with ITLOS advisory opinion on liability gap. Those other purposes must be addressed by a separate mechanism.

Regulation 55bis

Purpose of the Environmental Fund

The main purposes of the Fund will include:

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

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

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

RATIONALE: the purposes deleted from Regulation 55, are included in Regulation 55bis.

France

A la section 5, relative au « Fonds d'indemnisation environnementale », nous relevons une possible incohérence entre l'intitulé de ce fonds et son objet (« *environmental compensation fund* » en anglais). En effet, sur les cinq objets du fonds prévus à **l'article 55**, seul le premier poursuit un véritable objectif d'indemnisation. Nous suggérons donc de modifier l'intitulé comme suit : « Fonds de **compensation** environnementale », plus en ligne avec son objet.

Projet d'article 55, alinéa a : Suggestion de remplacer « [...] limiter ou réparer les dommages occasionnés *dans la Zone* » par « limiter ou réparer les dommages occasionnés **par les activités menées dans la Zone** » afin d'inclure les dommages causés à la colonne d'eau ou aux zones sous juridiction nationale.

Ce fonds pourrait également servir à financer des travaux de recherche sur les impacts cumulés des activité d'exploitation à l'échelle régionale, ainsi que le suivi des zones d'intérêt environnemental particulier (*Areas of Particular Environmental Interest)* dont la gestion ne relève pas des contractants.

Italy

DR55	The purpose of the Fund should also include a point addressing the logic that rectification of the harm deriving from seabed mining activities should be to ensure that the parties conducting the seabed mining activities (Contractors) address the injustice caused to those who undeservedly suffered it. Contractors should generally be understood as 'voluntary beneficiaries', since they know of the wrongdoing, could have avoided it without incurring unreasonable costs, but instead have sought and welcome it. As 'voluntary beneficiaries', contractors must rectify the harm done by supporting those affected by it. Identification of the recipient of such duty is highly problematic considering the complex nature of seabed mining. For instance, given the potentially global scope of the harm caused by seabed mining, it is virtually impossible to identify the rightful duty-recipient or a legitimate successor with certainty.	The Fund should include a financial mechanism for governing compensation for harm arising from seabed mining activities carried out beyond national jurisdiction. Contractors should replenish such mechanism through financial compensations proportional to the harm they brought about. The revenues (or proceeds) raised should be distributed to victims of harm deriving from mining activities proportionally to their social vulnerability to such harm. After point (b) you may add 'The promotion of the participation of vulnerable communities and relevant stakeholders in decisions about disbursment of funds'
DR55 [c]		Education and training programmes in relation to the protection of the Marine Environment , with particular regards to vulnerable communities and relevant stakeholders;

Jamaica

Regulation 55 Purpose of the Environmental Compensation Fund

The main purposes of the Fund iswill include:

(a) Tthe funding of the implementation of any necessary measures designed to prevent, limit or remediate any damage to the Area arising from activities in the Area, the costs of which cannot be recovered from a Contractor or sponsoring State, as the case may be, including;

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

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

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

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

Regulation 55 bis Purpose of the ERTF

The main purposes of the ERTF include:

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

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

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

RATIONALE:

The purposes of the Fund as stated in the Draft Regulations appear to be overly broad. This would likely diminish the utility of the Fund in achieving the stated objectives. A Compensation Fund should address the possible gap in liability, as identified by the Seabed Disputes Chamber, which may occur where a Contractor has caused damage and is unable to meet its liability in full and the sponsoring State has taken all necessary and appropriate measures, or has failed to meet its obligations but that failure is not causally linked to the damage. This extends in our view to the possible restoration and rehabilitation of the environment in cases where the Contractor and sponsoring State may not be held liable.

It is proposed that a separate fund be created to deal with environmental research, training and education programmes. This would supplement the resources that may be available under the Endowment Fund for Marine Scientific Research in the Area and other ISA and Contractor capacity development and training programmes.

Japan

<Regulation 55>

The ~~main~~ purpose~~s~~ of the Fund will be ~~include:~~

~~(a)~~ The funding of the implementation of any necessary measures designed to prevent, limit or remediate any damage to the Area arising from activities in the Area, the costs of which cannot be recovered from a Contractor or sponsoring State, as the case may be.~~;~~

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

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

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

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

Micronesia

19. On Draft Regulation 55, it is the FSM's view that the main purpose of the Environmental Compensation Fund should be focused on the considerations identified in sub-paragraph (a) therein, with significant consideration also given to restoration and rehabilitation of the Area as contemplated in sub-paragraph (e) therein as well. The FSM also acknowledges the consonance between this Fund and Environmental Performance Guarantees; both instruments can reinforce each other, with the latter being funded by relevant Contractors and the former being funded more broadly.

United Kingdom

55. Purpose of the Fund	(b) The promotion of research into methods of marine mining engineering and practice by which environmental damage or impairment resulting from Exploitation activities in the Area may be reduced; (c) Education and training programmes in relation to the protection of the Marine Environment; (d) The funding of research into Best Available Techniques for the restoration and rehabilitation of the Area; and	~~(b) The promotion of research into methods of marine mining engineering and practice by which environmental damage or impairment resulting from Exploitation activities in the Area may be reduced;~~ ~~(c) Education and training programmes in relation to the protection of the Marine Environment;~~ ~~(d) The funding of research into Best Available Techniques for the restoration and rehabilitation of the Area; and~~	Further consideration is required about the purpose of the Environmental Compensation Fund. As items (b-d) are not examples of compensation, they should be deleted from this Regulation 55.

II – Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

United States of America

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

Deep Ocean Stewardship Initiative

DR 55 currently foresees the fund to be used to address environmental damage as well as research and training programmes in relation to environmental protection. We recommend dedicating the Environmental Compensation Fund to only address environmental damage in cases where the costs cannot be recovered from the Contractor or the sponsoring State, in line with the recommendations of the Seabed Disputes Chamber (*Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion) [2011] ITLOS Rep 10, paragraph 205). Using the fund also for research and training programmes, risks (a) not having sufficient funds to cover liability gaps, and (b) having diminished resources for environmental research and training in the case when a liability gap occurs. Additionally, these will require scientific input, but it is not stated who will provide this input and assessment. Will there be a committee of expert scientists that will evaluate the proposals?

Deep Sea Conservation Coalition

55	Purpose of the Fund	The purposes need major revision. Training and research should be paid for by the Contractors, not the Fund. The only suitable provision is" (a) The funding of the implementation of any necessary measures designed to prevent, limit or remediate any damage to the Area arising from activities in the Area, the costs of which cannot be recovered from a Contractor or sponsoring State, as the case may be", and this needs revision. "Mitigate' should be added, and it should be more open-ended.

Institute for Advanced Sustainability Studies

69. Concerning DR 55, while acknowledging the importance of funding research, education and training programmes, we recommend that the purpose of the Environmental Compensation Fund be confined solely to the matters stated in paragraphs (a) and (e) of DR 55.

The Pew Charitable Trusts

Regulation 55
Purpose of the Fund

The main purposes of the Fund will include:

(a) The funding of the implementation of any necessary measures designed to prevent, limit or remediate any damage to the Area arising from activities in the Area, the costs of which cannot be recovered from a Contractor or sponsoring State, as the case may be;

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

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

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

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

Regulation 56
Funding

The Fund will consist of the following monies: MISSING REGULATION

(a) The prescribed percentage or amount of fees paid to the Authority;

(b) The prescribed percentage of any penalties paid to the Authority;

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

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

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

I - Members of the International Seabed Authority

Australia

(a) The prescribed percentage or amount of fees paid to the Authority **by sponsoring states and contractors**;

(b) The prescribed percentage of any penalties paid to the Authority;

Commented [AUS73]: Australia considers that funds for the Environmental Compensation Fund should come from Sponsoring States and contractors. ISA members not involved in activities in the Area should not be required to contribute. This should be reflected in the provisions.

Canada

The Fund will consist of the following monies paid by Contractors:

II – Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

Deep Sea Conservation Coalition

DR 56: Funding of the Fund: MIT in the Financial Workshop in February recommended funding by contractors at a rate of 1% ad valorem value of ore extracted. But this would mean that the Fund is necessarily underfunded for decades until it reaches the recommended $500 million. Rather, the Fund should be directly funded by the Contractor of its own revenues, under the polluter pays principle. Secondly, the 1% is arbitrary. Research into the valuation of the deep sea environment, ecosystem services and potential damage is necessary, and this research must be taken into account in formulating this text.

The LTC acknowledges this needs more discussion: "The Commission has asked that the secretariat reflect on the discussions around this topic, with a view to advancing the rationale, purpose and funding of such fund, and how to ensure the adequacy of such fund through its funding."

56	Funding	This list should be open ended.

Part VI
Closure plans

Regulation 59
Closure Plan

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

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

(a) The closure of mining activities is a process that is incorporated into the mining life cycle and is conducted in accordance with Good Industry Practice, Best Environmental Practices and Best Available Techniques;

(b) At the date of cessation or suspension of mining activities, a management and monitoring plan is in place for the period prescribed in a Closure Plan;

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

(d) The necessary health and safety requirements are complied with;

(e) Any residual negative Environmental Effects are identified and quantified, and management responses are considered, including plans for further Mitigation or remediation where appropriate;

(f) Any restoration or rehabilitation commitments will be fulfilled in accordance with predetermined criteria or standards; and

(g) The mining activities are closed or suspended efficiently and cost effectively.

3. The Closure Plan shall cover the main aspects prescribed by the Authority in annex VIII to these regulations.

4. A Contractor shall maintain the currency and adequacy of its Closure Plan in accordance with Good Industry Practice, Best Environmental Practices, Best Available Techniques and the relevant Guidelines.

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

I – Members of the International Seabed Authority

Australia

(f) Any restoration or rehabilitation commitments will be fulfilled in accordance with predetermined criteria or standards; and

(ff) Requirements regarding the removal of all Installations and equipment from the Mining Area are addressed; and

(g) The mining activities are closed or suspended efficiently and cost-effectively.

3. The Closure Plan shall cover the main aspects prescribed by the Authority in annex VIII to these regulations.

4. A Contractor shall maintain the currency and adequacy of its Closure Plan in accordance with Good Industry Practice, Best Environmental Practices, Best Available Techniques and the relevant Guidelines.

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

Commented [AUS76]: Australia considers that Closure Plans should include an obligation to remove all equipment and remediate the environment.

Commented [AUS77]: Australia suggests including a timeframe for notification of updates to Closure Plans.

Belgium

3. The Closure Plan shall cover the aspects prescribed by the Authority in annex VIII to these regulations.

Commented [VS59]: Cover all aspects, not solely the 'main' aspects.

Canada

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

Chile

Chile considera que los resultados de las evaluaciones de desempeño ambiental podrían constituir aportes para posibles actualizaciones.

France

Projet d'article 59 – Cessation des activités : Il pourrait être utile de définir ce que recouvrent les notions « d'effets résiduels sur l'environnement » et « d'effets naturels sur l'environnement ».

Germany

Draft Regulation 59 para. 4 should also include a reference to "best available scientific evidence".

Draft Regulation 59:
"[…] 4. A Contractor shall maintain the currency and adequacy of its Closure Plan in accordance with Good Industry Practice, Best Environmental Practices, Best Available Techniques, Best Available Scientific Evidence and the relevant Guidelines. […]"

Japan

Closure Plan is such a critical document as it addresses issues including any deliberate disposal at sea of wastes or other matters from vessels and Installations to be regulated by Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention) and 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (London Protocol). The priority of the relevant Guideline on Closure Plan should be regarded as Phase 2, or "Guidelines to be developed prior to the receipt of the first application for a plan of work for exploitation. "

Myanmar

6. In the "Part VI: Closure plans" and "Part IX: Information-gathering and handling" some restriction and description of the draft regulation, in particular on environmental issues, should be more detail in guideline and standards rather than the current regulation. In addition, there should be stakeholder input and feedback into the development of that guideline and standards more detailed. In the "Plan of work schedule" project planning with time schedules for application approval, exploration, allowed duration for infrastructural facilitating and project deployment, exploitation, recovery action plan, should be considered and basic principle for consideration of time-frame to be allowed and agreed should be drawn.

United Kingdom

59. Closure Plan	1. A Closure Plan shall set out the responsibilities and actions of a Contractor for the decommissioning and closure of activities in a Mining Area, including the post-closure management and monitoring of residual and natural Environmental Effects. Closure also includes a temporary suspension of mining activities.	1. A Closure Plan shall set out the responsibilities and actions of a Contractor for the decommissioning and closure of activities in a Mining Area, including ~~the post-closure~~ management and monitoring of residual ~~and natural~~ Environmental Effects. Closure also includes a temporary suspension of mining activities.	Removal of 'post-closure' as Closure Plan should involve both pre- and post-decommissioning works This sub-paragraph (1) contains language not used elsewhere in terms of environmental impact i.e. 'residual and natural Environmental Effects' – suggest the wording remains the same throughout the Regulations.

II – Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

United States of America

(d) The necessary health and safety requirements are complied with;

(e) Any residual negative Environmental Effects are identified and quantified, ~~and~~ management responses are considered, including plans for further Mitigation or remediation where appropriate, and capacity to implement management responses is demonstrated;

Commented [A58]: To which requirements do these refer? Too vague.

Advisory Committee on Protection of the Sea

DR 59 (former DR 57): Closure Plan
Further to our comments on the previous version:
DR 59(1): if "residual environmental effects" are those effects that remain after all impact minimisation and mitigation strategies have been employed, this definition must be spelled out, and as must the difference between these effects and "natural Environmental Effects", which latter must also be defined.
DR 59(2)(e): what are "residual **negative** Environmental Effects"? [*Emphasis supplied.*] How are these different from "residual Environmental Effects?

Deep Ocean Stewardship Initiative

DR 59(2)(b): We recommend there be a minimum period prescribed for the management and monitoring plan to be in place. This may be resource specific, the type of environment and the scale of impact. The length of the period of monitoring can vary widely. What if the impact needs to be monitored for decades? Would the Contractor be responsible for monitoring irrespective of time frame? If so, will the ISA take over if the Contractor is non-compliant?

DR 59(5): We are pleased to see a review period for the Closure Plan and the requirement for Contractors to maintain the Closure Plan in accordance with Best Environmental Practices, Best Available Techniques (DR 59(4)) as this is an important component for adaptive management.

Deep Sea Conservation Coalition

59	Closure Plan	Paragraph (e) concerning any residual negative Environmental Effects should require management responses to be implemented, not just considered. Provision (g) requiring that The mining activities are closed or suspended efficiently and costeffectively may encourage contractors to cut corners; cost effectiveness should not block measures needed to protect the environment. This should also include the need to remove all non-natural equipment and material from the Area.

The Pew Charitable Trusts

~~Draft regulation 57~~Regulation 59

Closure Plan

[…]

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

a. The closure of mining activities is a process that is incorporated into the mining life cycle and is conducted in accordance with Good Industry Practice~~s~~, Best Environmental Practices and Best Available Techniques; […]

Best practice for closure plans includes scheduling relevant scientific studies to inform closure throughout the mine life. This requirement could be more explicitly reflected in DR59.

f. Any restoration or rehabilitation commitments will be fulfilled in accordance with predetermined criteria or standards; and

3. The Closure Plan shall cover the main aspects prescribed by the Authority in annex VIII to these Regulations.

4. A Contractor shall maintain the currency and adequacy of its Closure Plan in accordance with Good Industry Practice, Best Environmental Practices, Best Available Techniques and the relevant Guidelines.

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

Regulation 60
Final Closure Plan: cessation of production

1. A Contractor shall, at least 12 months prior to the planned end of Commercial Production, or as soon as is reasonably practicable in the case of any unexpected cessation, submit to the Secretary-General, for the consideration of the Commission, a final Closure Plan, if such cessation requires a Material Change to the Closure Plan, taking into account the results of monitoring and data and information gathered during the exploitation phase.

2. The Commission shall examine the final Closure Plan at its next meeting, provided that it has been circulated at least 30 Days in advance of the meeting.

3. If the Commission determines that the final Closure Plan meets the requirements of regulation 59, it shall recommend approval of the final Closure Plan to the Council. ISBA/25/C/WP.1 19-04869 45/117

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

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

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

7. The Commission shall review the amount of the Environmental Performance Guarantee provided under regulation 26. 8. The Council shall consider the report and recommendation of the Commission relating to the approval of the final Closure plan.

I – Members of the International Seabed Authority

Australia

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

7. The Commission shall review the amount of the Environmental Performance

Commented [AUS78]: This provision uses the "30 days in advance of the next meeting" timeframe which Australia does not consider is necessarily adequate time to consider new information ahead of meetings.

Clarification is also required in draft regulation 60(6) of which meeting the 30 day timeframe refers to – the Commission or the Council.

Costa Rica

1. A Contractor shall, at least 12 months prior to the planned end of Commercial Production, or as soon as is reasonably practicable in the case of any unexpected cessation, submit to the Secretary-General, for the consideration of the Commission, a final Closure Plan, (text deleted here), taking into account the lts of monitoring and data and information gathered during the exploitation phase and the appropriate Regional Environmental Management Plan.

RATIONALE: A closure plan should always be required, not only " if such cessation requires a Material Change to the Closure Plan ". This one of the Regulations where a reference to REMPS is required.

2. The Commission shall examine the final Closure Plan at its next meeting, provided that it has been circulated at least 30 Days in advance of the meeting. If the Commission lacks sufficient technical expertise to evaluate the final Closure Plan it shall consult recognized independent experts to assist them in the evaluation process.

RATIONALE: The Commision must not be required to make decisions on technical matters in which they don't have enough expertise.

France

Projet d'articles 60, paragraphes 2 et 6 et 61, paragraphe 3 : Suggestion de remplacer « au moins 30 jours à l'avance » par « **au moins 30 jours avant l'ouverture de ladite séance** », plus précise et conforme à la version anglaise du projet de règlement.

Germany

- **Draft Regulation 60 para. 1** should in our view also be mindful of the fact that an applicable REMP could also establish obligations for the period subsequent to exploitation activities.

Draft Regulation 60:
"1. A Contractor shall, at least 12 months prior to the planned end of Commercial Production, or as soon as is reasonably practicable in the case of any unexpected cessation, submit to the Secretary-General, for the consideration of the Commission, a final Closure Plan, if such cessation requires a Material Change to the Closure Plan, determined in accordance with the procedures established in Regulation 57, taking into account the results of the monitoring and data and information which has been gathered during the exploitation phase and the applicable Regional Environmental Management Plan. […]"

Italy

DR60 (2)	Considering the sensitivity of the matter and the unlikely condition that the end of the commercial production, other than emergencial, is decided in short times, it is necessary that the final and updated Closure Plan is circulated more than 30 Days in advance of the next meeting of the Commission.	The Commission shall examine the final Closure Plan at its next meeting, provided that it has been circulated at least 30 Days in advance of the meeting.	

United Kingdom

60. Final Closure Plan: cessation of production	1. A Contractor shall, at least 12 months prior to the planned end of Commercial Production, or as soon as is reasonably practicable in the case of any unexpected cessation, submit to the Secretary-General, for the consideration of the Commission, a final Closure Plan, if such cessation requires a Material Change to the Closure Plan, taking into account the results of monitoring and data and information gathered during the exploitation phase.	1. A Contractor shall, at least ~~12~~ 24 months prior to the planned end of Commercial Production, or as soon as is reasonably practicable in the case of any unexpected cessation, submit to the Secretary-General, for the consideration of the Commission, a final Closure Plan, if such cessation requires a Material Change to the Closure Plan, taking into account the results of monitoring and data and information gathered during the exploitation phase.	Extend the time period, to make clear that the process (including public consultation) may take considerable time.

II – Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

Advisory Committee on Protection of the Sea

DR 60 (former DR 58): Final Closure Plan: cessation or suspension of production
Noting that the LTC implemented our comments submitted in September 2018, we have no further comments on this DR.

Deep Ocean Stewardship Initiative

DR 60(1): The submission of a final Closure Plan 12 months prior to the planned end of Commercial Production should occur regardless of whether a Material Change is needed or not. This will allow time for the Closure Plan to be reviewed prior to the scale down of operations. Currently, it appears that the submission of a final Closure Plan is only required if a Material Change is required. Request clarification on the wording so that submission of a final Closure Plan is required under all circumstances.

DR 60(2): Add the following sentence to: (...) If the commission does not possess sufficient expertise amongst its members it shall consult independent experts to review the Closure Plan.

Institute for Advanced Sustainable Studies

73. We suggest deleting the words "if such cessation requires a Material Change to the Closure Plan" in DR 60(1). It should read: "[...] final Closure Plan, taking into account [...]". In this way, a final Closure Plan is clearly required under all circumstances.

The Pew Charitable Trusts

Final Closure Plan: cessation ~~or suspension~~ of production

1.A Contractor shall, at least 12 months prior to the planned end of Commercial Production ~~or any suspension of activities in the Mining Area under regulation 30~~, or as soon as is reasonably practicable in the case of any unexpected cessation ~~or suspension~~, submit to the Secretary-General, for the consideration of the Commission, a final Closure Plan, if such cessation ~~or suspension~~ requires a Material Change to the Closure Plan, taking into account the results of the monitoring and data and information which has been gathered during the exploitation phase.

2.The Commission shall ~~consider~~examine the final Closure Plan at its next meeting, provided that it has been circulated at least 30 Days in advance of the meeting.

~~1. The~~If the Commission ~~shall:~~

3.~~Approve~~determines that the final Closure Plan~~; or~~ meets the requirements under regulation 59 it shall recommend approval of the final Closure Plan to the Council.

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

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

~~5.~~6. ~~Reject the final Closure Plan in the event that the amendments are not made by the Contractor.~~At its next available meeting, the Commission shall consider any such representations made or revised final Closure Plan submitted by the Contractor when preparing its report and recommendation to the Council, provided that the representations have been circulated at least 30 Days in advance of that meeting.

~~6.~~7. The Commission shall review the amount of the Environmental Performance Guarantee provided under regulation ~~27~~26.

8. ~~**Draft regulation 59**~~The Council shall consider the report and recommendation of the Commission relating to the approval of the final Closure plan.

Note: DR60 has been amended to reflect that the regulatory decision-making body of the ISA is the Council, not the Commission.

Regulation 61
Post-closure monitoring

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

2. The Contractor shall continue to monitor the Marine Environment for such period after the cessation of activities, as set out in the final Closure Plan.

3. The Contractor shall conduct a final performance assessment and submit a final performance assessment report in accordance with the Guidelines to the Secretary-General to ensure that the closure objectives as described in the final Closure Plan have been met. Such report shall be reviewed by the Commission at its next meeting, provided that it has been circulated at least 30 Days in advance of the meeting.

I – Members of the International Seabed Authority

Chile

Chile considera que se debería establecer, a lo menos, un periodo mínimo basado en evidencia científica para la supervisión del medio marino, tras el cese de las actividades del **plan de cierre definitivo**. Esto, con la finalidad de conocer y evaluar la calidad ambiental de los ecosistemas.

Chile considera que el contratista debe entregar el informe final de evaluación del cumplimiento de los objetivos del plan de cierre definitivo. Al efecto, es necesario determinar el procedimiento a seguir en caso que el contratista no cumpla con el plan de cierre definitivo; o también, en caso de que la ejecución de las acciones contempladas en el plan de cierre definitivo no entregue los resultados deseados.

France

Projet d'articles 60, paragraphes 2 et 6 et 61, paragraphe 3 : Suggestion de remplacer « au moins 30 jours à l'avance » par « **au moins 30 jours avant l'ouverture de ladite séance** », plus précise et conforme à la version anglaise du projet de règlement.

Italy

DR61 (2)	There is a discretional component regarding the duration of the post-closure monitoring plan which is unacceptable.	The Contractor shall continue to monitor the Marine Environment for such period after the cessation of activities as is set out in the final Closure Plan for the duration provided by the relevant Guidelines.

II – Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

The Pew Charitable Trusts

Post-closure monitoring

1. ~~Upon cessation or suspension of activities in the Mining Area, a~~A Contractor shall implement the final Closure Plan in accordance with the conditions of its implementation, and shall report to the Secretary-General on the progress of such implementation, including the results of monitoring under paragraph 2 below~~.~~ as set out in the final Closure Plan.

2. The Contractor shall continue to monitor the Marine Environment for such period after the cessation ~~or suspension~~ of activities as is set out in the final Closure Plan. […]

Adding a specified minimum time-period for post-closure monitoring to DR61 would improve certainty for all stakeholders, including Contractors (monitoring for 5-years vs. in perpetuity, for example, would have very different cost implications).

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 plain language and in an official language of the Authority together with an official English-language version, where applicable;

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

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

2. Template for Environmental Impact Statement

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

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

I – Members of the International Seabed Authority

Chile

Chile sugiere que sería importante establecer un entendimiento consensuado sobre el término "**Declaración de Impacto Ambiental**".

¿Qué se entiende por este concepto?

Se trata de generar un procedimiento para obtener mayores antecedentes como:

Ejecución de líneas bases ambientales;
Definición y dimensionamiento de impactos;
Incorporación de medidas de mitigación, reparación y compensación según los impactos y Plan de Seguimiento Ambiental de las variables impactadas y de las medidas de mitigación y reparación.

Esta evaluación de impacto ambiental debe concebirse sobre la base del principio precautorio.

1. **Preparación de una declaración de impacto ambiental**

Literal b)

Una mejor evaluación del impacto ambiental debería considerar **escala, magnitud, intensidad, extensión, duración, probabilidad de ocurrencia, reversibilidad y significado, entre otros.**

Podría emplearse como base una metodología para identificar y valorizar los impactos, como la utilizada por la FAO siguiendo la metodología de ***Criterios Relevantes Integrados*** (Buroz, 1994).

Por su parte, es necesario que la Autoridad desarrolle ciertos criterios respecto de la importancia de los efectos ambientales, de manera que se puedan evaluar aquellos efectos que los proponentes consideran o no consideran importantes y aceptar o rechazar sus justificaciones.

2. **Plantilla de declaración de impacto ambiental**

Para que la información presentada no tenga ambigüedades, Chile sugiere incorporar la metodología de evaluación utilizada.

Párrafo 2

Chile sugiere reemplazar la frase "***podría dar lugar a la elaboración de***" por "***por lo mismo se requieren***" y reemplazar la frase "***como apoyo del proyecto de***" por "***complementarias al***".

China

The items listed in Environmental Impact Statement in this part are too complex to operate effectively. Firstly, some of the items involve the frontier issues of basic science, such as connectivity, ecosystem function and life-history, which are obviously beyond Contactors' scientific research capacity and beyond their obligations under the contract. Secondly, the assessment of certain items may not be necessary. According to the Exploration Regulations, the applicant should ensure that relevant installations "are not established where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity." Therefore, neither the exploration area nor the exploitation area would be located within fishing areas or overlapped with sea lanes. Thus it may not be necessary to assess the impact upon fisheries and marine traffic for exploitation. It is proposed therefore that the Environment Impact Statement should delete the unnecessary assessment items. It is also suggested the Environment Impact Statement should differentiate "activities not requiring environmental impact assessment" from "activities requiring environmental impact assessment" in light of the Recommendations for the Guidance of Contractors for the Assessment of the Possible Environmental Impacts Arising from Exploration for Marine Minerals in the Area (ISBA/25/LTC/6) issued by Commission.

Germany

Annex IV:
"1. Preparation of an Environmental Impact Statement The Environmental Impact Statement prepared under these regulations and the present annex shall: […] (b) Provide information based on data from, as a general rule, 15 years of monitoring, and in accordance with the relevant regulations, Standards and Guidelines, corresponding to the scale and potential magnitude of the activities, to assess the likely environmental effects of the proposed activities. Such effects shall be discussed in proportion to their significance. Where an applicant considers an effect to be of no significance, there should be sufficient information to substantiate such conclusion, or a brief discussion as to why further research is not warranted;

Italy

Annex IV Executive Summary 4.5		Describe the nature and extent of the mineral resource and bedrock within a broader geological context. Describe the ~~general geological landscape and topographic features~~ geological, petrographical and geomorphological setting of the site, including high resolution bathymetric maps.
Annex IV Executive Summary 4.8	We suggest to include a paragraph on the mineralogical/petrographical/physical characteristics of the ore, which determines the mining strategies, together with the geological/geomorphological setting, and therefore the types of impacts to be expected.	
Annex IV Executive Summary 7.4		Provide a description of impacts the mining operation may have on the ~~topography~~ geomorphology of the site or its ~~geological/geophysical composition~~ sedimentary and geological characteristics

Mexico

México considera que los planes y evaluaciones del impacto ecológico y ambiental de las actividades de explotación minera en mares profundos a los que se hace referencia en los **Anexos IV y VII** del Código de Explotación, deben de considerar:

- Asesorías de profesionales expertos en las diversas áreas relacionadas con las actividades de explotación y las zonas marinas y sus ecosistemas, desde una perspectiva multidisciplinaria.
- Evaluaciones de los impactos, reacciones y demás afectaciones a corto, mediano y largo plazo, que tengan en cuenta que las afectaciones en los fondos marinos. Estas evaluaciones dependerán del tipo de recurso mineral, de la duración de las actividades de extracción y de las condiciones geobiológicas y fisicoquímicas del área en donde éstas se desarrollen. Asimismo, deben de considerar muestreos de múltiples sitios, estadísticamente representativos en calidad y cantidad de datos, para evitar sesgos y ser comparadas con las condiciones originales del sitio al que estarán relacionadas.
- Pugnar por una estandarización de las metodologías de investigación, evaluación y uso y manejo de los datos que permitan su comprensión, comparación y confirmación, como un ejercicio de transparencia.
- Una evaluación que considere el impacto antes, durante y después de las actividades mineras, así como una propuesta no sólo de mitigación o remediación sino de reparación en caso de daños graves.

New Zealand

	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 plain language and in an official language of the Authority together with an official English-language version, where applicable; (b) Provide information, in accordance with the relevant regulations, Standards and Guidelines, corresponding to the scale and potential magnitude of the activities, to assess the likely Environmental Effects of the proposed activities. Such effects shall be discussed in proportion to their significance. Where an applicant considers an effect to be of no significance, there should be sufficient information to substantiate such conclusion, or a brief discussion as to why further research is not warranted; and (c) Include a non-technical summary of the main conclusions and information provided to facilitate understanding of the nature of the	Regulation 47(3) provides that: "The EIS *shall* be in the form prescribed by the Authority in annex IV to these Regulations" (emphasis added) whereas annex IV itself states that the template for the EIS is recommendatory only. To ensure consistency with regulation 47(3), the language of annex IV should be strengthened to reflect that an EIS must be prepared in accordance with the template.

activity by Stakeholders.

2. Template for Environmental Impact Statement

The ~~recommended~~ format for an Environmental Impact Statement is outlined below. Environmental Impact Statements must be prepared in accordance with this template. It is intended to provide the International Seabed Authority, its member States and other stakeholders with unambiguous documentation of the potential Environmental Effects on which the Authority can base its assessment, and any subsequent approval that may be granted. Further detail for each section is provided following the overview.

~~The document is a template only, and is not intended to be prescriptive but rather to guide the format and general content of an Environmental Impact Statement. It does not provide details of methodology or thresholds that may be resource- and site-specific. These m~~Methodologies and thresholds which may be resource-specific and site-specific will ~~may~~ be developed as Standards and Guidelines to support the regulations.

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United States of America

Regulation 47.3 provides that the Environmental Impact Statement shall be in the form prescribed by the Authority in Annex IV to these regulations.

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

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

Commented [A68]: Assessment of what? Would help to specify here, unless it simply means on which the Authority can base its decision.

Deep Ocean Stewardship Initiative

- Overall, this template is quite comprehensive, however we are unsure how the Contractor will obtain the information on impacts, particularly since there has been no discussion of what constitutes an impact and the conditions under which what form of mitigation would be required. There are currently no goals, objectives or targets that the Contractor and the ISA can use as a guide to evaluate the EIS. Under this section, it is suggested that the EMMP is listed as a separate document, but that it can be used as an opportunity to highlight some of the key issues from the EIS to be addressed in the EMMP. The EIS and EMMP need to be tightly linked. The EIS should identify the parameters and activities that must be monitored and provide the metrics for both impact and mitigation; the EMMP needs to outline the implementation of a plan that will allow the obtaining of these metrics. The EMMP should directly refer to the EIS rather than to only key issues arising from it.
- Several sections list the need for defining mitigation measures, but there is no mention of testing mitigation measures or initial studies showing that certain measures are appropriate or effective.
- Within the EIS, each element requiring regional overview (e.g.,, Section 4.2, 5.2) and an assessment of cumulative impacts of the mining activity (e.g., 7.13, 8.7) should include specific reference to the REMP and assessing cumulative impacts at this scale.
- The EIA shall consider climate change as a source of uncertainty and shall be incorporated as: quantification of projected changes, inclusion in risk assessment, inclusion in mitigation planning, and quantification of mine project contributions to climate change.

1. Preparation of an Environmental Impact Statement (p.74)
   The Environmental Impact Statement for an individual Contractor should also take into consideration the region as a whole and the relevant REMP. Just as the Closure Plan (Annex VIII) is said to "be prepared and implemented in accordance with the Guidelines and the relevant regional environmental management plan,", the EIS should be prepared in accordance with the relevant REMP. This could be addressed in 1(b) and would link to DR 47(3)(c) that calls for the EIS to be in accordance with the objectives and measures of the relevant REMP.
2. Template for Environmental Impact Statement (p.74)

States that "this is a template only and is not prescriptive but rather a guide to format and populate the content of EIS". Guidance is not legally binding. The template should set standards that are implemented by Contractors.

States that "methodologies and thresholds may be developed as Standards and/or Guidelines to support the regulations." The 'Standards and Guidelines' are essential in the operationalization. DR 1.5 says that "these regulations are supplemented by Standards and Guidelines", but to date no such supplementary documents exist. It is not possible to understand the full contracting procedures and obligations without these documents.

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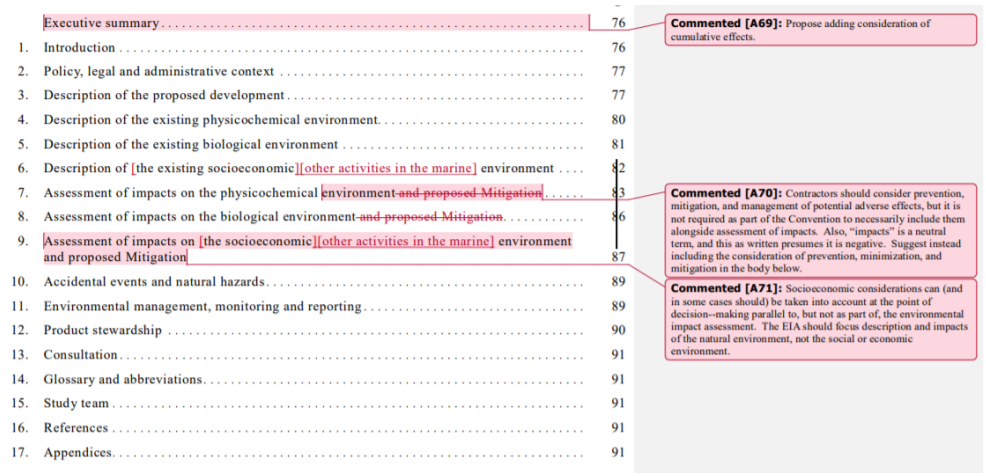
United States of America



Commented [A69]: Propose adding consideration of cumulative effects.

Commented [A70]: Contractors should consider prevention, mitigation, and management of potential adverse effects, but it is not required as part of the Convention to necessarily include them alongside assessment of impacts. Also, "impacts" is a neutral term, and this as written presumes it is negative. Suggest instead including the consideration of prevention, minimization, and mitigation in the body below.

Commented [A71]: Socioeconomic considerations can (and in some cases should) be taken into account at the point of decision--making parallel to, but not as part of, the environmental impact assessment. The EIA should focus description and impacts of the natural environment, not the social or economic environment.

Executive summary

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

(a) A description of the proposed development and its objectives;

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

(c) Anticipated impacts of the activity (physicochemical, biological, socioeconomic);

(d) Mitigation measures to minimize environmental impacts;

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

(f) Consultation undertaken with other parties.

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Germany

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:
[…]
(e) Linkages with ISA global environmental policy and strategy, the applicable regional environmental management plan and the development of the Environmental Monitoring and Management Plan; and

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- (c) "anticipated impacts of the activity (physicochemical, biological, socioeconomic)". Add: "including expected recovery rates of the system to its original state". Recovery rates differ between systems and should be clearly stated and acknowledged.
- (d) We recommend to include a brief evaluation of the effectiveness of mitigation measures, as well as highlight any residual impacts that may occur despite mitigation. The Executive Summary should outline both the potential benefits and costs of a project.

1. Introduction

1.1 Background

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

1.2 Project viability

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

1.3 Project history

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

1.4 Project proponent

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

1.5 This report

1.5.1 Scope

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

1.5.2 Report structure

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

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

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1.5.1 Scope

- The scope should include the geographic scope of the EIS i.e. the mine area or project area or beyond Contractor area as needed. Identifying the spatial scope of the EIS is different from identifying the spatial extent of the project (Section 3.3.1).

2. Policy, legal and administrative context

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

2.1 Applicable mining and environmental legislation, policy and agreements

Outline the national and international legislation, regulation or guidelines that apply to the management or regulation of Exploitation in the Area, including how the proposed operation will comply with them.

2.2 Other applicable legislation, policies and regulations

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

2.3 Applicable international and regional agreements

List the international agreements applicable to the operation, such as the United Nations Convention on the Law of the Sea and the International Maritime Organization suite of environmental and safety conventions, which includes the International Convention for the Safety of Life at Sea (SOLAS), the International

Convention for the Prevention of Pollution from Ships (MARPOL) and the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention), and applicable regional agreements.

2.4 Other applicable standards, principles and guidelines

Discuss applicable standards and guidelines that will be adhered to or aligned with throughout the operation, such as the Standards and Guidelines of the International Seabed Authority, the Equator Principles, the Environmental Management Standards of the International Organization for Standardization, the Code for Environmental Management of Marine Mining of the International Marine Minerals Society, the Performance Standards on Environmental and Social Sustainability of the International Finance Corporation and the standards of the Extractive Industries Transparency Initiative.

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Germany

(2.1) Applicable mining and environmental legislation, policy and agreements: Outline the national and international legislation, regulation or guidelines, as well as the Regional Environmental Management Plan that apply to the management or regulation of Exploitation in the Area, including how the proposed operation will comply with them.
[…]

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United States of America

2.2 Other [applicable][relevant] legislation, policies and regulations

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

2.3 Applicable international and regional agreements

List the international agreements applicable to the operation, such as the United Nations Convention on the Law of the Sea and the International Maritime Organization suite of environmental and safety conventions, which includes the International Convention for the Safety of Life at Sea (SOLAS), the International Convention for the Prevention of Pollution from Ships (MARPOL) and the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other

Commented [A72]: Recommend deleting. As noted previously, a binding international agreement is applicable to states parties to the agreement and not as such to nationals or others under the jurisdiction of a state party. The agreement may be relevant when applied by domestic law or regulation of a state party to its nationals and others under its jurisdiction. In this regard, the information in 2.3 will already be addressed in 2.1 and 2.2.

Advisory Committee on Protection of the Sea

Our observations on this Annex are limited to its section 2: "Policy, Legal and Administrative Context" as set out in ISBA/24/LTC/WP.1/Add.1. This section presents three major issues, briefly summarized here and addressed in detail below.

1)The purpose and relevance of this section 2 are wholly unclear. Why is this section relevant to stating/ascertaining/assessing the **environmental consequences** of an activity, which is the purpose of an EIS/A?

2) Furthermore, this section 2 as currently structured and drafted is incompatible with the LOSC/IA and with their status in international law.

3) Finally, given that the purpose of a Regulator is to regulate, where in the LOSC/IA is it permitted for the Regulator to abdicate responsibility for specifying the applicable law and its requirements and leave this up to the entities it is legally obliged to regulate with regard to deep-sea mining?

Our reasons for these concerns are as follows.

First, the structure of section 2 reveals a profound and disturbing misunderstanding of the legal regime applicable to activities in the Area. The LOSC is not only placed in the third category of elements to be addressed (item 2.3), but it is there also incorrectly placed on a legal par with the other instruments listed, as well as being placed in a position of legal authority inferior to that of the instruments of less, if any, status in international law listed in items 2.1 and 2.2.

This is completely at variance and incompatible with the actual legal context in which activities in the Area **must in law** be conducted and evaluated. The LOSC is the governing international legally binding instrument for oceans in general and the Area in particular, and for the latter the IA is added.

The LOSC already addresses the types of and relationships with legally binding international treaties and conventions, including multilateral trade agreements, and rules of international law, in accordance with which, as relevant and appropriate, activities in the Area are to be carried out under the auspices of the International Seabed Authority.

Furthermore, the body of international law within which the LOSC operates, and the operation of the LOSC itself, are exceedingly complex. The nature and mechanisms of their application to the Area and to the activities of the Area, including with regard to the marine environment, cannot be considered as being so clear and settled that a request by the regulator for their description and analysis by an applicant to conduct an activity in the Area can reasonably be made. Nor is it at all clear what purpose such an analysis would serve in the context of an EIA/S. Indeed it is likely that such a request would be inconsistent with the requirements set out by the LOSC itself with regard to how the activities in the Area are to be organized, carried and controlled by the ISA, if only because there must be a level playing field among contractors, at least insofar as regulation by the ISA is concerned.

Other questions raised by this Section 2 include:

Why is this section relevant at all to a statement/assessment of environmental impacts?

Why is the applicant being required to describe the applicable legal regime? Does the regulator not consider itself to be cognizant of and familiar with the legal basis pursuant to which the assessment is being conducted? And if not, why not, and then if not, what is the purpose of the regulator?

But if for some reason (that totally escapes us) this is indeed the case, why is the applicant, clearly an interested party - which is not to be considered in any way as a negative attribute - the appropriate source for legal advice to the regulator on the applicable law? Where is the required level playing field here?

In the same vein, why is the applicant being required to assess its own compliance with the law? Is the regulator not capable of doing this? If not, why not, and then if not, what is the purpose of the regulator? Where is the required level playing field here?

With regard to "policies" (items 2.1 and 2.2), their establishment for activities in the Area is within the sole purview of the ISA, and specifically the Assembly (Art. 160(1)). Policies promulgated by other international bodies, especially if they are not legally binding, may or may not be taken into account by the ISA. Whether and if so how to do so is entirely at the ISA's discretion. Unless and until the Assembly

has formally done so, it is incompatible with the LOSC to require an applicant to take them into account. The same issues raised above re requiring the applicant to list them also apply here.

With regard to item 2.4, why is the applicant being required to describe non-legally-binding instruments? On what legal basis are these instruments considered to be relevant at all?

The only non-legally-binding guidelines, standards, principles, etc. (collectively referred to as "guidelines" in this comment), which any entity applying to conduct an activity in the Area **must** take into account, pursuant to the LOSC, are those formally issued or endorsed by the ISA.

For both policies and "guidelines," this sole formal source in this context is necessary, *inter alia*, to ensure that a level playing field of requirements for conducting activities in the Area is maintained among all contractors.

The examples of other "guidelines" set out in item 2.4 apparently considered to be potentially relevant by the drafters of this section have not been so endorsed by the ISA.

It must also be noted that these non-ISA examples have not been universally accepted or adopted by their own constituents either and remain subjects of debate. Even were this not the case, the legal basis against their consideration in this context remains unchanged.

This item 2.4 furthermore and again erroneously places the ISA's own guidelines on a legal par with these others, which is incompatible with the governance hierarchy of instruments applicable to activities in the Area set out in the LOSC. That hierarchy does not include guidelines from other sources that have not been formally endorsed by the ISA.

In any event, whether or not a given contractor has chosen to abide by any or all or none of these non-binding "guidelines" and non-ISA policies is irrelevant both in law and in fact, as that choice is not pertinent to stating/ascertaining the environmental consequences of the activity being examined, which is the objective of this document.

In conclusion: this entire item 2 as currently structured and drafted is incompatible with the LOSC/IA and with their status in international law, and it fails to satisfy the obligations of the regulator to set out and define the applicable law with which the Contractors must comply insofar as this is necessary for the evaluation of an EIA/S.

In our original submission, we recommended removal of this section 2 from the EIA template. Because of the inaccuracy in characterizing the legal status of all the instruments set out in this draft Section 2 and the inadequacy in the exercise of the legally required role of the regulator in this context - which role is to regulate; it is not to invite Contractors to submit essays opining on their assessment of applicable legally binding and non-binding instruments - here we urge a fundamental review of this Section 2 in light of the objections raised above. In particular we stress the legal requirement to place the full and unqualified and sole responsibility on the regulator to specify clearly which, if any, non-LOSC/IA binding and non-binding instruments it requires the Contractors to follow, and to specify clearly how the Contractors are to demonstrate that they are following these instruments in their EIA/S, and on the legal requirement that the Regulator must exercise this responsibility.

Deep Ocean Stewardship Initiative

2. Policy, legal and administrative context

- Section 2.1 requires the Contractor to outline "how the proposed operation will comply" with mining and environmental legislation, policies and agreements. Section 2.2, 2.3 and 2.4 require the Contractor to outline other applicable legislation, policies, regulations, international and regional agreements, as well as standards, principles and guidelines. However, Section 2.2, 2.3 and 2.4 do not require the Contractor to outline how the operation will comply with these policies. We recommend, for those relevant to the proposal in Section 2.2, 2.3 and 2.4, the Contractor also outlines how the proposed operation will comply.

3. Description of the proposed development

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

3.1 Project area definition

3.1.1 Location

Include coordinates of the project area, detailed location maps (drawn to scale), a layout of the site and the locations of impact reference zones and preservation reference zones.

3.1.2 Associated activities

Describe the supporting activities and infrastructure required (e.g., transportation corridors) that are outside the direct mining site.

3.2 Mineral resource

Provide details of the type of resource proposed for extraction (e.g. sea floor massive sulphides, polymetallic nodules, ferromanganese crusts), the type of commodity and its grade and volume. Estimates of the inferred and indicated resource should be provided, along with visual models of the resource.

3.3 Project components

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

3.3.1 Project scale

Provide an overview of the spatial and temporal scales of the mining operation, including volumes of material to be recovered, processed and deposited or discharged into the water column or back to the seabed. This should include an account of the area to be physically mined, as well as the likely extent of any secondary impacts (e.g., sediment plumes), which will be discussed in greater detail later.

3.3.2 Mining

Provide details of the technologies to be employed, including relevant diagrams and drawings, that address: the Mining Workplan, timelines and the general mining sequence, the technologies to be employed to recover the resource from the seabed, the depth of penetration into the seabed and other details of the mining activities.

3.3.3 Transport/materials handling

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

3.3.4 On-site processing

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

Include a description of the disposal and discharge of sediment, wastes or other effluents into the Marine Environment and the disposal of waste from general ship operations. The handling and management of hazardous materials should also be described, together with a description of the nature of such material and its transportation, storage and disposal.

3.3.5 Support equipment

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

3.4 Commissioning

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

3.5 Construction and operating standards

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

3.5.1 Design codes

3.5.2 Health and safety

3.5.3 Workforce description

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

3.6 Decommissioning and closure

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

3.7 Other alternatives considered

Provide an account of alternative options that were considered and rejected in favour of the current proposal. Aspects should include the selection of the mine site, mine production scenarios, transport and materials handling and shipboard processing.

3.8 Development timetable (detailed schedule)

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

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

I – Members of the International Seabed Authority

Chile

3. Descripción de las actividades propuestas

Chile considera que, para asegurar una gestión racional y un concreto cuidado ambiental correspondiente en toda la cadena productiva, aquellas actividades que se basen en tierra deberían realizarse en territorios que posean ***Sistemas de Evaluación de Impacto Ambiental*** establecidos e institucionalidad ambiental adecuada.

En este sentido, los contratistas deberían explicar que normativa se les aplica fuera de BBNJ y como abordarán el procedimiento de obtención de permisos y autorizaciones correspondientes.

Chile sugiere incorporar el concepto de Área de Influencia del proyecto, para levantar información sobre los diferentes componentes ambientales de la columna de agua, sedimento y comunidades biológicas en toda el área de afectación del proyecto; esto es, el sector donde se realizará la exploración o explotación y aquellas áreas que serán afectadas por la pluma de dispersión generada de la misma actividad.

No se debería entregar un contrato de explotación que incluya etapas en tierra, sin contar con las respectivas autorizaciones.

3.3.1 Escala del proyecto

Con respecto a los posibles efectos secundarios, además de su magnitud, los contratistas deberían entregar otros parámetros de valorización de impactos, como extensión, duración, probabilidad de ocurrencia, reversibilidad, etc.

France

Paragraphe 3.4 – Mise en service : Suggestion de remplacer le terme actuellement employé de « ménagement » par celui de « création », plus conforme à la signification recherchée (« *establishement* » en anglais).

Germany

(3.8) Development timetable (detailed schedule):
Provide a description of the overall timetable, from the implementation of the mining programme to the decommissioning and closure of operations. The description should include the major phases of the operation as well as the milestone dates on which relevant tasks are expected to be completed. Information on the development timetable provided under this section should clearly communicate the different phases in the development proposal. For reasons of clarity, a flow chart or a Gantt or PERT (Programme Evaluation and Review Technique) chart should be used where appropriate. Information provided in this section should include, but not be limited to, the following:
[…]
(b) Pre-construction activities; including the development and testing of mining equipment, operations and systems in situ (if applicable);
[…]

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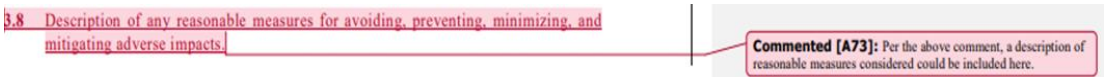
United States of America



Deep Ocean Stewardship Initiative

3. Description of the proposed development

3.1.1 Location

- A broader scale location map should also be produced so that the location of the project area is understood in relation to adjacent claims and boundaries of national jurisdiction (i.e., Exclusive Economic Zones and Extended Continental Shelf Claims).
- In addition to defining the project area (recommend a clear definition), and the control reference zones, suggest a map of the expected impact area (including secondary plume and contaminant impacts) be provided.

3.3.1 Project scale

- If discharged into the water column, a target depth range should be given for the discharged material. Additionally, justification for this choice should be given.

3.3.5 Support equipment

- Description should include the anticipated routes of vessels so that any potential impacts of additional ship traffic can be evaluated with other marine activities.

3.7 Other alternatives considered

- The reasons for the selection and rejection of alternatives are important; recommend they be presented, ideally accompanied by a formalised decision-making process that takes into account key environmental considerations. Thus, if one option is shown to have better environmental or socioeconomic outcomes, the Contractor's reasoning for rejection would be clear.
- We recommend the alternatives considered explicitly include the alternatives for the mitigation of impacts with the benefit and cost of these mitigation options be detailed.
- How will the no-mining option be addressed?

Institute of Advanced Sustainability Studies

97. Annex IV, item 3.1.1 of the EIS Template should be extended to include information on any other known spatial measures and other uses of the marine environment in the vicinity. Thus, it should read "Include coordinates of [...] and preservation reference zones, 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."

4. Description of the existing physicochemical environment

Give a detailed account of knowledge of the environmental conditions at the mine site, which should include information from a thorough literature review as well as from on-site studies. The account will provide the baseline description of the geological and oceanographic conditions against which impacts will be measured and assessed. The detail in this section is expected to be based on a prior environmental risk assessment that will have identified the main impacts, and thus the elements that need to be emphasized in the environmental impact assessment

4.1 Key messages

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

4.2 Regional overview

Describe the general environmental conditions of the site, including the geological and oceanographic setting within a broader regional context. This should be brief section that includes a map. A more detailed site-specific description will be provided in accordance with the sections below.

4.3 Studies completed

Describe any prior research/Exploration that could provide relevant information for this Environmental Impact Statement and future activities. These should be detailed in the appendices, and the environmental reference baseline data collected for the Authority, as outlined in the exploration contract conditions, should accompany the Environmental Impact Statement

4.4 Meteorology and air quality

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

4.5 Geological setting

Describe the nature and extent of the mineral resource and bedrock within a broader geological context. Describe the general geological landscape and topographic features of the site, including bathymetric maps.

4.6 Physical oceanographic setting

Provide a description of oceanographic aspects such as currents, sedimentation rates and waves. Seasonal variability is an important element. Detail is required on the regional setting, as well as the specific site, and should include changes in physical conditions and processes according to depth and horizontal distance from the proposed mine site (near-field, far-field)

4.7 Chemical oceanographic setting

Provide a description of water mass characteristics at the site and at various depths of the water column, in particular near the sea floor, that includes nutrients, particle loads, temperature and dissolved gas profiles, vent-fluid characteristics if applicable, turbidity and geochemistry, etc.

4.8 Seabed substrate characteristics

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

4.9 Natural hazards

Provide a description of applicable potential natural hazards for the site, including volcanism, seismic activity, cyclone/hurricane trends, tsunamis, etc.

4.10 Noise and light

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

4.11 Greenhouse gas emissions and climate change

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

4.12 Summary of the existing physicochemical environment

Summarize key findings and include notes on special considerations for hydrothermal vents, seeps, seamounts and oceanographic fronts or eddies. It is anticipated that this summary will be up to one page, and be more extensive than the key messages section.

I – Members of the International Seabed Authority

Australia

4.3 Studies completed

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

4.4 Meteorology and air quality

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

Commented [AUS96]: Australia considers that it is critical to establish sufficient baseline data to understand fully what impacts the proposed mining will have on the site, and how these impacts can be minimized and managed. Consideration is required as to whether the baseline data collected for the Authority, as per the requirements in the Exploration Regulations, is sufficient to achieve this purpose.

In the "Studies completed" paragraphs for physicochemical (4.3) and biological (5.3), we recommend that a description of the methods used for completing the studies be included and that those methods reflect best practice. For example: Describe prior research/Exploration (including methods reflecting best scientific practice) that could provide relevant information for this Environmental Impact Statement and future activity.

Chile

4. Descripción del entorno fisicoquímico existente

Se requiere pactar que los estudios sobre el terreno deben ser adecuadamente representativos, incluyendo campañas estacionales y muestreos bien diseñados. Aplicable también al **numeral 5. Descripción del entorno biológico existente.**

En lo relativo a la evaluación previa de los riesgos ambientales (en este y otros numerales), faltaría aclarar y estipular cuando se realizará, qué metodología se empleará, quién lo validará y aprobará los resultados, entre otros aspectos.

Germany

(4) Description of the existing physicochemical environment: Give a detailed account of knowledge of the environmental conditions at the mine site, which should include information from a thorough literature review as well as from on-site studies. The Standard on baseline investigations shall guide the drafting of this section by providing information on the minimum amount of detail required for an acceptable baseline description. The account will provide the baseline description of the

geological and oceanographic conditions against which impacts will be measured and assessed. The detail in this section is expected to be based on a prior environmental risk assessment that will have identified the main impacts, and thus the elements that need to be emphasized in the environmental impact assessment.
[…]

(4.2) Regional overview: Describe the general environmental conditions of the site, including the geological and oceanographic setting within a broader regional context and refer to the applicable Regional Environmental Management Plan. This should be brief section that includes a map. A more detailed site-specific description will be provided in accordance with the sections below.
[…]

(4.5) Geological setting: Describe the nature and extent of the mineral resource and bedrock within a broader geological context. Describe the general geological landscape and topographic features of the site, including bathymetric maps and sedimentation rates, and refer to special features such as hydrothermal vents, seeps and seamounts.

(4.6) Physical oceanographic setting: Provide a description of oceanographic aspects such as currents, oceanographic fronts, eddies, particle flux ~~sedimentation rates~~ and waves. Detail is required on the regional setting, as well as the specific site, and should include changes in physical conditions and processes according to depth and horizontal distance from the proposed mine site (near-field, far-field).

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

Italy

Part No./ Section No./ Draft Reg. No.	Comment description	Proposal for Draft Regulation text editing (in red)
Annex IV Executive Summary 4.5		Describe the nature and extent of the mineral resource and bedrock within a broader geological context. Describe the general geological landscape and topographic features geological, petrographical and geomorphological setting of the site, including high resolution bathymetric maps.
Annex IV Executive Summary 4.8	We suggest to include a paragraph on the mineralogical/petrographical/physical characteristics of the ore, which determines the mining strategies, together with the geological/geomorphological setting, and therefore the types of impacts to be expected.	

Russian Federation

42.	**Environmental Impact Statement (Annex IV), paragraphs 4.3 and 5.3**	<….> and the environmental reference baseline data collected for the Authority, as outlined in the exploration contract conditions, should accompany the Environmental Impact Statement.	It is proposed to exclude this provision as inappropriate.	Taking into account the likely large volumes of such baseline data and the fact that all of them will be submitted to the Authority for inclusion in the database by the time of submission of Application for exploitation, the question arises whether they should be re-submitted.
43.	**Environmental Impact Statement (Annex IV), paragraphs 4.6, 7.5.**	Para. 4.6: Physical oceanographic setting Provide a description of oceanographic aspects such as currents, sedimentation rates and waves. <…> Para. 7.5: Physical oceanographic setting Provide a description of the effects on the current speed/direction and sedimentation rates, etc. <..>	It is proposed to delete the words "sedimentation rates" from this paragraph.	The sedimentation rate is geological (lithological) parameter, and not oceanographic one.
44.	**Environmental Impact Statement (Annex IV), paragraphs 4.5, 7.4**	Para. 4.5: Geological setting Describe the nature and extent of the mineral resource and bedrock within a broader geological context. Describe the general geological landscape and topographic features of the site, including bathymetric maps. Para 7.4: Geological setting Provide a description of impacts the mining operation may have on the topography of the site or its geological/geophysical composition.	It is proposed to reflect in the text of these paragraphs the need to study the sedimentation rate.	The sedimentation rate is geological (lithological) parameter, and not oceanographic one.
45.	**Environmental Impact Statement (Annex IV), paragraph 4.7**	Chemical oceanographic setting Provide a description of water mass characteristics at the site and at various depths of the water column, in particular near the sea floor, that includes <…> geochemistry, etc.	It is proposed to delete the words "geochemistry" from this paragraph.	One can speak about geochemical characteristics as applied to geological objects (sediments, hard-rock substrates, ores, etc.), and not to water masses.

46.	**Environmental Impact Statement (Annex IV), paragraphs 4.5, 4.8, 7.4, 7.7**	Para. 4.5: Geological setting Describe the nature and extent of the mineral resource and bedrock within a broader geological context. Describe the general geological landscape and topographic features of the site, including bathymetric maps. Para. 4.8: Seabed substrate characteristics Provide a description of substrate composition, including physical and chemical properties (e.g., sediment composition, pore-water profiles, grain size, sediment mechanics). Para. 7.4: Geological setting Provide a description of impacts the mining operation may have on the topography of the site or its geological/geophysical	It is proposed to reflect in the text of these paragraphs (4.5 and 7.4, or 4.8 and 7.7, or in all four) the need to study geochemistry.	One can speak about geochemical characteristics as applied to geological objects (sediments, hard-rock substrates, ores, etc.), and not to water masses.

		composition. Para. 7.7: Seabed substrate characteristics For example: changes in the sediment composition, grain size, density and pore-water profiles.		
47.	**Environmental Impact Statement (Annex IV), paragraphs 4.7, 7.6; 4.6, 7.5**	Para. 4.7: Chemical oceanographic setting Provide a description of water mass characteristics at the site and at various depths of the water column, in particular near the sea floor, that includes <…> temperature <…>, turbidity <…>. Para. 7.6: Chemical oceanographic setting Provide a description of the effects such as <…> the clarity of water <…> water temperature, <…> in all relevant levels of the water column. <…> Para. 4.6: Physical oceanographic setting Provide a description of oceanographic aspects such as currents, sedimentation rates and waves. Seasonal variability is an important element. Detail is required on the regional setting, as well as the specific site, and should include changes in physical conditions and processes according to depth and horizontal distance from the proposed mine site (near-field, far-field) Para. 7.5: Physical oceanographic setting Provide a description of the effects on the current speed/direction and sedimentation rates, etc. A regional oceanographic model will be relevant to this section.	It is proposed to edit the content of these paragraphs, taking into account the fact that the temperature of the water, its turbidity and clarity are the physical and not chemical characteristics of the water column. It is also needed to harmonize terminology (turbidity and clarity are different characteristics of the water column, although related to each other). It is proposed to add the list of the physical characteristics of the water column with salinity.	The water temperature, turbidity and clarity are the physical and not chemical characteristics of the water column. Salinity is very important because of its affect the vital functions of organisms. Besides that, it determines the stability of the stratification of the water column (together with water temperature).

48.	**Environmental Impact Statement (Annex IV), paragraph 4.6**	Physical oceanographic setting <….> Detail is required on the regional setting, as well as the specific site, and should include changes in physical conditions and processes according to depth and horizontal distance from the proposed mine site (near-field, far-field)	It is proposed to clarify what is meant by “near-field” and “far-field”	To ensure that the content of the document is clear and unambiguous.
49.	**Environmental Impact Statement (Annex IV), paragraph 4.7**	Chemical oceanographic setting Provide a description of water mass characteristics at the site and at various depths of the water column, in particular near the sea floor <…>	It is proposed to change phrase “Provide a description of water mass characteristics at the site and at various depths of the water column, in particular near the sea floor” to “Provide a description of water mass characteristics above the site at various depths of the water column, in particular near the sea floor”.	If the site is a part of the seabed, then all water column (both at all depths and near the seabed) will be “at the site”.
50.	**Environmental Impact Statement (Annex IV), paragraph 4.12**	Summary of the existing physicochemical environment Summarize key findings and include notes on special	It is proposed to refer to the need to study oceanic fronts and eddies in the preceding paragraphs of the Environmental Impact Statement.	Paragraph 4.12 refers to key findings and special considerations regarding oceanic fronts and eddies, while above (in the preceding paragraphs) nothing is said about their study.

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Deep Ocean Stewardship Initiative

- As written, this gives the option of addressing in bullet points either the main aspects covered or the main findings. The "Key messages" sections in 4.1 (and 5.1, 6.1, 7.1, 8.1) should provide information about the main findings concerning environmental impacts, not an outline or overview of the report contents (aspects covered).
- Providing an overview of key content is useful but the Contractor should not be restricted to six bullet points if there are more findings that need to be summarized.

4.5 Geological setting

- We recommend including discussion of tectonic and geophysical stability.
- Seasonal oceanographic variability should be demonstrated, supported by at least three years of monitored data, as this will incorporate interannual variability. As such, recommend rewording the second sentence to "Seasonal and interannual variability are important elements."
- Climate change projections should be included.
- We recommend spelling out the elements included in geochemistry (O_2, pH, H_2S, CH_4, trace metals), etc. Also recommend including fluxes and rates relevant to mining impacts. This should also include all major climate variables (e.g. temperature, oxygen, salinity, pH, carbonate (calcite/aragonite) saturation), as well as projections of how and where they are likely to change over the next 50 years or time period of relevant to contract and subsequent post mining recovery.
    - Changing climate conditions should also be mentioned. Natural hazards should include metrics of climate hazard and cumulative climate hazard (climate change/variability) in the contract area.
- We recommend changing "gas and chemical emissions" to "gas and fluid emissions" as chemicals are contents of both.
- Effects of mining on ocean climate mitigation functions and services should be described (alteration of CO_2 uptake and sequestration and seafloor burial by the ocean; changes in nutrient cycling effects on wetland carbon uptake (shore-based operations).
- If special considerations are to be given to hydrothermal vents, seeps, seamounts, and fronts or eddies, these should have a separate section and not only be addressed in a one-page summary. The presence and location of these features should be identified. Their proximity to mining activity should be stated and depicted in a map. This summary should include particulate fluxes and organic carbon accumulation and burial rates, relevant to understanding the regulating services provided by the targeted environments.

The International Marine Minerals Society

Reference	Comment
Annex IV EIS, 4.5 Geological Setting	Should "topographic" be "bathymetric" OR "seafloor topography"? Some concerns were raised about the term "bedrock". Suggestion is to change wording to "Describe the geological setting, the nature and extent of the mineral resource and its host-rock or substrate. Provide a description of the regional geology, local geomorphological elements and bathymetric features of the site, including bathymetric maps"
Annex IV EIS, 4.8 Sediment substrate characteristics	This is geology. Consider including in Section 4.5 on host-rock or substrate

5. Description of the existing biological environment

The description of the site should be divided by depth regime (surface, midwater and benthic, where appropriate), and provide a description of the various biological components and communities that are present in or utilize the area. The detail in this section is expected to be based on a prior environmental risk assessment that will have identified the main impacts, and thus the elements that need to be emphasized in the environmental impact assessment.

5.1 Key messages

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

5.2 Regional overview

Provide general regional context, and include site-specific issues and characteristics, existing areas of particular environmental interest and national areas of adjacent countries, if any. References to relevant technical data and previous studies should also be included. This section should be brief, but provide broader context for the more detailed site-specific description below.

5.3 Studies completed

Describe any prior research/Exploration that could provide relevant information for this Environmental Impact Statement and future activity. These should be detailed in the appendices, and the environmental reference baseline data collected for the Authority, as outlined in the exploration contract conditions, should accompany the Environmental Impact Statement.

5.4 Biological environment

Address diversity, abundance, biomass, community-level analyses, connectivity, trophic relationships, resilience, ecosystem function and temporal variability. Any work on ecosystem models and appropriate ecosystem indicators, etc., should also be presented here. This section should span the size range from megafauna to microbial communities.

The description of the fauna is structured by depth range, as this enables a direct linkage to the source and location of an impact. For each depth zone, there should be a description of the main taxonomic/ecological groups (e.g., plankton, fish, marine mammals, benthic invertebrates, demersal scavengers), using the Authority's Guidelines.

5.4.1 Surface

Describe the biological environment from the surface to a depth of 200 metres, including plankton (phytoplankton and zooplankton), surface/near-surface fish such as tuna, and seabirds and marine mammals.

5.4.2 Midwater

Describe the biological environment in the open water from a depth of 200 metres down to 50 metres above the sea floor, and include zooplankton, nekton, mesopelagic and bathypelagic fishes and deep-diving mammals.

5.4.3 Benthic

Describe the benthic invertebrate and fish communities, including infauna and demersal fish, up to an altitude of 50 metres above the sea floor. This should include considerations of species richness, biodiversity, faunal densities, community structures and connectivity, etc. Bioturbation should also be covered in this section.

5.4.4 Ecosystem/community-level description

Summarize existing community or ecosystem studies that integrate elements of the above sections. The summary should consider early life-history stages, recruitment and behavioural information.

5.5 Summary of the existing biological environment

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

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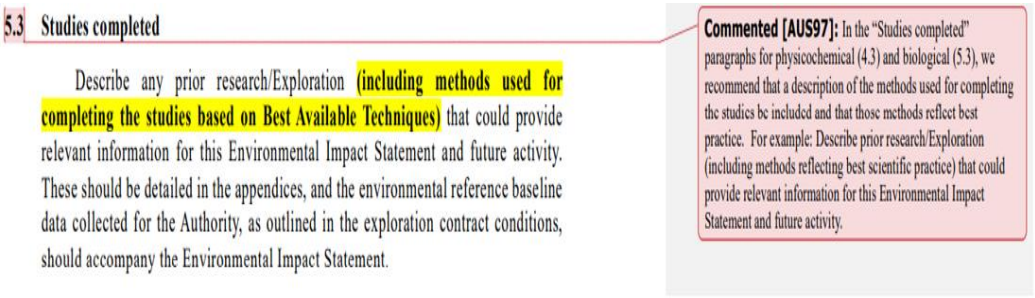
Australia



5.3 Studies completed

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

Commented [AUS97]: In the "Studies completed" paragraphs for physicochemical (4.3) and biological (5.3), we recommend that a description of the methods used for completing the studies be included and that those methods reflect best practice. For example: Describe prior research/Exploration (including methods reflecting best scientific practice) that could provide relevant information for this Environmental Impact Statement and future activity.

Chile

5. **Descripción del entorno biológico existente**

Chile considera que las especies biológicas deben asociase a sus correspondientes categorías de conservación. Considerando que hay una gran variedad de especies marinas aun no identificadas, se debería establecer un procedimiento frente a dichas situaciones.

Germany

(5.4) Biological environment: Address diversity, abundance, biomass, community-level analyses, connectivity, trophic relationships, resilience, ecosystem function and temporal variability. Any work on ecosystem models and appropriate ecosystem indicators, etc., should also be presented here. This section should span the size range from megafauna to microbial communities.
The description of the fauna is structured by depth range, as this enables a direct linkage to the source and location of an impact. For each depth zone, there should be a description of the main taxonomic/ecological groups (e.g., plankton, fish, marine mammals, benthic invertebrates, demersal scavengers), using the Authority's Guidelines.
The description here needs to detail the animal communities in the water column down to the mining area and beyond, their relationship to the natural habitat, including the mineral resource, and the functional ecological relationships across groups to assess the scale of impacts to be expected if mining occurs.
(5.4.1) Surface: Describe the biological environment from the surface to a depth of 200 metres, including plankton (phytoplankton and zooplankton), surface/near-surface fish such as tuna, and seabirds and marine mammals. The description should also evaluate the temporal and spatial variability in distribution and composition.
(5.4.2) Midwater: Describe the pelagic fauna and their habitat ~~biological environment~~ in the open water from a depth of 200 metres down to 50 metres above the sea floor, including zooplankton, nekton, mesopelagic and bathypelagic fishes and deep-diving mammals. The description should also evaluate the temporal and spatial variability in distribution and composition.
[…]

Russian Federation

	Regulation	Text of the Regulation	Comments / Remarks	Explanation
42.	**Environmental Impact Statement (Annex IV), paragraphs 4.3 and 5.3**	<…> and the environmental reference baseline data collected for the Authority, as outlined in the exploration contract conditions, should accompany the Environmental Impact Statement.	It is proposed to exclude this provision as inappropriate.	Taking into account the likely large volumes of such baseline data and the fact that all of them will be submitted to the Authority for inclusion in the database by the time of submission of Application for exploitation, the question arises whether they should be re-submitted.

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United States of America

5.4.3 Benthic

Describe the benthic invertebrate and fish communities, including infauna and demersal fish, up to an altitude of 50 metres above the sea floor. This should include considerations of species richness, uniqueness, biodiversity, faunal densities, community structures and connectivity, etc. Bioturbation should also be covered in this section.

Commented [A74]: Uniqueness should also be included here and is included in other similar lists in other international fora.

Secretariat on the Convention on Biological Diversity

Work under the CBD to facilitate the description of ecologically or biologically significant marine areas (EBSAs), can prove very useful in the development of the environmental impact statement, in particular with regards to providing a description of the existing biological environment (as referred to in section 5 of annex IV).

In this regard, section 5 of annex IV may be revised as follows:

"**5. Description of the existing biological environment**
The description of the site should be divided by depth regime (surface, midwater and benthic, where appropriate), and provide a description of the various biological components and communities that are present in or utilize the area ***and the ecological and or biological significance of these components***. The detail in this section is expected to be based on a prior environmental risk assessment that will have identified the main impacts, and thus the elements that need to be emphasized in the environmental impact assessment."

Deep Ocean Stewardship Initiative

5. Description of the existing biological environment

- "Biological environment" is not clear terminology. To most biologists, this would refer to the environment experienced by life in the ocean, not to the life itself. We recommend clearer terminology such as "Description of the Communities and Ecosystem Functions".
- Instead of using the terms "Surface, midwater and benthic" more specific wording may be used such as surface seawater, epipelagic zone (< 200 meters), mesopelagic zone (200 - 1000 meters), bathypelagic zone (1000 - 4000 meters), abyssopelagic zone (4000 - 6000 meters), hadalpelagic zone (> 6000 meters), demersal zone (part of the water column near to and significantly affected by the seabed), and benthic zone. Additionally, all of these depths need to be included so consider removing 'where appropriate'.

5.1 Key messages

- Same comments as in 4.1 above.

5.2 Regional overview

- We recommend specifying how the biological environment compares to regional biodiversity.
- We recommend including a requirement to note any special-interest areas identified by other regulatory or international bodies (including EBSAs, VMEs, PSSAs, MPAs, migration routes of endangered species, etc.).

5.4 Biological environment

- The first paragraph might reference the Standards and/or Guidelines so that the most up-to-date ecosystem indicators and best-scientific practices are used.

- What does community-level analyses refer to? If this is community composition (species-level taxonomy), please clarify. This is important because diversity, biomass, trophic relationships, etc., can also be community-level analyses.
- We recommend clarifying whether depth and depth zone in this section refers to water depth (as opposed to depth within sediments, etc.).
- Add the following: "(...) ecosystem function and services (...).'
- Climate change projections should be included. This could include changes in species distributions and habitat suitability for key or indicator species, changes in connectivity (due to circulation change), etc.

5.4.1 Surface

- We recommend including "microbes" in the statement "including microbes and plankton (phytoplankton and zooplankton)."

5.4.2 Midwater

- We recommend including "microbes" in the statement "and include microbes, zooplankton, nekton, mesopelagic and bathypelagic fishes and deep-diving mammals."

5.4.3 Benthic

- We recommend including "microbes" in the statement "Describe the benthic microbial, invertebrate and fish communities"
- We recommend including an assessment of those organisms that may temporarily interact with the seabed for feeding and reproduction. There are many demersal invertebrates (that reside within the 50 metres above the bottom so recommend changing "demersal fish" to "demersal fish and invertebrates". In addition to bioturbation, other biological properties that influence ecosystem services (solute fluxes, POC fluxes, carbon burial) or influence resilience and recovery (life histories), should be included.

5.4.4 Ecosystem/community-level description

- This section is a focus on levels above the species – communities and ecosystems. We recommend this section discuss emergent properties that arise when considering all species together, e.g. productivity, habitat heterogeneity, food-web complexity, carbon and nutrient cycling, bentho-pelagic coupling, biodiversity, succession, stability, etc.

5.5 Summary of the existing biological environment

- Again, use of the term "biological environment" is unclear. We recommend clearer terminology such as "Summary of the Communities and Ecosystem Functions".

6.Description of the existing socioeconomic environment

This section should describe the socioeconomic aspects of the project.

6.1 Key messages

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

6.2 Existing uses

6.2.1 Fisheries

If the project area occurs within an area used by fisheries, then this needs to be described here. This should include description of areas of significance for fish stocks, such as spawning grounds, nursery areas or feeding sites.

6.2.2 Marine traffic

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

6.2.3 Tourism

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

6.2.4 Marine scientific research

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

6.2.5 Area-based management tools

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

6.2.6 Other

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

6.3 Sites of an archaeological or historical nature

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

6.4 Summary of existing sociocultural environment

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

I – Members of the International Seabed Authority

China

6.2.1 "Fisheries" be deleted.

Since an exploitation contract area recommended by the Commission for approval will not include an area used as recognized sea lanes essential to international navigation, it is suggested that paragraph 6.2.3 "Tourism" be deleted.

France

Dans le cadre de **la 6ème section relative à la description de l'environnement socioéconomique**, il serait plus adapté de consacrer un sous-paragraphe à la question des câbles plutôt que de la traiter sous l'intitulé générique de « Divers » (6.2.6). Suggestion de prévoir un 6.2.6 intitulé « câbles sous-marins » et un 6.2.7 consacré aux autres utilisations du secteur couvert par le projet, notamment les autres projets d'exploration ou d'exploitation. Ce sous-paragraphe étant intégré au sous-ensemble 6.2 intitulé « utilisations actuelles », nous pourrions également envisager l'introduction d'un sous-ensemble 6.2 bis qui serait consacré aux « utilisations planifiées » et qui prendrait notamment en compte les projets de pose de câbles sous-marins ou les projets d'aires marines protégées.

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United States of America

Description of [the existing socioeconomic][other activities in the marine] environment

This section should describe the socioeconomic aspects of the project.

Deep Ocean Stewardship Initiative

- As in 4.1 above.
- While the discussion of fisheries (catch, value, fishing locations, etc.) is appropriate here, the discussion of fish abundance, spawning grounds, nursery areas and feeding sites should be included in the previous section (5.4).
- What is missing from the entire EIS is characterization of the global-scale regulating and supporting ecosystem services (carbon burial and sequestration, nutrient cycling). This is certainly an 'other use', but needs to be included in its own section as these are some of the services that will be disrupted in the mining footprint and it is critical that they be quantified. Similarly, the genetic resources present in the project area are not mentioned but merit attention in the EIS.
- This section should also consider other international agreements and whether any sites relating to cultural property or cultural heritage are known to occur within the potential area of impact. Additionally, please broaden to include findings of a paleontological nature.

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

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

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

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

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

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

7.1 Key messages

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

7.2 Description of potential impact categories

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

Key elements that need to be included are:

(a) Descriptions of impact studies carried out during exploration (e.g., component testing);

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

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

7.3 Meteorology and air quality

Provide a description of potential effects on air quality from the surface or subsurface operations.

7.3.1 Potential impacts and issues to be addressed

7.3.2 Environmental management measures to mitigate impacts

7.3.3 Residual impacts

7.4 Geological setting

Provide a description of impacts the mining operation may have on the topography of the site or its geological/geophysical composition.

7.4.1 Potential impacts and issues to be addressed

7.4.2 Environmental management measures to mitigate impacts

7.4.3 Residual impacts

7.5 Physical oceanographic setting

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

7.5.1 Potential impacts and issues to be addressed

7.5.2 Environmental management measures to mitigate impacts

7.5.3 Residual impacts

7.6 Chemical oceanographic setting

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

7.7 Seabed substrate characteristics

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

7.8 Natural hazards

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

7.9 Noise and light

Noise and light above existing levels.

7.10 Greenhouse gas emissions and climate change

Assessment of gas and chemical emissions from both natural and anthropogenic activities, as well as those affecting sea floor and water-column chemistry. Subsections should include estimated greenhouse gas emissions and a greenhouse gas emissions assessment where appropriate.

7.11 Maritime safety and interactions with shipping

Include project safety and interactions with other vessels.

7.12 Waste management

Vessel waste management, with reference to compliance with relevant conventions, legislation and principles, and methods of cleaner production and energy balance.

7.13 Cumulative impacts

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

7.13.1 Proposed operations impacts

Cumulative within the scope of the mining proposed herein.

7.13.2 Regional operation impacts

Cumulative between activities, where known in the region.

7.14 Other issues

Outline here other, more general issues, as applicable.

7.15 Summary of residual effects

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

I – Members of the International Seabed Authority

Australia

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

Commented [AUS98]: We recommend that the assessment of impacts sections (sections 7, 8 & 9) also require a description of the methods used for determining impacts, in particular the assumptions used for impact modelling.

(aa) The methods used to determine impacts (including the assumptions of any impact modelling undertaken);

Chile

7. **Evaluación del impacto sobre el entorno fisicoquímico y propuestas de mitigación**

Antes de este numeral debería incluirse otro respecto a la **Metodología de Evaluación** empleada.

Frente al término "***mitigación***" del título se sugiere reemplazarlo por "***medidas de gestión frente a los impactos identificados***", toda vez que las medidas de mitigación no son las únicas aplicables (igualmente, para otros numerales como **7.4.2, 8, 8.3.2, 11.3.1**, etc.)

Literal a) además de los efectos acumulativos deben incorporarse y abordarse los sinérgicos (igualmente para los numerales **7.13** y similares).

Germany

(7) Assessment of impacts on the physicochemical environment and proposed mitigation: Provide a detailed description and evaluation of potential impacts of the operation to components of the physical environment identified in section 4. This may need to consider effects that could happen during the construction/development (pre-commissioning), operational and decommissioning phases, as well as the potential for accidental events. The preferred approach for this template is to include for each component a description of:

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

(b) The nature and extent of any actual or potential impact, including cumulative impacts (in the mining area of the operation over the duration of the mining contract, in the contract area and the wider region from all known pressures together);

[...]

(7.2) Description of potential impact categories: Provide an overview and description of the categories of general impacts caused by the mining operation. This should introduce the major types of effect, such as habitat removal, the creation of sediment plumes, noise and light, etc. Key elements that need to be included are:

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

Italy

Annex IV Executive Summary 7.4	Provide a description of impacts the mining operation may have on the ~~topography~~ geomorphology of the site or its ~~geological/geophysical composition~~ sedimentary and geological characteristics

II – Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

United States of America

Provide a detailed description and evaluation of potential impacts of the operation to components of the physical environment identified in section 4 based on the Best Available Scientific Information and Best Available Technologies. This may need to consider effects that could happen during the construction/development (pre-commissioning), operational and decommissioning phases, as well as the potential for accidental events. The preferred approach for this template is to include for each component a description of:

Deep Ocean Stewardship Initiative

- The language of 7(b) should mirror the mitigation hierarchy, i.e., "measures that will be taken to avoid, minimize and remediate such impacts" and the language included in Section 8, which states that "it is important that these sections make clear the expected longevity of unavoidable (residual) impacts and whether or not the biological environment is expected to recover, and in what time frame, following disturbance".
- It would be useful to indicate explicitly the spatial and temporal scope of modelling. This is particularly important as many impacts may be long-lasting and cover broad areas. The spatial extent may need to be greater than that of the project (as stated in Section 3.3.1).
- This section should address the likelihood that mining impacts may exacerbate climate-induced changes to the physicochemical environment and ecosystems, and vice versa. Climate change is a cumulative impact.

7.5 Physical oceanographic setting

- Climate change should be incorporated into modelling.

7.6 Chemical oceanographic setting

- Add "(...) loading, particulate and dissolved toxic chemicals, (...)".

7.7 Seabed substrate characteristics

- Add "(...) to the expected excavation depth (...)."

7.6 to 7.12

- We recommend each of these sections also include the subsections 7.3, 7.4 and 7.5 (i.e., 1) potential impacts and issues to be addressed; 2) environmental management measures to mitigate impacts; 3) residual impacts).

7.13 Cumulative impacts

- While the inclusion of cumulative impacts is welcomed, we recommend specifying whether the applicant should account for the cumulative impact of a) several mining operations, b) activities other than mining, or c) both. In any event, the question is whether and how an applicant will get access to the relevant information.
- Cumulative effects should be understood for longer than the duration of the mining operation.

- It would be helpful here to provide examples of cumulative-effects categories and the space and timescales of interest.
- The ISA should consider conducting (or commissioning) an assessment of cumulative impacts at regional level at the planning stage.

7.14 Other issues

- Impacts on ecosystem services should be addressed here or in its own section.

The International Marine Minerals Society

Reference	Comment
Annex IV, 7.4 Geological Setting	Consider changing the term "topography" to "bathymetry" or "seafloor geomorphology" or "bathymetric features"
Annex IV, 7.7, Seabed Substrate Characteristics	Should this be part of Section 7.4?

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

Provide a detailed description and evaluation of potential impacts of the operation to the biological environment components identified in section 5. This may need to consider effects that could happen during the construction/development (precommissioning), operational and decommissioning phases, as well as the potential for accidental events. The preferred approach for this template is to include for each component a description of:

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

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

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

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

8.1 Key messages

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

8.2 Description of potential impact categories

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

8.3 Surface

Description of potential effects on the biological environment from the surface down to a depth of 200 metres, including any impacts on plankton (phytoplankton and zooplankton), nekton, surface/near-surface fish such as tuna, and seabirds and marine mammals.

8.3.1 Potential impacts and issues to be addressed

8.3.2 Environmental management measures to mitigate impacts

8.3.3 Residual impacts

8.4 Midwater

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

8.4.1 Potential impacts and issues to be addressed

8.4.2 Environmental management measures to mitigate impacts

8.4.3 Residual impacts

8.5 Benthic

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

8.5.1 Potential impacts and issues to be addressed

8.5.2 Environmental management measures to mitigate impacts

8.5.3 Residual impacts

8.6 Ecosystem/community level

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

8.6.1 Potential impacts and issues to be addressed

8.6.2 Environmental management measures to mitigate impacts

8.6.3 Residual impacts

8.7 Cumulative impacts

The nature and extent of any interactions between various impacts where they may have cumulative effects must be considered. This should include an evaluation of the spatial and temporal intensity of mining and its effects on other impacts.

8.7.1 Proposed operations impacts

Cumulative within the scope of the mining proposed herein.

8.7.2 Regional operation impacts

Cumulative between activities, where known in the region.

8.8 Summary of residual effects

A table may be a useful summary format.

I – Members of the International Seabed Authority

Australia

(aa) The methods used to determine impacts (including the assumptions of any impact modelling undertaken);

Germany

(8) Assessment of impacts on the biological environment and proposed mitigation: Provide a detailed description and evaluation of potential impacts of the operation to the biological environment components identified in section 5. This may need to consider effects that could happen during the construction/development (pre-commissioning), operational and decommissioning phases, as well as the potential for accidental events. The preferred approach for this template is to include for each component a description of:

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

(b) The nature and extent of any actual or potential impact, including cumulative impacts (in the mining area of the operation over the duration of the mining contract, in the contract area and the wider region from all known pressures together);
(b bis) The applicable environmental goals and objectives, indicators and threshold values as identified in the applicable Regional Environmental Management Plan;
[…]

(8.1bis) Description of the key sources of environmental impacts
[…]
(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 proponent's environmental management system and should reflect the proponent's environmental

policy and the translation of that policy to meet the requirements under this section and previous sections during different stages of the project life (i.e., from construction to decommissioning and closure). […]
[…]

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United States of America

Provide a detailed description and evaluation of potential impacts of the operation to the biological environment components identified in section 5 based on the Best Available Scientific Information and Best Available Technologies. This may need to consider effects that could happen during the construction/development (pre-commissioning), operational and decommissioning phases, as well as the potential for accidental events. The preferred approach for this template is to include for each component a description of:

Deep Ocean Stewardship Initiative

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

- Who will define the evaluation criteria as this will determine the need for mitigation? Currently, whether mitigation is needed or not is open to the Contractor's opinion and interpretation of impact.
- The language of 8(b) should mirror the mitigation hierarchy i.e., "measures that will be taken to avoid, minimize and remediate such impacts."
- This section should address the likelihood that mining impacts may exacerbate climate-induced changes to the physicochemical environment and ecosystems, and vice versa. Climate is a cumulative impact.

8.1 Key messages

- The "Key messages" section should provide an overview of the impacts and their mitigation, not the content covered.

8.3 Surface

- We recommend including "microbes" in the statement "including any impacts on microbes, plankton (phytoplankton and zooplankton)..."

8.4 Midwater

- We recommend including "microbes" in the statement "above the sea floor, including microbes, zooplankton, nekton, mesopelagic and bathypelagic fishes and deep-diving mammals."
- We recommend changing terminology from "biological environment" to "biology" or "biological communities".

8.5 Benthic

- Marine mammals should also be included here.
- We recommend including "microbes" in the statement "of the potential effect on benthic microbial, invertebrate and fish communities."

8.6 Ecosystem/community-level

- An important example of linkages would be the potential toxicity effects of plumes and bioavailability of toxins. We recommend including this example to give clarification.
- This section should focus on levels above the species – communities and ecosystems. Information about species-specific life history and behavior should be included in the sections above. Functions and linkages that arise when considering all the species together, e.g. primary productivity, habitat heterogeneity, food-web complexity, carbon and nutrient cycling, bentho-pelagic coupling, succession, stability, etc., should also be considered.

8.7 Cumulative impacts

- The impacts on the biological communities and ecosystem functions that may occur during the construction/development, operational and decommission phases may not be cumulative, but are more likely to interact together, which, based on multiple stressors studies, are very likely to be synergistic.
- The interacting impacts from the different factors of deep-sea mining also need to be considered among other stressors, such as climate change, which can influence responses and tolerance levels to the mining operations. Focusing only on mining impacts will not provide a reasonable estimate of impact responses and losses.
- These synergistic effects must also be considered at spatial and temporal scales for all mining operations.

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

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

(a) The nature and extent of any actual or potential impact, including cumulative impacts;
(b) Measures that will be taken to avoid, remedy or mitigate such impacts; and
(c) The unavoidable (residual) impacts that will remain.

9.1 Key messages

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

9.2 Impact identification

9.2.1 Existing uses

9.2.1.1 Fisheries

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

9.2.1.1.1 Potential impacts and issues to be addressed

9.2.1.1.2 Environmental management measures to mitigate impacts

9.2.1.1.3 Residual impacts

9.2.1.2 Marine traffic

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

9.2.1.3 Tourism

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

9.2.1.4 Marine scientific research

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

9.2.1.5 Area-based management tools

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

9.2.1.6 Other

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

9.3 Sites of an archaeological or historical nature

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

9.4 Socioeconomic and sociocultural issues

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

9.5 Summary of existing sociocultural environment

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

I – Members of the International Seabed Authority

Australia

(aa) The methods used to determine impacts (including the assumptions of any impact modelling undertaken);

France

Cette proposition est également à retranscrire à la Section 9 relative à l'évaluation des effets de l'activité d'exploitation sur l'environnement socioéconomique et les mesures d'atténuation proposées.

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United States of America

Assessment of impacts on the [socioeconomic][other activities in the marine] environment and proposed Mitigation

Deep Ocean Stewardship Initiative

- The language of 9(b) should mirror the mitigation hierarchy i.e., "measures that will be taken to avoid, minimize and remediate such impacts."
- The "Key messages" section should provide an overview of the socioeconomic impacts and their mitigation, not the content covered.
- This section could also consider whether any sites relating to cultural property or cultural heritage, as well as exploration for genetic resources, are known to occur within the potential area of impact.
- Human remains and objects of an archaeological or historic nature may not be known at the time of an EIS but may be uncovered during exploitation operations. Here, the Contractor should also address what management measures will be implemented if a site of archaeological or historical nature is discovered during operations.

10. Accidental events and natural hazards

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

For each component include:

(a) The nature and extent of any impact;

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

(c) Residual impacts

10.1 Extreme weather

For example: hurricanes/cyclones.

10.2 Natural hazards

For example: volcanic eruptions, seismic events.

10.3 Accidental events

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

I – Members of the International Seabed Authority

Russian Federation

Environmental Impact Statement (Annex IV), paragraph 10	Accidental events and natural hazard <….> This section should outline the possibility/probability of accidental events occurring, the impact they may have, the measures taken to prevent or respond to such an event and the residual impact should an event occur. For each component include: (a) The nature and extent of any impact; <….>.	It is proposed to adjust the content of this paragraph taking into account adequately assess the possibility of providing information on the nature and extent of the impact and the residual impact of the alleged accidental event before it occurs.	The question arises about the possibility of providing information on the nature and extent of the impact and the residual impact of the alleged accidental event before it occurs.

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 should reflect the proponent's environmental policy and the translation of that policy to meet the requirements of this section and previous sections during different stages of the project life (i.e., from construction to decommissioning and closure).
The Environmental Management and Monitoring Plan is a separate report from the Environmental Impact Statement, but this could be a useful opportunity to highlight some of the key issues from the Statement that will be addressed in the full Environmental Management and Monitoring Plan. Information detailed in this section should include the headings set out below.

11.1 Organizational structure and responsibilities

This section should show how the Contractor's environmental team fits into its overall organizational structure. Responsibilities of key personnel should be outlined.

11.2 Environmental management system

Although a full environmental management system may not exist at the time the Environmental Impact Statement is submitted, outline the standards that will be considered and/or aligned with when developing the system for the project.

11.3 Environmental Management and Monitoring Plan

An Environmental Management and Monitoring Plan will be submitted as a separate document for the Authority's approval prior to the commencement of mining operations. This section should provide an overview of what the Plan would entail. This section should include, at a minimum, the headings set out below.

11.3.1 Mitigation and management

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

11.3.2 Monitoring plan

Summarize the monitoring plan approach and programme.

11.3.2.1 Approach

11.3.2.2 Programme

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

11.3.3 Closure Plan

A Closure Plan will be submitted as a separate document for the Authority's approval. However, this section should provide an overview of what the Closure Plan will entail, including decommissioning, continued monitoring and rehabilitation measures, if applicable.

11.4 Reporting

11.4.1 Monitoring

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

11.4.2 Incident reporting

Outline how Incidents will be reported and managed.

I – Members of the International Seabed Authority

Australia

11.2 Environmental management system

Although a full environmental management system may not exist at the time the Environmental Impact Statement is submitted, outline the standards that will be considered and/or aligned with when developing the system for the project.

11.3 Environmental Management and Monitoring Plan

An Environmental Management and Monitoring Plan will be submitted as a separate document for the Authority's approval prior to the commencement of mining operations. This section should provide an overview of what the Plan would entail. This section should include, at a minimum, the headings set out below.

Commented [AUS99]: Australia recommends reinserting the definition of 'environmental management system'. This term is currently undefined in this version of the regulations. However, we note that the previous version of the draft Environmental Regulations (before they were merged) included a definition of the term and a draft regulation (Regulation 28) which outlined the requirements for an Environmental Management System.

The environmental management system was defined as, "that part of the overall management system applied by a Contractor that includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining environmental policy, goals and environmental performance'

Chile

11. **Gestión ambiental, vigilancia y presentación de informes**

Al hacer referencia a la política ambiental de los contratistas, es fundamental que los mismos implementen y sigan un sistema de gestión ambiental. De lo contrario, dicha política será solo una declaración de intereses, sin contar con una aplicabilidad real y efectiva.

Si bien el Plan de Gestión y Vigilancia Ambiental constituye en sí un informe separado, es importante destacar que su elaboración se basa en la declaración de impacto ambiental. La gestión y vigilancia está directamente relacionada con los impactos ambientales identificados.

11.2 **Sistema de gestión ambiental**

Debiera ser un requisito. Al no haberse implementado a cabalidad al momento de presentarse la declaración de impacto ambiental, si se requiere la planificación de su adopción e implementación.

Por tratarse de la explotación de recursos naturales no renovables que corresponden al **Patrimonio Común de la Humanidad**, lo esperable es que se realice considerando los **mejores estándares ambientales** posibles. Una de las mejores formas de propiciar esto es exigiendo la aplicación de la mejora continua mediante un sistema de gestión ambiental.

Germany

(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 proponent's environmental management system and should reflect the proponent's environmental policy and the translation of that policy to meet the requirements under this section and previous sections during different stages of the project life (i.e., from construction to decommissioning and closure). […]

[…]

(11.2) Environmental management system: ~~Although a~~A full environmental management system ~~may~~ shall ~~not~~ exist at the time the Environmental Impact Statement is submitted. The proponent has to demonstrate that it will be capable of managing all relevant environmental questions.

[…]

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Deep Ocean Stewardship Initiative

- In addition to reflecting the proponent's environmental policy, this section should demonstrate compatibility with the Authority's strategic overarching environmental goals and objectives for the Area and with the environmental goals and objectives of the REMP.
- The role of independent assessment in the monitoring process itself, not just the Plan, is also important. We encourage the Authority to consider the transparency of this process in environments so remote from human interactions. Such an approach would support the integrity of the organization.

12. Product stewardship

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

13. Consultation

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

13.1 Consultation methods

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

13.2 Stakeholders

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

13.3 Public consultation and disclosure

Provide a description of the goals and consultation workshops/meetings that occurred prior to the preparation of the report. Include a description of key concerns and comments identified by stakeholders and whether or not the applicant intends to address these concerns, and, if not, describe the reasons for that decision.

13.4 Continuing consultation and disclosure

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

I – Members of the International Seabed Authority

Australia

13.2 Stakeholders

List any relevant stakeholders that have been consulted, [~~and~~] explain the process by which stakeholders were identified **and summarise any matters raised by stakeholders and how these will be addressed**.

Commented [AUS100]: Australia recommends amendments to this provision to increase transparency in relation to stakeholder consultation.

France

Enfin, dans la Section 13 relative à la procédure de consultations (Annexe IV), toute consultation entreprise avec un opérateur de câbles devrait faire l'objet d'un rapport sur la façon dont les préoccupations respectives du contractant et de l'opérateur qui dispose d'un câble ou planifie d'en poser un dans le secteur visé par la plan de travail ont été prises en compte/résolues.

Germany

(13) Consultation: Describe the nature and extent of consultation(s) that have taken place with parties identified who have existing interests or future interests in the proposed project area and with other relevant stakeholders based on the applicable guidelines.
[…]"

- In relation to a new **Annex [IVbis] on "Regional Environmental Management Plans"**, please see the explanations in the section "main issues".
- In relation to a new **Annex [IVter] on "Test Mining"**, please see the explanations in the section "main issues".

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Deep Ocean Stewardship Initiative

13. Consultation

- Are any Standards and/or Guidelines provided as to how a Contractor should conduct a Stakeholder consultation?

13.3 Public consultation and disclosure

- Comment coding for consultations is highly subjective, thus we recommend consideration be given to the independent nature of consultation and identifying the

"key concerns". To allow for transparency, comments given by Stakeholders should be available as data to download publicly.

14. Glossary and abbreviations

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

15. Study team

Outline the people involved in carrying out the environmental impact assessment studies and in writing the Environmental Impact Statement. If independent scientists or other experts were involved in any of the work, they should be listed. The names, occupational qualifications and their role in the generation of the Environmental Impact Statement of such people should also be included.

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Deep Ocean Stewardship Initiative

For preparers of the EIS, it will be important to clearly identify their activities that could reflect potential conflicts of interest.

16. References

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

17. Appendices

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

Annex VII

Environmental Management and Monitoring Plan

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

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

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

2. An Environmental Management and Monitoring Plan shall contain:

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

(b) A description of the area likely to be affected by the proposed activities;

(c) The environmental objectives and standards to be met;

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

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

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

(g) A description of the planned monitoring programme and the overall approach, standards, protocols, methodologies, procedures and performance assessment of the Environmental Management and Monitoring Plan, including the necessary risk assessment and management techniques, including adaptive management techniques (process, procedure, response), if appropriate, needed to achieve the desired outcomes;

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

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

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

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

(l) Details of the quality control and management standards, including the frequency of the review of the performance of the Environmental Management and Monitoring Plan;

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

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

(o) Details of Mining Discharges, including a waste assessment and prevention audit;

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

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

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

(s) Details of reporting requirements and timing.

I – Members of the International Seabed Authority

Australia

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

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

(g) A description of the planned monitoring programme and the overall approach, standards, protocols, methodologies, procedures and performance assessment of the Environmental Management and Monitoring Plan, including the necessary risk assessment and management techniques, including adaptive management techniques (process, procedure, response), if appropriate, needed to achieve the desired outcomes;

Commented [AUS102]: This provision provides that the Environmental Management and Monitoring Plan shall contain an assessment of the potential Environmental effects of the proposed activities on the Marine Environment and any significant changes likely to result. We consider there needs to be better linkages between these elements, for example setting out what are the impacts and risks, and what are the proposed control and mitigation measures, how will this reduce the risk to the environment, and whether the residual risk is acceptable.

A prerequisite to determine the potential environmental effects of the proposed Exploitation activities on the marine environment is the establishment of an environmental baseline against which to assess the impacts of mining on the marine environment. Consideration should be given as to whether this requirement has been met in the draft regulations.

(o) Details of Mining Discharges, including a waste assessment and prevention audit;

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

Commented [AUS103]: This provision states that the plan will contain details of Mining Discharges, including a waste assessment and prevention audit. Further information is required on how these discharges will be managed to an acceptable level, and what incentives the contractor will have to continually improve these.

Canada

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

Chile

ANEXO VII
Plan de gestión y vigilancia ambiental

Párrafo 2

El plan debe también incluir los parámetros y variables específicas a monitorear, separándolos según matriz ambiental, como también el presupuesto y financiamiento de las actividades propuestas.

Numeral 2 letra o)

Es preciso especificar con mayor detalle aspectos a considerar en la evaluación de los desechos que se pretenden verter. Para lo anterior se deberían emplear las guías del **Anexo 2 del Protocolo del Convenio de Londres** o similares.

Chile considera que es necesario incluir mecanismos de revisión, control, actualización y mejoramiento del plan.

China

38. Annex VII

Paragraph 1 (b) stipulates that environmental management and monitoring plans shall be verified by the report of independent competent persons. The appointment of "independent competent persons" and the effect of their verification and report are not clear and should be further clarified.

France

Au **paragraphe 2, les alinéas h, j et l** soulèvent la question de l'entité responsable de définir la fréquence du suivi et les normes et indicateurs de performance environnementale. S'agit-il du contractant ? Ou cela fait-il partie des normes environnementales adoptées par le Conseil (articles 45 et 94) ? Cet aspect doit être spécifié.

Germany

- With regard to **Annex VII**, we have the following suggestions:

Annex VII: Environmental Management and Monitoring Plan
"(1) The Environmental Management and Monitoring Plan prepared under these Regulations and this annex VII shall be: (a) Prepared in accordance with the relevant Regulations and Standards, taking into account applicable ~~and~~ Guidelines, on the basis of Best Environmental Practice, Best Available Scientific Evidence, and Best Available Information; (b) Prepared in ~~plain~~ clear language and in an official language of the Authority […]. […].

(2) An Environmental Management and Monitoring Plan shall contain:

[…]

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

[…]."

Italy

Annex VII 1 (n)	Compensatory measures are not addressed elsewhere in the document.	Details of any ~~compensatory~~ measures agreed or proposed to achieve the agreed closure objectives; and

II – Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

United States of America

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

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

(b) Verified by the report of independent competent persons; and.

(c) Based on the Best Available Scientific Information

2. An Environmental Management and Monitoring Plan shall contain:

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

(b) A description of the area likely to be affected by the proposed activities;

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

Commented [A75]: Baseline data is needed to properly assess any potential environmental effects and will be critical to assess any significant change as a result of mining activities. While this could come out of the EIS in some cases, it should be restated here.

(c) The environmental objectives and standards to be met;

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

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

Deep Ocean Stewardship Initiative

Annex VII - Environmental Management and Monitoring Plan

- It would help reviewers to understand the full process around the Authority's plans for developing the environmental objectives, targets and metrics, as well as expected standards. We are hopeful that a process with full Stakeholder engagement will define aspects such as significant changes, harmful effects, etc. Similarly, standards for performance and indicators (triggers and thresholds) do not currently exist.

1b: "verified by the report of independent competent persons". A reference should be provided to a document elaborating on the definition of "competent persons" and a document on such a report structure.

2c: "The environmental goals, and targets to be met,"; We recommend to explain the terms "environmental goal" and "environmental target" in "Use of Terms and Scope". In addition, we recommend rewording to "The environmental goals, and targets to be met, consistent with the regional environmental management plan" We note that such goals, objectives and targets are not yet defined.

2d: The roles and responsibilities of personnel should be outlined in the EMMP. This section could outline a chain of command and include the roles and responsibilities of personnel in relation to implementation, management, and review to accomplish the following:

- Provide names, positions, and contact information of personnel involved with ensuring the proper implementation of the EMMP (note if positions unassigned).
- Discuss the roles and responsibilities of the proponent, Contractors, and Subcontractors identified and the interrelationships between these entities. Particularly important in this is to demonstrate that environmental considerations are included in decision making at all levels within the company.
- Provide organizational flowcharts or other diagrams of key personnel.

2d and 2e: We recommend stringent review by independent experts. The Contractor must demonstrate capacity in place for monitoring the required parameters.

2d or 2k: It is common in EMMPs to include an environmental commitments section for the proponent to outline their specific environmental commitments (which become a key management tool during implementation of the project). This could include:

- Adherence to all outcomes and obligations of the EMMP
- Proposed mitigation measures and monitoring activities against all residual impacts, unexpected releases, and anything that compromises worker safety
- The nature of the work to be undertaken
- The objectives to be met
- Who is responsible for the environmental commitments?
- Who will undertake the operation?
- Who is responsible for monitoring and recording that the EMMP environmental commitments are properly fulfilled?
- Who is responsible for reporting that the EMMP environmental commitments are met?

2e: We recommend including an assessment of the potential longevity of environmental effects.

2f: Suggest that this should reflect the mitigation hierarchy so that the mitigation measures to avoid, minimize and remediate the harm from environmental effects are clear. Also emphasize the importance of clarifying any potential residual impacts.

2j: Refer to the Authority's Guidelines so that the Standards and indicators (trigger and threshold points) used reflect those within the Guidelines.

2g: Suggest including the financial implications, and adding: "…adaptive management techniques (process, procedure, timing, monitoring of response)…"

2g: This should instruct, in detail, on how Contractors should measure their periodic performance for the Plan (DR 50). The performance assessment is required to contain the assessment of three compliance obligations (1. monitoring environmental effects, 2. implementing measures, 3. good industrial practices; DR 49, 50). None of these aspects is explained in this clause (2g).

2g: It may be useful to include a reference to the Emergency Response and Contingency Plan. Specifically listing the actions that are covered under "normal operations" (i.e. under the EMMP) and "emergency actions" (i.e. under the Emergency and Response Contingency Plan). This may include the requirement for a contingency plan under the EMMP.

2g: The DRs 49 and 50 and this Annex (VII(2g)) do not clarify whether the ISA seeks for compliance-oriented performance (standards- or process-focused) or environmental effects-oriented performance (result-focused). It would be helpful for Contractors (and independent competent persons to verify the assessments) that suggests the ISA's priority for the performance assessments. This will relate to the review (DR 56) of the performance assessments or Environmental Performance Guarantee (DR 27).

2l: The review should establish procedures for the periodic review of the EMMP to ensure that the plan's contents are correct and that it is being properly implemented. It may be important to include the opportunity for independent review of how the Contractor is meeting its obligations. These reviews will ensure that—should conditions arise that alter the plan's contents or requirements—the EMMP remains updated to reflect these changes. The information provided in this section should, at a minimum, accomplish the following:

- Demonstrate how the proponent intends to maintain the EMMP as a "live" document, capable of modification during the project's life cycle and as circumstances dictate.
- Indicate who will regularly review, update, and develop the EMMP as the mining project progresses.
- Outline procedures for the periodic review of the EMMP to ensure that its contents are correct and that it is being properly implemented.

2l: A new section is required that details how the Environmental Performance of the proponent will be audited. This may require details on who will audit, how frequently, and how corrective actions will be implemented and actions for non-compliance. This is distinct from the point above and the current text (which refers to assessment by the proponent) in being carried out by an independent third party.

Institute for Advanced Sustainable Studies

101. We recommend a new insertion in Annex VII, namely paragraph 1(a bis), which states: "Prepared in conformity with the application regional environmental management plan". Similarly, paragraph 2(c) should be expanded as follows: "The environmental objectives and standards to be met, with particular attention being paid towards conforming to the applicable regional environmental management plan".

III – Stakeholders

Nauru Ocean Resources Inc.

Annex VII 2(e) and 2(f)

NORI notes that typically an Environmental Management and Monitoring Plan would not include an 'assessment' of the potential environmental effects or their significance. An assessment involves significant work which has already been completed as part of the EIA and is documented in the EIS. We suggest that it would be more appropriate for the EMMP to include a 'summary' of potential Environmental Effects and their significance. As such, NORI recommends that the following changes are made to Annex VII 2(e) and 2(f):

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

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

Annex VIII

Closure Plan

1. The Closure Plan shall be prepared and implemented in accordance with the Guidelines and the relevant regional environmental management plan and shall include the following information:

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

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

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

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

(e) Details of the closure implementation and timetable, including descriptions of the arrangements for the temporary suspension of mining activities or for permanent closure decommissioning arrangements for vessels, Installations, plant and equipment (where applicable);

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

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

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

(i) Details of the management measures to Mitigate the residual Environmental Effects;

(j) Details of any restoration objectives and activities, where applicable;

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

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

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

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

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

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

I – Members of the International Seabed Authority

Australia

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

Commented [AUS104]: This provision states that the Closure Plan shall include, amongst other things, details of the closure implementation and timetable, including descriptions of the decommissioning arrangements for vessels, plants and equipment. We consider the obligation for contractors to remove all equipment and remediate the environment should be explicitly included here.

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

Chile

Literal a)

Los objetivos generales de los planes de cierre deberían ser estandarizados por la Autoridad. No debe quedar a criterio de cada contratista lo que se espera lograr con el plan de cierre.

Ambientalmente deben apuntar a dejar el lugar en las condiciones más similares posibles a las existentes antes de la explotación, aplicando para ello medidas de restauración, reparación y rehabilitación.

Literal j)

La restauración debe hacerse siempre, ya que en todo escenario proceden dichas medidas.

Es necesario vincular, según corresponda, los planes de cierre con el fondo fiduciario de responsabilidad ambiental, especialmente el **literal e)** del **artículo 53**.

II – Observers to the International Seabed Authority as referred to in rule 82 of the Rules of Procedure of the Assembly

Deep Ocean Stewardship Initiative

1g: In addition to details on residual Environmental Effects within an updated environmental impact assessment, the data relating to residual environmental impacts should be publically available.

1i and 1j: Details on any anticipated residual impacts even after restoration activities/mitigation measures need to be provided. A timetable for how long the mitigation measures and restoration activities are anticipated to take would also be useful to understand the practicalities of mitigating residual environmental effects.

1k: Information should be given on how data will be archived and made available post-closure.

1o: We are pleased to see that Stakeholders are expected to be consulted in respect to the Closure Plan. This will be an important consultation component to ensure any residual impacts are adequately compensated for and that impacts post-exploitation are adequately monitored. We acknowledge that the level of detail in a Closure Plan will differ between a temporary suspension and final mine closure, but some Guidance should be developed to set expectations for Stakeholder Consultations. This Guidance should then be referred to within Annex VIII(1)(o).