

Developing a Regulatory Framework for Mineral Exploitation in the Area

Report to Members of the Authority and all stakeholders

This Report contains a draft framework for the regulation of exploitation activities in the Area, as requested by the Council. The Report is addressed to all stakeholders and seeks comment on the draft framework, which draws on the 2014 Stakeholder Survey.



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Section 1: Executive summary

The purpose of this Report of the Legal and Technical Commission (the Commission) is to respond to the Council's decision (ISBA/20/C/31, paragraph 3) by which the Council *"requested the Commission to continue its work on the regulations governing exploitation as a matter of priority and to make available to all members of the Authority and all stakeholders a draft framework for the regulation of exploitation as soon as possible after the February 2015 meeting"*.

This Report attempts to demonstrate the size (both depth and breadth) of the task in formulating rules, regulations and procedures for exploitation. It is also a statement of progress to date and indicates the immediate next steps and actions.

The Report contains the following sections:

- Section 1: Executive summary
- Section 2: Draft framework for the Exploitation Regulations¹
- Section 3: Summary of the Commission's response to Stakeholder Survey submissions
- Section 4: Summary of high level issues
- Section 5: Draft action plan for way forward to mid-2016.

The Report was developed and finalised for immediate circulation to Members of the Authority and all stakeholders following the February Session of the Commission, which was held from 16 to 27 February 2015. Stakeholder groups follow the same broad groupings that responded to the Survey and as reported by the Commission to Council in 2014 and are considered to include: contractors, international organizations, non-government organizations, scientific institutions and universities, private entities, and individuals.

Responses to this Report from Members of the Authority and all stakeholders are invited by mid-May so that the Secretariat can prepare an update for the session of the Commission in July 2015.

The Commission will, in its Chair's Report to Council in July 2015: (i) provide a summary of progress and next actions on the development of the Exploitation Regulations and (ii) include a latest version of the Draft framework for the Exploitation Regulations in an annex to the Chair's Report.

¹ Disclaimer: This draft regulatory framework should not to be seen as "draft regulations". The framework is work in progress by the Commission as it moves incrementally and in a consultative manner with Members of the Authority and all stakeholders towards the regulations themselves.

Section 1: Executive summary

Section 2 of this Report reflects the draft framework for the Exploitation Regulations. It currently contains 10 parts and 2 annexes. Specifically not included at this time are 4 areas: (i) the financial and payment terms mechanism; (ii) a mining inspectorate; (iii) revenue management by the Authority and (iv) the Enterprise. The Commission will provide further details of possible financial and payment mechanisms to Council in July following further consideration.² No further work on the remaining 3 items is proposed at this time. Additionally, the two annexes to the draft framework, addressing application procedure and standard contract clauses, reflect 5 further issues that have been identified for further work. These are: (i) dealings; (ii) annual reports; (iii) insurance; (iv) suspension and termination of contracts and penalties and (v) revision.

Section 3 of this Report is a summary of the Commission's response to the Stakeholder Survey submissions. It further encourages responses from Members of the Authority and all stakeholders to this Report by mid-May in order to further enrich the interactive dialogue that is key to the successful development of the exploitation regulations.

Section 4 of this Report contains a brief commentary on 13 high level issues identified in the responses to the Stakeholder Survey and the work of the Commission to date. These issues must be addressed in the process of developing and finalising the exploitation regulations. Once again feedback is being sought including: (i) on high level issues that may have been omitted; (ii) on the brief commentary provided in regard to each of the issues, and (iii) suggestions on the way these issues may be addressed in the development of the regulatory framework.

Section 5 of this Report comprises a Draft action plan. The plan at this time is considered appropriate to continue the further development of the regulations in a timely manner. It is anticipated it will develop over time. The action plan is drawn directly from the draft framework and actions have been prioritised according to when actions need to be initiated. It is premature to consider that actions will be completed at this stage, as many will be initiated and ongoing for some time.

The Commission recognises the importance of an open, transparent and inclusive process in developing the exploitation framework and welcomes further stakeholder feedback.

² It is intended that a discussion paper relating to the financial mechanism be circulated before end March 2015 to all stakeholders for comment.

Section 2: Draft framework for the Exploitation Regulations

This Section 2 provides an outline of a suggested structure for future exploitation regulations together with a commentary against each component element of the regulatory framework and recommended actions.

The suggested legal framework is similar to that under the current exploration regime, that is, a uniform set of headline regulations and a standardised contract.³ The aim is to develop a legal framework that is simple with clear objectives and endorses established principles and practice where applicable.

As noted in the Executive summary, there are four areas of the regulatory framework that are not addressed in this Section 2, being:

1. The payment mechanism: this is under separate discussion and an update on the financial regime will be presented at the Authority's Annual Session in July 2015. However, a separate discussion paper on the development of a payment mechanism will be issued by the Secretariat in advance of the Session;
2. The development and resourcing of a mining inspectorate within the Secretariat function. It is recommended that the administrative and enforcement functions of a "typical" mining regulator, environmental management agency and perhaps maritime security regime are benchmarked in due course;
3. Revenue management by the Authority, that is the allocation of monies received by the Authority from production proceeds; and
4. The operation and effective participation of the Enterprise.

It is not the intention of the Commission to undertake further work in respect of 2, 3 and 4 above at this time.

³ See Article 153(3) and Annex III Article 3(5) of the Convention requiring an approved plan of work to be in the form of a contract.

Glossary of abbreviations

| | |
|-------|--|
| APEIs | Areas of particular environmental interest |
| BEP | Best environmental practice |
| DSM | Deep seabed mining |
| EIA | Environmental impact assessment |
| EIS | Environmental impact statement |
| EITI | Extractive Industries Transparency Initiative |
| EMP | Environmental management plan |
| EMS | Environmental management system |
| IRZ | Impact reference zone(s) |
| PRZ | Preservation reference zone(s) |
| RRPs | Rules, regulations and procedures (of the Authority) |
| SEIA | Strategic environmental impact assessment |
| SEMP | Strategic environmental management plan |

Suggested structure for Exploitation Regulations

Title

Preamble

- Objectives & overarching principles / purpose

Part I – Introduction

- Use of terms and scope

Part II – Applications for approval of plans of work for exploitation in the form of contracts

- *General provisions*
- *Content of applications*
 - Form of applications
 - Certificate of sponsorship
 - Financial & technical capabilities
 - Previous contracts with the Authority
 - Undertakings
 - Applications for approval of plans of work with respect to a reserved area
 - Equity interest in a joint venture arrangement
 - Data and information to be submitted for approval of the plan of work for exploitation
 - Feasibility study
 - Environmental impact statement
 - Environmental management plan
 - Social impact assessment and action plan
 - Financing plan

- Closure plan
- Size and location of exploitation area covered by the plan of work
- *Fees*
 - Fee for applications
- *Processing of applications*
 - Receipt, acknowledgement and safe custody of applications
 - Public review of the Environmental impact statement and Environmental management plan [and Social impact assessment and Closure plan]
 - Consideration by the Legal and Technical Commission
 - Consideration and approval of plans of work for exploitation by the Council
 - Independent technical expert working group(s) / sub-committees

Part III – Contracts for exploitation

- The contract
- Rights of the contractor
- Obligations of the Authority
- Legal title to minerals
- Duration of contracts / renewal
- Performance requirements
- Conservation of the natural resources of the Area
- Use of sub-contractors
- Vessels operating in the Area
- Protection of submarine cables and pipelines
- Health and safety

- Training
- Periodic review of the implementation of the plan of work for exploitation
- Termination of sponsorship
- Responsibility and liability

Part IV – Protection and preservation of the marine environment

- Protection and preservation of the marine environment
- Environmental management
- Emergency orders
- Strategic environmental management plan
- Rights of coastal States
- Environmental bonds and performance guarantees
- Restoration and rehabilitation of the marine environment
- Adaptive management approach
- Seabed sustainability fund
- Environmental liability trust fund
- Human remains and objects and sites of an archaeological or historical nature

Part V – Confidentiality

- Confidentiality of data and information
- Procedures to ensure confidentiality

Part VI – General Procedures

- Notice and general procedures
- Recommendations for the guidance of contractors
- Duty to co-operate

Part VII – Enforcement, offences and penalties

- Inspection
- Offences & penalties

Part VIII – Settlement of disputes

- Disputes

Part IX – Other mineral resource categories

Part X – Review

Annexes to exploitation regulations

Annex I – Application for approval of a plan of work for exploitation to obtain a contract

Annex II – Standard clauses for exploitation contract plus schedules

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
|---|-------------------|--------------------------------|--|
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Part I Introduction

| | | | |
|-------------------------------|--|--|--|
| Use of Terms and scope | Definitions applicable to the exploitation regime. | The Exploration Regulations ⁵ contain relatively few terms and definitions. It is likely that the Exploitation Regulations will include more comprehensive definitions to aid interpretation. These will include those already presented in the Exploration Regulations, save as amended to reflect current practice. | This section will evolve as the regulatory framework evolves. Definitions should reflect internationally agreed and accepted definitions where possible. |
|-------------------------------|--|--|--|

Part II Applications for approval of plans of work for exploitation in the form of contracts

| | | | |
|-----------------------------|---|--|---|
| General | Defines the entities that may apply for a plan of work for exploitation. | <ul style="list-style-type: none"> Use wording identical to that contained in the Exploration Regulations. | <ul style="list-style-type: none"> Not applicable. |
| Form of applications | Defines requirement for a plan of work in a form to be prescribed in Annex I. | <ul style="list-style-type: none"> Wording in Exploration Regulations remains relevant, however:- Should a “plan of work for exploitation” cover multiple exploitation areas, within say the area covered under an existing contract for exploration? Each distinct area of exploitation may have different physical characteristics and environmental conditions. Options available to the Authority: (1) to request separate plans of work for exploitation where there are “material” differences between “exploitation areas” and / or (2) to request separate documents (Feasibility study, Environmental impact statement (EIS) and Environmental management plan (EMP)) for each exploitation area (as ultimately defined). | <ul style="list-style-type: none"> <i>Guidelines for the Preparation of a Plan of Work for Exploitation</i> need drafting, including a standard application form. Future development / licensing of an online application management system. Thought to be given to “new ways of doing business” as highlighted by the |

⁴ Description corresponds to that contained in the Exploration Regulations, save for any new, proposed regulatory provision.

⁵ Refers to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (PN Exploration Regulations), ISBA/19/C/17, 22 July 2013.

| Draft regulation description⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
|---|---|---|--|
| | | | Commission in the context of exploration and its impact(s) on exploitation applications. ⁶ |
| Certificate of sponsorship | Defines the requirement for a certificate of sponsorship. | <ul style="list-style-type: none"> • Use wording identical to that contained in the Exploration Regulations. | <ul style="list-style-type: none"> • Not applicable. |
| Financial and technical capabilities | A key provision for the delivery of due diligence information about an applicant. | <ul style="list-style-type: none"> • Much of the wording reflected in the Exploration Regulation can be retained. • However, a greater level of detail will be required to evaluate “financial capability” and “technical capability” in connection with the delivery of a plan of work for exploitation, including the capability to deliver approved development and production requirements and the delivery of EMP obligations. • Evaluation criteria needed for the Commissions’ assessment procedures. • To consider how this regulation is to be applied uniformly across all contractor entities. | <ul style="list-style-type: none"> • Further best practice to be developed from national regimes and suggestions in the Stakeholder Survey. • <i>Guidelines for the Preparation and Evaluation of Information relating to Financial capability and Technical capability</i> to be drafted. |
| Previous contracts with the Authority | Content of Exploration Regulation can be retained. | <ul style="list-style-type: none"> • Details of existing contract(s) for exploration is important in establishing a “preference and a priority” in an applicant’s plan of work for exploitation. • Any assessment process to consider that deliverables and obligations under a contract(s) for exploration have been observed. | <ul style="list-style-type: none"> • Not applicable. |

⁶ See *Summary Report of the Chair of the Legal and Technical Commission on the work of the Commission during the twentieth session of the International Seabed Authority*, ISBA/20/C/20, 16 July 2014 at para 31.

| Draft regulation description⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
|---|--|--|--|
| Undertakings | Specific undertakings contained in Annex III, Article 4(6) of the Convention. ⁷ | <ul style="list-style-type: none"> • Use wording identical to that contained in the Exploration Regulation. However, this maybe an opportunity to modify or clarify undertakings fundamental to delivery of plan of work / contractual obligations? • Could be used to include specific and fundamental contract terms, for example in respect of unfair economic practices anticipated by Annex, Section 6(1)(b) of the Agreement⁸, including disclosure of anti-competitive practices and the obligation to pay fees and royalties etc. | <ul style="list-style-type: none"> • Council could consider incorporating additional undertakings particularly in connection with uneconomic practices. • A technical working paper requires preparation by an expert familiar with the international trade issues raised by Annex, Section 6(1)(b) of the Agreement and specific RRP's drafted. |
| Applications for approval of plans of work with respect to a reserved area | Wording in the Exploration Regulations <i>appears</i> to suffice. | <ul style="list-style-type: none"> • To consider wording in the light of the timing and operationalization of the Enterprise. | <ul style="list-style-type: none"> • Not applicable (at this stage). |
| Equity interest in a joint venture arrangement | Wording in the Exploration Regulations <i>appears</i> to suffice. | <ul style="list-style-type: none"> • Again, to consider wording in the light of the timing and operationalization of the Enterprise. | <ul style="list-style-type: none"> • <i>Action plan for operationalization of the Enterprise</i> to be developed. |
| Data and information to be submitted for | This draft regulation should outline the documents, information | <ul style="list-style-type: none"> • Documents that would typically⁹ be supplied in support of a plan of work for exploitation could include: | <ul style="list-style-type: none"> • See <i>Guidelines for the Preparation of a Plan of Work for Exploitation</i> above. |

⁷ United Nations Convention on the Law of the Sea.

⁸ Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982.

⁹ "Typically" refers to those documents usually supplied under a land-based mining regime. See for example, *Model Mine Development Agreement*, International Bar Association (2011).

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
|--|--|--|--|
| approval of the plan of work for exploitation | and other data required for an application. | <ul style="list-style-type: none"> i. Feasibility study (or report); ii. Environmental impact statement (EIS); iii. Environmental management plan (EMP); iv. Social impact assessment / statement and action plan (this may be integrated into the EIS above); v. Financing plan; vi. Closure plan; vii. Training plan / programme; viii. [Emergency response and procedures plan: although not normally a separate document as it would be reflected elsewhere, given the concept of “emergency orders” this could be provided as a separate document]; ix. [Health, safety and maritime security plan: again this can be integrated into the EIS]. <ul style="list-style-type: none"> • See also “Form of applications” above concerning separate documents or separate plans of work. | <ul style="list-style-type: none"> • See also individual document draft regulations following. |
| Feasibility study | Content and structure to be defined for exploitation activities. | <ul style="list-style-type: none"> • Content to be adequate to assess commercial viability of proposed exploitation activities by exploitation area. • To be prepared in accordance with good mining industry practice and based on sound engineering and economic principles and accompanied by a report of an independent expert(s), including mining engineer. • As part of the application process, alternative development or production plans may be requested to ensure the optimization (including timing) of proceeds of commercial production. | <ul style="list-style-type: none"> • <i>Guidelines for the Preparation and Evaluation (criteria) of a Feasibility study</i> to be drafted. • Have any “blueprint” feasibility studies been developed for DSM activities that can be adopted by the Authority? (To ensure consistency and comparability in applications). |

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| Environmental impact statement (EIS) | Content of EIS to be further defined / finalised and be resource-category specific. ¹⁰ | <ul style="list-style-type: none"> • An EIS must be: <ul style="list-style-type: none"> i. Based on the Environmental impact assessment (EIA) and on “sound engineering and economic principles” and good mining industry practice and verified by an independent environmental consulting firm. ii. Prepared in a language to facilitate review by interested parties plus a non-technical summary. iii. Establish baseline of environmental conditions (a key deliverable under the Exploration Regulations). iv. An assessment of project-related significant effects and impacts, including cumulative impacts. • A draft EIS template can be found in ISA Technical Study No: 10¹¹ but requires further development and finalisation. • The EIA / EIS should endorse an inter-disciplinary approach. • The Stakeholder Survey highlighted a number of standards and resources for EIA / EIS preparation to be taken account of in developing a model EIS.¹² • The concept of an “Environmental Impact Area” may need to be developed to cover areas beyond the exploitation area(s), horizontally and vertically (and cumulative impacts) where significant impacts may occur. | <ul style="list-style-type: none"> • Draft EIS template in Technical Study No.10 to be reviewed and updated. • <i>Guidelines for the Preparation and Evaluation of an Environmental Impact Statement</i> to be drafted.¹³ Should include simple rating criteria. Needs to be resource-category specific. • It is recommended that the above be undertaken by an expert and a draft template and guidelines circulated for comment by interested parties. |

¹⁰ As knowledge is improved, a more structured process of screening and scoping an EIS can evolve.

¹¹ *Environmental Management Needs for Exploration and Exploitation of Deep Sea Minerals*, ISA Technical Study No. 10 (2012) at 17.

¹² For example, Commission for Environmental Assessment *Biodiversity in EIA & SEA Background Document to CBD Decision VIII/28: Voluntary Guidelines on Biodiversity-Inclusive Assessment* April 2006; UNEP *Environmental Impact Assessment and Strategic Environmental Assessment: Towards an Integrated Approach* 2004; EIS Solwara 1 Project Nautilus Minerals Niugini Ltd.

¹³ Simple set of criteria for rating EISs could be helpful. See for example, U.S. Environmental Protection Agency, *Environmental Impact Assessment Rating System Criteria*.

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
|--|---|---|---|
| Environmental management plan (EMP) | Structure and content of EMP to be drafted / defined. | <ul style="list-style-type: none"> • An EMP must be / include: <ol style="list-style-type: none"> i. Based on the EIS and on “sound engineering and economic principles” and good mining industry practice (including IFC Performance Standards 1 and 6¹⁴ and other relevant internationally recognized standards¹⁵) and verified by an independent environmental consulting firm. ii. Prepared in a language to facilitate review by interested parties. iii. Methodologies to be employed, sampling and archiving, location of monitoring stations, measurable criteria and threshold indicators. iv. Should reflect parameters for and functionality of Preservation reference zones (PRZs) and Impact reference zones (IRZs). v. Measures / plans for monitoring, management, conservation, remediation, restoration / rehabilitation¹⁶ and control including those to avoid, minimise, mitigate, rehabilitate and offset, where appropriate, impacts on biological diversity within the impacted area and plans to prevent, minimise, mitigate impacts to water column. • EMP to be supported by an approved environmental management system (see “Environmental management” below). • Subject to inspection regime and frequent (say, every 2 years?) independent audit. • Preparation (and delivery) to reflect Best environmental practice (BEP) and application of the precautionary approach. • Any conditions attaching to EMP approval to be outcomes based, measurable, clear, reasonable and enforceable. • See also Strategic environmental management plan under Part IV below: a need for co-operation and harmonisation with contractor EMP process. | <ul style="list-style-type: none"> • EMP template needs to be drafted. • <i>Guidelines for the Preparation and Evaluation of an Environmental management plan</i> to be drafted. • Similar to EIS, it is recommended that the above be undertaken by an expert and a draft template and guidelines circulated for comment by interested parties. • <i>Guidelines for the design and monitoring of Preservation Reference Zones and Impact Reference Zones</i> to be developed. This may require an expert working group. • Possible multi-stakeholder workshops post development of EIS and EMP templates. |

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| Social impact assessment and action plan (SIA) | Content / action plan to be defined for exploitation activities and socio-economic impacts in the Area. | <ul style="list-style-type: none"> • Can be integrated with EIS.¹⁷ • Given the remoteness of exploitation activities, no immediate communities or individuals potentially significantly affected by operations. • Other users of the marine environment to be considered. • Considerations for a social action plan could include contributions to marine research (e.g. the funding of research within Areas of Particular Environmental Interest (APEIs)) and incremental training programmes. • See also Seabed Sustainability Fund under Part IV below. | <ul style="list-style-type: none"> • Discussion to be advanced on a social action plan for the Area and a call to stakeholders to make contributions to this discussion. |
| Financing plan | Structure and content of plan to be developed. | <ul style="list-style-type: none"> • The financing plan will set out the details of how a contractor will finance the capital expenditure, working capital needs of the development and production phases and environmental management obligations. • Regulations and / or contract to provide for a consent mechanism to any charge, mortgage or pledge where such security is required by a financial institution over the mineral resources / interest in a contract for exploitation. | <ul style="list-style-type: none"> • Template Financing plan to be drafted. |
| Closure plan | Structure and content of plan to be developed. | <ul style="list-style-type: none"> • A closure plan raises many issues. It is seen as a dynamic plan that requires regular review and updating and must anticipate potential closure of an exploitation area prior to the expiration of any plan of work. • At this point it is difficult to assess the exact contents of a Closure plan for the Area, but <i>may</i> include:- | <ul style="list-style-type: none"> • Template Closure plan and <i>Guidelines for the Preparation and Implementation of a Closure plan</i> to be drafted. |

¹⁴ Endorsed in the Stakeholder Survey.

¹⁵ Modified for DSM-specific impacts, as the case may be.

¹⁶ See "Restoration and rehabilitation of the marine environment" below.

¹⁷ Draft EIS in ISA Technical Study No. 10 reflects "Socio-economic impacts" supra note 8 at page 25.

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
|--|---|--|--|
| | | <ul style="list-style-type: none"> ○ “basic” decommissioning (removal of installations, plant and machinery); ○ Restorative obligations at the time of closure? ○ Need for a guarantee or bond? ○ Post closure environmental management and monitoring obligations to be defined. Also to determine the period / duration of post closure monitoring – appropriate benchmark (years)? | |
| Size and location of exploitation area(s) covered by the plan of work | <p>Guidance criteria for determining the size (and location) of exploitation area(s).</p> | <ul style="list-style-type: none"> • The Convention requires that RRP be established in accordance with objective criteria for the size of areas being: stated production requirements, the state of the art of technology and relevant physical characteristics of the areas...which “shall be neither smaller nor larger than are necessary to satisfy this objective”.¹⁸ • Some stakeholders noted that such RRP should not simply be a determinant of size but also of <u>location</u> and that the Authority reserve the right to determine mining block order¹⁹ (adaptive management?²⁰). • Albeit, stakeholder comments regarding block order were directed at environmental considerations, the point is equally valid from the viewpoint of practices such as “high-grading”. What will the Authority’s policy, if any, be here? An average balanced grade? How will / should this be defined?²¹ | <ul style="list-style-type: none"> • There are matters of policy to be addressed by the Council. Specific guidelines then need to be drawn up to identify the criteria to be applied in assessing the size and location of exploitation area(s). It is likely that additional expert input is required here and / or initial thoughts of contractors as to their proposed exploitation areas and production requirements. |

¹⁸ Annex III, Article 17(2)(a) of the Convention.

¹⁹ This may necessitate the sub-division of exploitation areas into blocks. To be balanced with applicant's desire for commercial flexibility to manage exploitation operations.

²⁰ Initial duration of exploitation operations, review periods and the intensity of exploitation operations are also relevant considerations under an adaptive management approach.

²¹ See also Section 4 to this Report: Summary of high level issues.

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
|---|-------------------|---|--|
| | | <ul style="list-style-type: none"> • The US Deep Seabed Hard Minerals Resources Act makes reference to both size and location and to a “logical mining unit” which includes economic and environmental considerations as criteria.²² • Principles (“criteria”) for determining the size and location of the exploitation area suggested in the framework <i>could</i> include (and reflecting stakeholder responses): - <ul style="list-style-type: none"> ○ The production requirements of the applicant (Convention) / the commercial viability of the exploitation area; ○ The state of the art technology to be employed (Convention); ○ The relevant physical characteristics of the area (Convention); ○ The environmental considerations including the location of the exploitation area(s) and the intensity of the exploitation operations; ○ The proximity of the exploitation area(s) to adjacent exploration and / or exploitation areas covered under other third party plans of work / reserved areas;²³ ○ The proximity of exploitation area(s) to marine protected areas (including APEIs) and vulnerable marine ecosystems; ○ The size and location of PRZs and IRZs (depending on design criteria – see “Environmental management plan” above); | |

²² 30 U.S. Code § 1413, License and permit applications, review, and certification.

²³ There is a real possibility that exploitation operations in one area may impact adjacent exploration or exploitation areas through smothering by operational and discharge plumes. This needs to be addressed and buffer zones considered.

| Draft regulation description⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
|--|--|---|--|
| | | <ul style="list-style-type: none"> ○ The proximity of exploitation area(s) to coastal States (including EEZs and deposits); ○ The impact on other users of the proposed exploitation area(s); ○ The proximity to submarine pipelines and cables. | |
| Fee for applications | Wording can be adapted from the exploration regulations. | <ul style="list-style-type: none"> • The actual costs of processing exploitation applications will be considerably higher than that under exploration applications given the more stringent documentation reviews and inspections. Equally, decisions will need to be made concerning the costs for independent evaluation processes (e.g. the EA / EMP) and who these are to be incurred by. • Additional administration, revision, renewal and consent-type fees will likely arise under a contract for exploitation. • Note: the 1994 Agreement requires the payment of an annual fee from the date of commercial production.²⁴ This will be reflected in the “Financial terms” Part of the regulations, when drafted. | <ul style="list-style-type: none"> • It will not be possible to set an application fee at this stage until the review, assessment and administration processes are fully defined. |
| Receipt, acknowledgement and safe custody of applications | Wording can be adapted from the exploration regulations. | <ul style="list-style-type: none"> • No comment. | <ul style="list-style-type: none"> • Not applicable. |

²⁴ Annex, Section 8(1)(d). The point of commencement of commercial production is broadly defined in Annex III, Article 17(2)(g) of the Convention. There will be a number of factors that point toward commercial production having been reached. In land-based mining this can be a blurred area and the extent to which it is possible to define an operating capacity threshold may be preferable.

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
|--|--|--|--|
| Public review of the Environmental impact statement and Environmental management plan [and Social impact assessment and Closure plan] | An open, inclusive and cost-effective decision-making process needs to be developed for the review of specific documents by interested parties. | <ul style="list-style-type: none"> • Under the principle of transparency in decision-making on matters likely to have a significant impact on the environment (including socio-economic impacts), an-inclusive, open review process needs to be developed, particularly for the EIS / EMP, SIA and Closure plans. • Public concerned / potentially impacted are not immediately identifiable but mankind as a whole has, arguably, a vested interest. • While a public review and engagement process is common practice in many national jurisdictions, this requires much thought for activities in the Area, including the practicalities of any procedure, timings and costs. • A number of alternatives have been put forward by stakeholders, including review mechanisms by independent experts and panels and the public availability of relevant documents and information for review. | <ul style="list-style-type: none"> • A working paper needs to be drafted setting out the public participation options and procedures available, including independent expert review(s), based on stakeholder submissions and best practice regimes. The paper can then be circulated to stakeholders for comment. |
| Consideration by the Legal and Technical Commission | The content of this regulation (which can be adapted from the Exploration Regulations) together with evaluation guidelines is key for contractors – element of certainty as to process, timings and evaluation | <ul style="list-style-type: none"> • A re-write of this regulation is likely required to provide for all the necessary eventualities for the Commission's consideration of a plan of work and its subsequent recommendation(s) to Council for approval or rejection of an applicant's plan of work for exploitation. • Time limits and milestones in the process will also be critical to contractors as well as the evaluation criteria on which the Commission will ultimately base their recommendations to Council. This could include any reasonable conditions²⁵ proposed | <ul style="list-style-type: none"> • Detailed guidelines will be needed in respect of evaluation criteria to be used by the Commission. • A technical working paper needs to be drafted to elaborate on the concept of <i>sound commercial principles</i> (see 1994 Agreement, |

²⁵ An indication of "reasonable conditions" and how this will be interpreted should be considered. Plans of work will not be identical. Conditions could include: the provision of a bond or guarantee; the purchase and maintaining of a specified category of insurance; any specific monitoring and reporting obligations (over and

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| | criteria. | <p>by the Commission to the Council as part of that recommendation procedure.</p> <ul style="list-style-type: none"> An application for the approval of a plan of work for exploitation will require approval of all “documents”²⁶ submitted and must ensure that the necessary review and public participation procedures have been followed and account taken of submissions received by the Commission from interested parties. | <p>Annex, Section 6(1)(a)).²⁷</p> <ul style="list-style-type: none"> A technical working paper is required to elaborate on <i>substantial evidence</i> of risk of serious harm to the marine environment in the case of area(s) disapproved for exploitation.²⁸ |
| Consideration and approval of plans of work for exploitation by the Council | Wording can be adapted from the Exploration Regulations. | <ul style="list-style-type: none"> To consider whether Council should take an additional governance step of satisfying itself, particularly where a public review process is required, that submissions from any review mechanism have been duly taken account of in the decision-making process and that the application conforms, to best of knowledge and belief at the time, that say Annex, Section 6 of the Agreement has been complied with. | <ul style="list-style-type: none"> Should any specific Council procedures and criteria be developed here? |
| Independent technical expert working group / sub-committees | Consider setting up expert working groups or sub-committees to support the work of the Commission. | <ul style="list-style-type: none"> Given the pressures that applications for plans of work for exploitation will place on the existing assessment and decision-making structure, additional expert working groups or sub-committees may be required. | <ul style="list-style-type: none"> Should this be formalised under the regulatory framework? |

above those under the regulations); the appointment of observers; the duration of consent for an environmental management plan and any conditions relating in whole or part to an adaptive management approach. Conditions will be recorded in a relevant schedule to a contract for exploitation.

²⁶ Based on the documents (and other information requested) the Commission will need to be satisfied that an applicant has the capability and systems to deliver health and safety and environmental requirements; that the applicant has adequate technical and financial capability to deliver the plan of work and that project economics are sound etc.

²⁷ This provision stipulates that as part of the production policy of the Authority, the “development of the resources of the Area shall take place in accordance with sound commercial principles”. A marine minerals policy and programme document will need drafting when data and information on resources in the Area is more comprehensive.

²⁸ See Regulation 21(6)(c) PN Exploration Regulations.

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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Part III Contracts for exploitation

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| The Contract | Wording can be adapted from the Exploration Regulations. | <ul style="list-style-type: none"> In addition to the standard clauses, specific conditions may be approved by the Council based on recommendations by the Commission and reflected in the relevant Schedule to the Contract. | <ul style="list-style-type: none"> Not applicable. |
| Rights of the contractor | Wording can be adapted from the Exploration Regulations. | <ul style="list-style-type: none"> It would seem appropriate to identify, as exhaustively as possible, what rights, including exclusive rights, are being granted here, unless it is felt clear that the definition of “exploitation” covers this? For example, the definition of “exploitation” does not include “exploration” but should be a right to explore in the exploitation area(s). | <ul style="list-style-type: none"> Consideration to be given to this by the Secretariat. |
| Obligations of the Authority | To provide clarity on any obligations of the Authority. | <ul style="list-style-type: none"> To the extent that any duties of or obligations on the Authority are unclear or not dealt with elsewhere, a provision should be drafted to provide clarity, and reflected in the standard contract as appropriate. | <ul style="list-style-type: none"> Consideration to be given to this by the Secretariat. |
| Legal title to minerals | To provide that legal title passes on “recovery” but with any restrictions? | <ul style="list-style-type: none"> Are there any restrictions that can / should be placed on the transfer of title where the contractor is say in breach? For example, a prohibition on sale / disposal until all fees, royalties, profit-share etc. have been paid – or suitable arrangements made. | <ul style="list-style-type: none"> Consideration of the phrase “recovery in accordance with the Convention”²⁹ requires a technical working paper to be drafted. |
| Duration of contracts / renewal | This draft regulation relates to security of tenure and a key | <ul style="list-style-type: none"> The Convention prescribes limited objective criteria:³⁰ <ul style="list-style-type: none"> The economic life of the mining project – depletion of ore, the useful life of mining equipment and processing | <ul style="list-style-type: none"> Further understanding of contractor development, production and economic models and plans is required |

²⁹ Annex III, Article 1 of the Convention.

³⁰ Annex III Article 17(b)(iii) of the Convention.

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| | contractual term for contractors. | <p>facilities and commercial viability;</p> <ul style="list-style-type: none"> ○ To permit commercial extraction; and ○ Reasonable time for construction of commercial-scale mining <u>and</u> processing systems. ○ But (important wording): “the total duration of exploitation, however, should also be short enough to give the Authority an opportunity to amend the terms and conditions of the plan of work at the time it considers renewal in accordance with [RRPs] which it has adopted subsequent to approving the plan of work”. <ul style="list-style-type: none"> • Duration will likely be resource category specific. • The Stakeholder Survey identified periods of tenure ranging from an initial 10-year period to a general consensus range of 15-25 years and renewal (extension) periods of 5-10 years (at least in the case of polymetallic nodules). • Duration is also relevant to the development and revision of a financial payment mechanism. • It is suggested (from the Stakeholder Survey) that a substantive review period occur at approximately 5 years into the contract term. The specific conditions attached to that review should be established at the time of the initial application for a plan of work for exploitation. • It may be possible to approve stages of exploitation operations. In the early phases of this industry, the nature of the deposit may require a gradual procession to commercial production. If it subsequently comes to light that the deposit extent is less than originally forecast, the duration (or size of area) needs to be adjusted. Uneconomic production and recovery is to be avoided. • Commencement of mining: as soon as possible but a logical | <p>here.</p> <ul style="list-style-type: none"> • A balance needs to be established between the commercial requirements of contractors and the ability of the Authority to amend terms and conditions in accordance with revised RRP. • A working paper needs to be developed for circulation to stakeholders. • Guidelines need to be developed for the following: <ul style="list-style-type: none"> ○ Criteria for contract duration – resource specific. ○ Application and evaluation criteria for a substantive review. ○ Application and evaluation criteria for renewal of an exploitation contract. |

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| | | <p>development of production areas within the exploitation area leading to maximum economic recovery plus development of infrastructure and transporting and processing construction.</p> <ul style="list-style-type: none"> • As to periods of renewal / extension, thought will need to be given as to whether this should be treated as a “fresh” application and subject to identical rules of process and procedure as the original application? Bearing in mind the inclusive and participative approach being taken. • A starting point for the regulations could be: <ul style="list-style-type: none"> ○ Specify a maximum initial period; ○ Define the parameters of any renewal against specified criteria (depletion of ore, commercial viability, contractor not in material default) and documentation needs; ○ Provide for a substantive review period at the end of first 5 years based on pre-determined performance and other criteria and included in the contract – with the ability of the Authority to adjust terms etc. ○ And other review periods at pre-defined timeframes or triggered on the happening of specific events. | |
| Performance requirements | This draft regulation should specify the production obligations under a plan of work. | <ul style="list-style-type: none"> • Under the Convention³¹, the Authority is obliged to “establish a maximum time interval, after the exploration stage is completed and the exploitation stage begins, to achieve commercial production”. Allowance here is to be given for construction time and unavoidable delays. • Then following commercial production, “the Authority shall within reasonable limits and <i>taking into consideration all relevant factors</i> require the operator to maintain commercial production | <ul style="list-style-type: none"> • <i>Guidelines for the evaluation of Production performance requirements under a contract for exploitation</i> to be drafted. To include key performance criteria and indicators. • Council to consider as a matter of policy, in |

³¹ Annex III Article 17(2)(c) of the Convention.

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| | | <p>throughout the period of the plan of work". Need to elaborate on <i>taking into consideration all relevant factors</i>. That is, in practice, what factors will potentially delay, halt or suspend commercial production? Technical and economic conditions will be one factor.</p> <ul style="list-style-type: none"> • The mining plan and estimated date of commercial production will be assessed during the evaluation phase (Feasibility study). The approved Feasibility study locks the contractor in to the production undertakings in that study. • A cut-off point needs to be adopted where no commercial activity has taken place and to afford other operators the opportunity of developing the resources in that area. The US Deep Seabed Hard Minerals Act provides a cut-off point of 10 years, unless a contractor can show just cause.³² Equally, for any periods of inactivity, should the contractor be required to pay a surface rent? Arguably, yes but at what rate / level? • Also provision should be made for a contractor to apply for a suspension in commercial production due to say economic conditions (see also Revision clause in the contract). • Performance requirements expected of the contractor are key and arguably form fundamental terms of the contract. Flowing from the Feasibility study, key performance criteria and indicators should be established. Guidelines will be needed. For example, the Feasibility study should provide production estimates for the mining operation; where recovery falls below such agreed estimates by a pre-determined percentage, the Authority should be in a position to require the contractor to improve the efficiency | <p>discussion with relevant stakeholders, a cut-off point for commercial inactivity.</p> |

³² See 30 U.S. Code § 1417, Duration of licenses and permits.

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| | | <p>etc. of the mining operation.</p> <ul style="list-style-type: none"> From a commercial perspective, a contractor should be permitted to make <i>minor</i> changes to an approved programme of activities without recourse to the Authority. However, any <i>material</i> changes should require the Authority's prior approval. The distinction between <i>minor</i> and <i>material</i> should be discussed and agreed during the application and approval process and also reflected in any guidelines. It is usual in a land-based mining context that an operator is required to undertake capacity tests of the mining equipment. Again, this needs to be considered. The following could also be included in this section: <ul style="list-style-type: none"> Production takes place in accordance with sound commercial principles (see "Consideration by the Legal and Technical Commission" above); No subsidization of activities; No discrimination; Stipulate Council's powers to investigate and take measures. | |
| Conservation of the natural resources of the Area³³ | General obligation to avoid unnecessary waste. | <ul style="list-style-type: none"> To permit the Authority to impose reasonable conditions to prevent waste. To permit the Council to issue conservation measures to promote the conservation of the natural resources for future generations. Visibility of processing and treatment of the ore should be stipulated. | <ul style="list-style-type: none"> A policy in respect of waste management needs to be developed. |
| Use of sub- | To specify the obligations on a contractor where | <ul style="list-style-type: none"> Contractor's right to sub-contract but also contractors to extract | <ul style="list-style-type: none"> Not applicable. |

³³ Article 145(b) of the Convention.

| Draft regulation description⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| contractors | sub-contractors are engaged. | <p>the necessary guarantees for sub-contractor performance.</p> <ul style="list-style-type: none"> • The use of sub-contractors should be addressed in the Feasibility study – full disclosure. | |
| Vessels operating in the Area | To specify the obligations on a contractor in relation to vessels undertaking activities in the Area. | <ul style="list-style-type: none"> • Requirement for vessels engaged in exploitation activities to remain in Class and be subject to general international legal obligations and appropriate conventions. • Need to establish clear line of duties and responsibilities and co-operation between the Authority and the International Maritime Organization (IMO). | <ul style="list-style-type: none"> • Discussions between the Authority and the International Maritime Organization to be formalised. |
| Protection of submarine cables and pipelines | To specify the obligations on all parties including notification procedures. ³⁴ | <ul style="list-style-type: none"> • Procedures to be established to notify submarine cable operator organizations of a plan of work application showing co-ordinates of proposed exploitation area(s). • Reporting / notification protocols to be established. | <ul style="list-style-type: none"> • Discussions between the Authority and relevant representative organizations formalised. |
| Health and safety | To specify the additional measures that supplement existing international agreements. ³⁵ | <ul style="list-style-type: none"> • To establish what supplementary duties and obligations the Authority has as a regulator in connection with health and safety together with applicable standards. • Training of employees in health and safety procedures. • Labour standards also require consideration. | <ul style="list-style-type: none"> • To determine additional international / DSM-specific standards and the extent of the Authority's remit / duties and responsibilities. |
| Training | Training obligations on a contractor. | <ul style="list-style-type: none"> • To be submitted as part of the documentation requirements on application for a plan of work. • Thought to be given to the needs of the future industry and training programmes targeted accordingly. Training obligations could also be facilitated under the requirements of a Social | <ul style="list-style-type: none"> • To establish areas of skills and talent shortages key to the development of the DSM industry. |

³⁴ Arguably an obligation for sponsoring States to have RRP in place as well. See Article 113 of the Convention.

³⁵ See Article 146 of the Convention. Relevant international agreements / practices include: International Convention for the Safety of Life at Sea and International Management Code for the Safe Operation of Ships and for Pollution Prevention (IMO).

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| | | <p>impact assessment and contribution, that is, incremental training programmes including tertiary scholarships etc.</p> <ul style="list-style-type: none"> Note: training obligations of contractor personnel too in matters of occupational health and safety etc. | |
| Periodic review of the implementation of the plan of work for exploitation | As per content of Exploration Regulations. | <ul style="list-style-type: none"> Periodic review at 5-year intervals. Contractor is obliged to implement / adjust its programme of activities for the next five year period (adaptive management approach). Greater clarity and guidance will be needed over the substance and content of these reviews for exploitation programmes. Additionally certain events will require notification and perhaps the production of incident or exception reports. For example, if commercial production falls below average targets, casualties or the achievement of milestones. Specific conditions may be imposed which require more regular reporting. Reporting is obviously a key area of governance under the regime but it needs to be targeted and relevant to the Authority's role as regulator. | <ul style="list-style-type: none"> <i>Guidelines on Procedures and Information Requirements for Review</i> to be drafted. |
| Termination of sponsorship | As per Exploration Regulations. | <ul style="list-style-type: none"> What obligations remain with the contractor post termination? Does a contractor remain liable for say EMP monitoring obligations? | <ul style="list-style-type: none"> To establish clarity on post termination obligations for a contractor. |
| Responsibility and liability | As per Exploration Regulations. | <ul style="list-style-type: none"> Wording of the Exploration Regulations principally reflects the Convention.³⁶ The liability of the contractor is for wrongful acts. There is also an overlap in responsibility and liability under the laws of a sponsoring State. Strict liability may be imposed under national law. The area of liability and redress in the Area particularly as | <ul style="list-style-type: none"> Legal workshop required to explore and develop further principles of responsibility and liability in the Area. |

³⁶ Annex III, Article 22.

| Draft regulation description⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| | | regards environmental damage remains at an embryonic stage of development. ³⁷ Calls for a separate working group to look at this issue were made in the Stakeholder Survey. | |

Part IV Protection and preservation of the marine environment

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| Protection and preservation of the marine environment | General wording in Exploration Regulations to be adapted. | <ul style="list-style-type: none"> Acknowledgement of the general principles and obligations within the exploration regulations should remain. That is, application of the precautionary approach, BEP, measures to control pollution. Should also specify an adaptive management approach as part of BEP. A vast amount of work needs to be performed in this area from agreeing the thresholds of serious harm to the efficacy of PRZs and IRZs, developing workable environmental targets and indicators and the application of a precautionary-risk management framework. Prescriptive regulations and detailed guidelines will be the ultimate output here; however, it is too early to draft the same without input from experts, interested stakeholders, relevant international organizations (e.g. IMO in respect of marine pollution) and knowledge advancement. Dumping: the 1972 London Convention³⁸ and the 1996 Protocol to the London Convention currently exclude the dumping of wastes or other matter connected with seabed mining activities from its scope. More specifically Article 1(4)(3) of the 1996 Protocol states “[t]he disposal or storage of wastes or other matter directly arising from, or related to the exploration, | <ul style="list-style-type: none"> This area requires the formation of targeted expert workgroups consisting of a broad range of stakeholders, including relevant international organizations. Specific consideration of “dumping” RRP. |
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³⁷ The Seabed Disputes Chamber of the ITLOS noted “[a]rticle 304...opens the liability regime for deep seabed mining to new developments in international law”, either under the existing regime or under customary international law. This is further endorsed by the Convention which obliges the ISA Assembly to promote “international co-operation concerning activities in the Area” and to encourage “the progressive development of international law relating thereto”.

³⁸ Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter.

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| | | <p>exploitation and associated off-shore processing of seabed mineral resources is not covered by the provisions of this Protocol”.</p> <ul style="list-style-type: none"> It would thus seem that the disposal or storage of waste or other matter directly arising from “activities in the Area” will need to be regulated by the Authority as the competent agency / international body. What will constitute “dumping” in the Area? E.g. the deliberate disposal of sediment from on-board processing and vessels and mining collector in emergency situations? What protection measures will be needed (possible co-operation between the Authority and the IMO)? Regulations should be drafted and the terms for say an EMP should / could reflect specific waste assessment framework(s), monitoring and reporting obligations connected with the dumping of waste (as defined). | |
| Environmental management | To operationalize the EMP. | <ul style="list-style-type: none"> The OSPAR <i>Guidelines for Monitoring the Environmental Impact of Offshore Oil and Gas Activities</i> (2004-11) provide a sound basis and guide aimed at environmental monitoring (the design and conduct of monitoring programmes) of discharges from oil and gas activities. This can be adapted for the specific requirements of exploitation activities together with other relevant best practice identified in the Stakeholder Survey and through future expert / workshop engagement. This regulation should oblige the contractor to have an internationally recognized environmental management system (EMS) in place e.g. ISO 14001: 1996. Specialists should conduct independent audits say every 2 years for the EMP and EMS. Any material revisions to an EMP to require the prior approval of | <ul style="list-style-type: none"> Specific guidelines on environmental management systems to be developed. |

| Draft regulation description⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| | | <p>the Authority.</p> <ul style="list-style-type: none"> Contractors should, in addition to their reporting obligations to the Authority, make available a public annual statement of its environmental targets and its performance delivery against environmental indicators. | |
| Emergency orders | As per Exploration Regulations. | <ul style="list-style-type: none"> This is an area that requires further detailed input as to its practical operation. While the rationale behind emergency measures is sound, its practical application may be limited. Consequently, a focus on and during the application, reporting, inspection and review processes of contractor risk management systems and processes will be of greater significance, including a contractor's Emergency response and procedures plan. While this regulation is targeted at the protection of the marine environment, human health and safety is of fundamental importance. Can draw on much existing best practice where relevant,³⁹ including reporting protocols. | <ul style="list-style-type: none"> Secretariat to review contemporary best practice in the field of marine disaster management and responding to emergency situations including the lessons learned. |
| Strategic environmental management plan (SEMP) | The requirement to conduct regional SEIAs and deliver regional SEMP's. | <ul style="list-style-type: none"> This regulation would place an obligation on the Authority to conduct a Strategic environmental impact assessment(s) of the Area and to develop Strategic environmental management plan(s) (SEMPs) including the development of APEI's. The issue of regional SEMP's for the Area drew much discussion from stakeholders and the need to have SEMP's in place prior to commercial exploitation. The regulation should specify the objectives of the SEMP's. | <ul style="list-style-type: none"> Regional workshops and co-operation to be developed to formulate regional SEMP's. |

³⁹ For example, stakeholders suggested: International Convention on oil pollution preparedness, response and cooperation, 1990; IMO Pollution Incident Response Planning Resolutions MEPC.54(32) & MEPC.85(44); EPA (US) Area Contingency Planning Handbook and EU Directive 2012/18/EU on control of major-accident hazards involving dangerous substances.

| Draft regulation description⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| | | <ul style="list-style-type: none"> See also contractor EMP obligations under Part II above: a need for co-operation and harmonization of SEMP and contractor EMP deliverables. | |
| Rights of coastal States | The wording from the Exploration Regulations remains relevant. | <ul style="list-style-type: none"> Reference to any likely impacts on coastal states should be addressed in the EIS, where considered significant. See also “Size and location of exploitation area(s) covered by the plan of work” above. | <ul style="list-style-type: none"> None at this stage. |
| Environmental bonds and performance guarantees | To provide for a bond or financial guarantee where requested by the Authority. | <ul style="list-style-type: none"> The necessity for a bond or related performance guarantee requires detailed consideration together with the form that any bond / guarantee should take: cash deposit, parent company guarantee, State guarantee, financial institution letter of credit – and associated investment grade of any issuer. Cash bonds are preferable. The terms of its release and what can be deducted against the deposit must be established. For commercial operators there is generally a preference for commercial insurance rather than bonds. Importance of equality of financial treatment and comparable financial obligations across the contractor base. Not all jurisdictions request a bond in practice under mining regimes but may make provision in their regulations for a bond, particularly to secure any closure obligations (restoration / rehabilitation). In the case of activities in the Area these obligations may be minimal (save for any post closure monitoring) and a cash bond or guarantee connected with the performance of the EMP may be more preferable. | <ul style="list-style-type: none"> The interaction between commercial insurance and bond mechanisms needs to be investigated together with the terms and conditions, including appropriate quantum of any bond. |

| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| Restoration and rehabilitation of the marine environment | A general restoration obligation where restoration is feasible seems appropriate. | <ul style="list-style-type: none"> • To include a general restoration obligation.⁴⁰ Restoration to occur where directed to do so by the Council. This would be based on the Commissions' recommendations that would take account of the likely effectiveness of techniques based on necessity; technical feasibility; and cost-efficiency on the basis of a cost benefit analysis, where such quantification can be reasonably assessed. • Restoration will also be impacted by "passive rehabilitation", that is, the ability for natural recovery to occur. • "Restoration" & "rehabilitation" will require appropriate legal / scientific definition in a marine environment context. | <ul style="list-style-type: none"> • None at this stage. |
| Adaptive management approach | A regulation that better defines adaptive management. | <ul style="list-style-type: none"> • All actors to adopt an adaptive management approach to exploitation activities. Adaptive management may include:- <ul style="list-style-type: none"> • The permitting of exploitation operations to proceed on a smaller scale or for shorter defined periods of time in order to assess impacts on the environment and on human health and safety; • The duration of any approval of an EMP; • The frequency of review periods to be imposed by the Authority; and • Additional reporting obligations under an EMP. • Note: this approach should be balanced with the commercial (economic) viability of operations (principles of sustainable development). Development of cost-benefit analysis models needed. | <ul style="list-style-type: none"> • Adaptive management in connection with exploitation activities in the Area requires further elaboration with interested parties. |

⁴⁰ General consensus by stakeholders for focus to be on impact minimisation and mitigation measures rather than restoration at this time.

| Draft regulation description⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| Seabed sustainability fund | To establish a seabed sustainability fund with targeted objectives. | <ul style="list-style-type: none"> The idea and rationale of a fund is for the Authority to be in a position, based on expert recommendations, to direct further research e.g. in relation to marine ecosystems in the Area and to develop institutional capacities.⁴¹ At the moment the Authority / Common heritage of mankind are in a “Catch 22” with no budget for large-scale research activities. Research remains a principal obligation for contractors. The fund could be financed by way of a levy e.g. USD x per wet / dry ton of ore recovered on board the mining vessel. Contributions to the fund could also be considered an element of social contribution. The fund could target the development of technology, which also presents a revenue stream opportunity for the fund (e.g. patent royalties). Such a fund's merit and appeal has yet to be tested but there is a strong rationale for such a fund. | <ul style="list-style-type: none"> A working paper to be drafted articulating the concept and objectives of such a fund for circulation to interested parties. |
| Environmental liability trust fund | As recommended by the Seabed Disputes Chamber of the ITLOS. ⁴² | <ul style="list-style-type: none"> The rationale for such a fund stems from a potential environmental liability gap. The merit of such a fund was presented in the Stakeholder Survey. Given the suggested Seabed sustainability fund above, the need for an additional fund requires consideration. However, the rationale for this fund is different and could be funded by | <ul style="list-style-type: none"> None at this stage. |

⁴¹ The concept of such a fund originated from the Stakeholder Survey and is based on the Aggregates Levy Sustainability Fund in the United Kingdom. The rationale for such a fund is also supported by other stakeholder comments including the development of a non-fault based mechanism for research in the deep sea environment.

⁴² International Tribunal for the Law of the Sea: Case No. 17: *Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area* (Request for Advisory Opinion submitted to the Seabed Disputes Chamber).

| Draft regulation description⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| | | allocating a portion of production royalties received by the Authority. | |
| Human remains and objects and sites of an archaeological or historical nature | The wording of the Exploration Regulations remains relevant. | <ul style="list-style-type: none"> The SIA and action plan should address any specific matters relating to the cultural heritage in the exploitation area(s). | <ul style="list-style-type: none"> None at this stage. |

Part V Confidentiality

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| Confidentiality of data and information & Procedures to ensure confidentiality | The wording of the Exploration Regulations <i>may</i> be relevant. | <ul style="list-style-type: none"> Amendment of the Exploration Regulation's wording may be required in the light of any agreed public participation and review processes. The principles of the EITI are also relevant here. There is a call, within the Stakeholder Survey for a presumption that all data is public (including contracts for exploitation etc.) unless demonstrated otherwise. This would not extend, however, to confidential information and data. Data flow and participation / review processes will drive any amendment of the confidentiality provisions here. Best practice is to be sought. | <ul style="list-style-type: none"> Confidentiality is raised as a high-level issue under Section 4 to this paper. |
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Part VI General procedures

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| Notice and general procedures | The wording of the Exploration Regulations remains relevant. | <ul style="list-style-type: none"> None. | <ul style="list-style-type: none"> None. |
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| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| Recommendations for the guidance of contractors | The wording of the Exploration Regulations remains relevant. | <ul style="list-style-type: none"> This provision may need to be “updated” as to the processes necessary to draft and adopt such recommendations, including the necessity for expert input and review by interested parties where applicable. | <ul style="list-style-type: none"> The process of issuing recommendations by the Commission needs review. |
| Duty to cooperate | A general duty on all parties to co-operate and exchange information is necessary. | <ul style="list-style-type: none"> A general regulation to stipulate the Authority’s obligation to co-operate with a sponsoring State (and vice-versa) where required. Member States should equally be under a duty to co-operate and assist the Authority (and vice-versa). A duty to co-operate with the Authority is not only essential for “joint” investigation and enforcement of operational obligations, but also of sharing information for financial auditing purposes. In practical terms once an ore vessel has left the Area, what “control” will the Authority have over auditing for say royalty payments? Access by a Member State to customs and related documentation when the vessel arrives in a Member State port or shipments to the treatment and processing plants will be crucial. Aside from “co-operation”, perhaps an <i>exchange of information</i> provision is applicable here as well defining the types of information that needs to be shared to allow the Authority and Member States (and sponsoring States) to discharge their duties to the common heritage of mankind. | <ul style="list-style-type: none"> None but see Section 4: Summary of high level issues. |

Part VII Enforcement, offences & penalties

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| Inspection | To include inspection regime in headline regulations rather than standard terms of contract. | <ul style="list-style-type: none"> The general wording of the Exploration Regulations (contract) should be retained. However, the inspection regime requires detailed input, an understanding of any potential overlaps with sponsoring State regimes and its funding and independence. Use of best technology for remote supervision / “inspection”. | <ul style="list-style-type: none"> Develop a working paper setting out a suggested structure and options, including funding, for the operation of an inspection regime, taking account of |
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| Draft regulation description ⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
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| | | <ul style="list-style-type: none"> • Need parameters for: <ul style="list-style-type: none"> ○ What will be inspected? ○ The qualifications of inspectors? Multi-disciplined or specific focus? ○ The training of inspectors? ○ Production of an inspector's manual. ○ Code of Good Practice on integrity, professionalism and transparency (see Paris MOU / Regional Port State Control). • Option here for Member States to nominate their nationals as inspectors. But for such nationals not to be permitted to inspect operations involving their nationals or persons under their control where a Member State is say a sponsoring State. • In a DSM context, could explore possibilities of cooperation between the Authority's Mining Inspectorate and Regional PSC MOUs to collaborate on gathering and sharing data on contractors' compliance with their obligations, including mining equipment certification and standards (apparently being developed by classification society ABS and maybe others), contingency, safety plans and other plans relevant to the Mining Inspectorate. • (See also "Duty to co-operate" above, which will also be of relevance here). | <p>comments made in the Stakeholder Survey.</p> |
| Offences & penalties | Specific, measurable offences to be defined together with associated penalties. | <ul style="list-style-type: none"> • A specific list of offences to be included in the regulations, as amended by the Council as appropriate. Parallels can be drawn from existing regimes. • Penalties can either be included in an annex to the regulations, as amendable by the Council. • General characteristics: proportionality; escalation process (i.e. | <ul style="list-style-type: none"> • Desktop review to be undertaken on existing / comparable regimes. • Interaction with sponsoring State offence and penalty regime to be understood. |

| Draft regulation description⁴ | Specific elements | Commentary / suggested content | Actions for operationalization of draft regulation |
|---|--------------------------|---|---|
| | | warning process, agreement for remedial action; enforcement notice; administrative penalty etc.). Penalties ideally against measurable parameters (targets, thresholds) rather than breaches of procedural obligations? | |

Part VIII Disputes

| | | | |
|-------------------------------|---------------------------------|---|--|
| Settlement of disputes | As per Exploration Regulations. | <ul style="list-style-type: none"> Opportunity to consider “lower level” administrative appeals for the plan of work application process? That is, a simpler appeal mechanism for the Commissions’ recommendations on the outcome of a plan of work or its constituent elements. | <ul style="list-style-type: none"> A technical working paper needs to be prepared to set out dispute resolution options under the Convention. |
|-------------------------------|---------------------------------|---|--|

Part XI Resources other than [mineral category]

| | | | |
|--|---------------------------------|---|---|
| Resources other than [mineral category] | As per Exploration Regulations. | <ul style="list-style-type: none"> None. | <ul style="list-style-type: none"> None. |
|--|---------------------------------|---|---|

Part X Review

| | | | |
|---------------|---------------------------------|---|---|
| Review | As per Exploration Regulations. | <ul style="list-style-type: none"> Given an adaptive management approach, in the early stages of development, the exploitation regulations will benefit from an annual evaluation. | <ul style="list-style-type: none"> None. |
|---------------|---------------------------------|---|---|

Annex II Contract for exploitation

A full analysis of the proposed standard clauses for a contract for exploitation is not given below. Many of the standard clauses including development, production and performance obligations will flow from the headline regulations. However, there are 5 suggested provisions below that require action and / or consideration.

| Clause relating to:- | Commentary | Action |
|-----------------------------------|---|---|
| “Dealings” or arrangements | <ul style="list-style-type: none"> A contractual clause (or regulation) may be needed to deal with any unfair or uneconomic practices (Annex, Section 6 of the Agreement) that occur in the downstream process. This needs expert consideration but there could be agreements, transactions or arrangement that may require the prior consent of / notification to the Authority (Council). This is a specialist area and requires expert input. That said, transparency, exchange of information and co-operation will facilitate any appropriate obligations on the Contractor (and Member States under the Agreement). Financial arrangements downstream may also impact the financial payment system depending on its final formulation, including non-arm's length sales. | Expert input required in connection with the development of RRP's (under the Agreement) relating to unfair and / or uneconomic practices (in accordance with the requirements of the Agreement). See also “Undertakings” above. |
| Annual Reports | <ul style="list-style-type: none"> Guidelines will need to be prepared to determine the format and content of a contractor's annual report to the Authority. Subject to specifically agreed confidentiality criteria, these should be made publicly available (or as a minimum, part thereof) under the transparency principle. There also needs to be standardization in reporting. A template(s) needs to be devised for this purpose together with an analysis of actual performance against previously agreed performance indicators. Though this clause speaks to “Annual Reports”, there will be other specific contractor reporting obligations under the regulations. | <i>Guidelines for the Preparation of Annual Reports</i> to be drafted. |

| Clause relating to:- | Commentary | Action |
|---|---|---|
| Insurance | <ul style="list-style-type: none"> Requirement to maintain insurance in accordance with approved plan of work. Annual evidence required. Requirement to maintain with “financially sound and reputable insurers” – consistent with Good Mining Industry Practice. This is a specialist area, not least when combined with environmental liability insurance. Specific guidance and advice is required for the Authority to have a full understanding of products available, including deductibles, and their efficacy. More prescriptive description of insurance requirements required. See also “Environmental bonds and performance guarantees” above. | Discussions with contractors, the insurance industry and other stakeholders needed here to gain knowledge and understanding of insurance specifics, including limitations, exceptions and exclusions. |
| Suspension and termination of contract and penalties | <ul style="list-style-type: none"> Wording from Exploration Regulations to be retained. However, clarification needed over <i>serious persistent and wilful violations</i>;⁴³ and what are considered fundamental terms of the exploitation contract? Fundamental terms of the contract can be specifically defined in the contract. Serious and persistent can be clarified in guidance notes reflecting a penalty regime. | Technical paper to clarify meaning of <i>serious persistent and wilful violations</i> based on existing best practice in extractive industries. |
| Revision | <ul style="list-style-type: none"> The revision clause in the Exploration Regulations is of greater significance to exploitation contracts. The clause is to be taken from Annex III, Article 19 of the Convention. As an immature industry, it will be difficult to anticipate all eventualities. However, some guidance should be considered in terms of understanding the concepts of <i>inequitable, impracticable and impossible</i> contained in Annex III, Article 19. Equally, any review periods provided for in the regulations could ease the operation of this contractual provision. Transparency of any agreed changes to the terms of a contract is key; hence a disclosure provision should be reflected, subject to confidentiality provision. Could include suspension of operations for market conditions (note: obligations under an EMP to continue). | Technical paper to clarify meaning of <i>inequitable, impracticable and impossible</i> referenced in Annex III, Article 19, Convention. |

⁴³ Annex III, Article 18 of the Convention.

Section 3: Summary of the response of the Legal and Technical Commission to Stakeholder Survey submissions

The Commission acknowledges submissions made to the Stakeholder Survey and takes this opportunity to thank all those who have responded. The submissions received to date are from: 20 Members of the Authority (includes responses from statutory bodies, governments, ministries and departments); 9 contractors; 13 non-governmental organizations; 4 scientific and research institutions, 6 private entities and 3 individuals.

A synthesis of submissions to the survey has been undertaken by the Secretariat. Submissions not asked to be kept confidential were placed on the website of the Authority; others remain confidential. The Commission took account of all submissions in its development of the draft framework for the Exploitation Regulations.

The Commission is however aware that submissions anticipated particularly from many Member States have not been received so far. It is hoped that this Report will provide an opportunity and encourage those that have not responded to do so. These responses are requested to be submitted to the Secretariat not later than mid-May 2015 so that they can be considered in the further development of the framework before the Council meets in July 2015. A wider stakeholder base will also permit the Commission to better categorise stakeholder groups and interests.

Stakeholders who responded to the 2014 Survey are also invited to provide further comments on this Report no later than mid-May 2015.

Section 4: Summary of high level issues

The Commission has considered a number of high level issues relating to both the strategic approach to and operational development of a regulatory framework. This Section 4 summarises these high level issues. Where applicable, actions flowing from a discussion of the issues will be reflected in the *Draft action plan* in Section 5 to this document.

It is also likely that these issues will emerge into the regulatory framework in one form or other.

At this stage, comments are invited as to whether (1) any high level issue is considered as missing from the list; (2) that the commentary appropriately reflects understanding of the issue and (3) how these issues could be incorporated into the framework.

| High level issue | Commentary |
|--|---|
| 1. Information and data – what we know, what we don't know, what we need to know | The Authority is currently operating in a data deficient environment, particularly as regards resource data and environmental data. It is recommended that the Authority establish a fit-for-purpose data management strategy as a matter of priority. This is relevant for both the development of the regulatory framework and on-going informed decision-making. |
| 2. An interim framework | The basic draft framework at Section 2 of this document is a starting point to facilitate constructive dialogue with stakeholders and to aid identification of further areas of study and expert input. As a consequence of 1. above, the framework will remain very much “work-in-progress” until such time as knowledge gaps can be filled. |
| 3. One exploitation framework? | It is recommended at this stage that the core rules, regulations and procedures (RRPs) are set out in one over-arching framework. Resource-specific RRP's can be developed at a later stage. However, an initial focus will be placed on a regulatory framework for polymetallic nodules. |
| 4. Activities in the Area – clearly defined boundary points? | The specific boundary points for defining activities in the Area and the specific obligations and duties of the various actors, including that of the Authority, is unclear. This includes the potential overlap with the competencies of other relevant international organizations including the International Maritime Organization. A clear picture of boundary points, including those relevant to environmental, financial and resource conservation matters needs to be drawn. |
| 5. The transition between exploration and exploitation phases | Aside from the issue of the extension of contracts for exploration, two further issues are relevant. First, the need to develop a process and procedures for prior environmental impact assessment for specific activities undertaken under a contract for exploration. ⁴⁴ Secondly, for reasons of commerciality, it is recommended that the concept of a provisional mining licence ⁴⁵ , while having some merit, is forgone and that a substantive review period against pre-determined performance indicators is undertaken within a 5-year period from the commencement date of a contract for |

⁴⁴ See IBSA/19/LTC/8.

⁴⁵ See ISA Technical Study: No. 11 at page 4 for background.

| High level issue | Commentary |
|---|--|
| | exploitation. |
| 6. Risk assessment, evaluation and management | The development of risk assessment and risk management standards and systems (for environmental, occupational health and safety and operational risk) is fundamental to the orderly development of activities in the Area. It is recommended that the Authority gains a better understanding of the risk profile (hazards and classification) of anticipated exploitation operations through dialogue with contractors and other relevant experts plus ability to draw on existing risk frameworks in related sectors, including oil and gas. ⁴⁶ |
| 7. Time limits and costs | The need for certainty and fairness in the regulatory process points toward clearly prescribed time limits. Time-scales can be benchmarked against best practice mining regimes and be modified to take account of the decision-making structure of the Authority. Equally, the operation of the framework must be cost-effective and the sharing of its costs discussed. |
| 8. Confidentiality | A tension could exist between the existing confidentiality provisions contained in the Exploration Regulations ⁴⁷ and the transparency demands of an exploitation framework, particularly public access to relevant data and information and participation in the environmental decision-making process. ⁴⁸ There is a growing call in the extractive industries for greater levels of transparency through information disclosure ⁴⁹ and a presumption that information relating to contracts and activities under contracts is publicly available ⁵⁰ , save for confidential information. ⁵¹ The issue of publicly available information and meaningful stakeholder participation in the decision-making processes is a policy matter for the Authority in discussion with interested stakeholders. |

⁴⁶ Other assessment frameworks recommended by stakeholders includes: *Assessment Framework for Scientific Research Involving Ocean Fertilization* LC 32/15, annex 6 (IMO parties); *Specific Guidelines for the Assessment of Carbon Dioxide for Disposal into Sub-seabed Geological Formation* LC32/15 annex 8.

⁴⁷ See Regulations 36 and 37 PN Exploration Regulations.

⁴⁸ See The UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, Aarhus, 25 June 1998. See also *IFC Performance Standards on Environmental and Social Sustainability*, January 2012.

⁴⁹ For example, the Extractive Industries Transparency Initiative.

⁵⁰ *Model Mine Development Agreement*, MMDA 1.0, International Bar Association.

⁵¹ Relating to “commercial”, “economic”, “property” and “business secrets” etc.

| High level issue | Commentary |
|--|--|
| 9. Effective protection for the marine environment from harmful effects | The importance of a number of environmental protection and mitigation tools under the Convention and the procedural obligations to deliver the same is vital. It is recognised that the Authority and other actors should adopt an ecosystem-based approach to environmental management in the Area. Additionally, it is recognised that specific criteria and guidance must be developed for concepts such as “significant adverse change” and “vulnerable marine ecosystems”; to this end the Authority can draw upon existing best practice definitions ⁵² and work already in progress across the stakeholder base. Equally, the development of a precautionary risk management framework is fundamental to the delivery of protection goals. |
| 10. “Internationally recognized standards” and their significance in exploitation activities | Standard(s) development as part of good mining industry practice ⁵³ is a pre-requisite to the orderly development of the industry and a key consideration for the regulatory framework across a broad-range of subject matter. The content and credibility of industry standards should be delivered through consensus-building and a multi-stakeholder approach. Many international standards ⁵⁴ , including those developed in the oil and gas sector, will be directly applicable to exploitation activities. Indeed many standards have been suggested by stakeholders. ⁵⁵ Others will require modification and development. Standard(s) development should, primarily, be an industry-driven initiative. ⁵⁶ |

⁵² For example, under the UN FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas and the Convention on Biological Diversity’s criteria for Ecologically or Biologically Significant Marine Areas (EBSAs).

⁵³ See Annex III, Article 17(1)(b)(xii) of the Convention relating to the adoption and application of mining standards and practices.

⁵⁴ Also need to consider regional or country standards which may be equivalent to, based on or have a higher level of standard. E.g. EU Regulation (EC) No 761/2001 Eco-management and audit scheme (EU).

⁵⁵ For example: Code for Environmental Management of Marine Mining (IMMS); ISO 14001; ISO 9001/9002; ANZI Z10 or OHAS 18001 (health and safety management system-related).

⁵⁶ Ultimately standards will need to be backed-up by the necessary regulatory checks and balances: reporting, notification, inspection and independent audit obligations and procedures. That is, a general question of how standards will be enforced.

| High level issue | Commentary |
|--|--|
| 11. Sponsoring State(s) and the Authority – a clear division of duties and responsibilities? | It is not believed that the division of duties and responsibilities is clearly defined between a sponsoring State and the Authority. This relates to matters including enforcement and monitoring / inspection, offence and penalty systems, liability and responsibility of a contractor etc. From a contractor's perspective there is the potential for a duplicative regulatory burden. This needs to be clarified and duties and responsibilities more clearly defined. Equally, this also points to effective co-operation between the Authority and a sponsoring State. |
| 12. "High-grading" of mineral deposits | The issue of "high-grading" was addressed in the Stakeholder Survey and drew a number of diverging stakeholder opinions including: that a grading policy should be a matter for commercial determination; that low-grade mining could become economical over time as technology develops and that high-grading potentially minimizes the environmental footprint ("untouched" lower grade areas). Other stakeholders made reference to the exploitation of an "average balanced grade". The issue of grading policy needs further consideration with interested parties, including "typical" break-even cut-off grades (economic and technical feasibility) and environmental policy considerations. |
| 13. Other: existing best practice, learnings, co-operation and information-sharing | Other aspects of relevance include the need to draw on existing best practice and not to "reinvent the wheel" and to identify any defects and learnings from the current exploration application and implementation process, including new ways of doing business identified by the Commission. Additionally, the general need for co-operation and information sharing will be fundamental to the effective operation of the regulatory framework. |

Section 5: Draft action plan

This draft action plan is derived from Section 2 of this report “Draft framework for the Exploitation Regulations” which, when further developed by July, will be reported to Council for its consideration.

The plan at this stage attempts to identify in a simple way the areas of priority as follows (the dates indicated are those of the anticipated upcoming meetings of the Commission):

- Priority A: Initiate by July 2015;
- Priority B: Initiate by February 2016;
- Priority C: No action anticipated at this time.

Developing a Regulatory Framework for Mineral Exploitation in the Area

| Draft regulation description | Actions for operationalization of draft regulation | Priority Action (A, B or C) |
|---|---|-----------------------------|
| Use of terms and scope | <ul style="list-style-type: none"> This section will evolve as the regulatory framework evolves. Definitions should reflect internationally agreed and accepted definitions where possible. Involvement of marine jurists and linguists. | C |
| Form of applications | <ul style="list-style-type: none"> <i>Guidelines for the Preparation of a Plan of Work for Exploitation</i> need drafting, including a standard application form. Development / licensing of an online application management system. Thought to be given to “new ways of doing business” as highlighted by the Commission in the context of exploration and its impact(s) on exploitation applications. | A C A |
| Financial and technical capabilities | <ul style="list-style-type: none"> <i>Guidelines for the Preparation and Evaluation of information relating to Financial capability and Technical capability</i> to be drafted. These can reflect best practice from national regimes and detailed responses in the Stakeholder Survey. | A |
| Undertakings | <ul style="list-style-type: none"> A working paper requires preparation by an expert familiar with the international trade issues raised by Annex, Section 6(1)(b) of the Agreement and specific RRP's drafted. | C |
| Equity interest in a joint venture arrangement | <ul style="list-style-type: none"> Action plan for operationalization of the Enterprise to be developed.⁵⁷ | C |
| Feasibility study | <ul style="list-style-type: none"> <i>Guidelines for the Preparation and Evaluation (criteria) of a Feasibility study</i> to be drafted. Have any “blueprint” feasibility studies been developed for exploitation activities which can be adopted by the Authority? (To ensure consistency and comparability in applications). | A |
| Environmental impact statement | <ul style="list-style-type: none"> Draft EIS template in Technical Study No.10 to be reviewed and updated. <i>Guidelines for the Preparation and Evaluation of an Environmental Impact Statement</i> to be drafted. Should include simple rating criteria. Needs to be resource-category specific. [It is recommended that the above be undertaken by an expert and a draft template and guidelines | A |

⁵⁷ The ISA Secretariat is preparing a discussion paper on this matter for presentation to the Commission at its July 2015 meeting.

Developing a Regulatory Framework for Mineral Exploitation in the Area

| Draft regulation description | Actions for operationalization of draft regulation | Priority Action (A, B or C) |
|--|---|-----------------------------|
| | circulated for comment by interested parties]. | |
| Environmental management plan | <ul style="list-style-type: none"> • EMP template needs to be drafted. • <i>Guidelines for the Preparation and Evaluation of an Environmental management plan</i> to be drafted. • Similar to EIS, it is recommended that the above be undertaken by an expert and a draft template and guidelines circulated for comment by interested parties. • <i>Guidelines for the design and monitoring of Preservation Reference Zones and Impact Reference Zones</i> to be developed. This may require an expert working group. • Possible multi-stakeholder workshop(s) post development of EIS and EMP templates. | B |
| Social impact assessment and action plan | <ul style="list-style-type: none"> • Discussion to be advanced on a social action plan for the Area and a call to stakeholders to make contributions to this discussion. | B |
| Financing plan | <ul style="list-style-type: none"> • Template Financing plan to be drafted. | C |
| Closure plan | <ul style="list-style-type: none"> • Template closure plan and <i>Guidelines for the Preparation and Implementation of a Closure plan (including post-decommissioning surveys and monitoring)</i> to be drafted. | B |
| Size of exploitation area covered by the plan of work | <ul style="list-style-type: none"> • There are matters of policy to be addressed by the Council. Specific guidelines then need to be drawn up to identify the criteria to be applied in assessing the size and location of exploitation area(s). It is likely that additional expert input is required here and / or initial thoughts of contractors as to their proposed exploitation areas and production requirements. | B |
| Public review of the environmental impact statement and environmental management plan [and social impact assessment and closure plan] | <ul style="list-style-type: none"> • A working paper needs to be drafted setting out the public participation options and procedures available, including independent expert review(s), based on stakeholder submissions and best practice regimes. The paper can then be circulated to stakeholders for comment. | A |
| Consideration by the Legal and Technical Commission | <ul style="list-style-type: none"> • Detailed guidelines will be needed in respect of evaluation criteria to be used by the Commission. • A technical working paper needs to be drafted to elaborate on the concept of <i>sound commercial principles</i> (see 1994 Agreement, Annex, Section 6(1)(a)). • A technical working paper is required to elaborate on <i>substantial evidence</i> of risk of serious harm to the marine environment in the case of area(s) disapproved for exploitation. | B B B |

Developing a Regulatory Framework for Mineral Exploitation in the Area

| Draft regulation description | Actions for operationalization of draft regulation | Priority Action (A, B or C) |
|---|--|-----------------------------|
| Consideration and approval of plans of work for exploitation by the Council | <ul style="list-style-type: none"> Should any specific Council procedures and criteria be developed here? | B |
| Rights of the contractor | <ul style="list-style-type: none"> Consideration to be given to this by the Secretariat (clarity on rights being granted). | B |
| Obligations of the Authority | <ul style="list-style-type: none"> Consideration to be given to this by the Secretariat (clarity on Authority's obligations). | B |
| Legal title to minerals | <ul style="list-style-type: none"> Consideration of the phrase "recovery in <i>accordance</i> with the Convention" requires a technical working paper to be drafted. | B |
| Duration of contracts | <ul style="list-style-type: none"> Further understanding of contractor development and production models and plans is required here. A balance needs to be established between the commercial requirements of contractors and the ability of the Authority to amend terms and conditions in accordance with revised RRP. A working paper needs to be developed for circulation to stakeholders. Guidelines need to be developed for the following: <ul style="list-style-type: none"> Criteria for contract duration – resource specific. Application and evaluation criteria for a substantive review. Application and evaluation criteria for renewal of an exploitation contract. | A |
| Performance requirements | <ul style="list-style-type: none"> <i>Guidelines for the evaluation of Production performance requirements under a contract for exploitation</i> to be drafted. To include key performance criteria and indicators. Council to consider as a matter of policy, in discussion with relevant stakeholders, a cut-off point for commercial inactivity. | C |
| Conservation of the natural resources of the Area | <ul style="list-style-type: none"> A policy in respect of waste management needs to be developed. | C |
| Vessels operating in the Area | <ul style="list-style-type: none"> Discussions between the Authority and the International Maritime Organization to be formalized. | A |
| Protection of submarine cables and pipelines | <ul style="list-style-type: none"> Discussions between the Authority and relevant representative organizations formalized. | A |

Developing a Regulatory Framework for Mineral Exploitation in the Area

| Draft regulation | Actions for operationalization of draft regulation | Priority Action (A, B or C) |
|---|---|-----------------------------|
| Health and safety | <ul style="list-style-type: none"> To determine additional international / DSM-specific standards / development of best practice Emergency Response Plan and Procedures. <i>Guidelines on the placing of floating installations and related safety zones in the Area</i> to be developed in conjunction with IMO. | B |
| Training | <ul style="list-style-type: none"> To establish areas of skills and talent shortages key to the development of the DSM industry. | C |
| Periodic review of the implementation of the plan of work for exploitation | <ul style="list-style-type: none"> <i>Guidelines on Procedures and Information Requirements for Review</i> to be drafted. | C |
| Termination of sponsorship | <ul style="list-style-type: none"> To clarify post termination obligations for a contractor. | C |
| Responsibility and liability | <ul style="list-style-type: none"> Legal workshop required to explore and develop further principles of responsibility and liability in the Area. | C |
| Protection and preservation of the marine environment | <ul style="list-style-type: none"> This area requires the formation of targeted expert workgroups consisting of a broad range of stakeholders, including relevant international organizations. Specific areas to be identified including RRP for “dumping”. | B |
| Environmental management | <ul style="list-style-type: none"> Specific guidelines on environmental management systems to be developed together with reporting requirements. | C |
| Emergency orders | <ul style="list-style-type: none"> Secretariat to review contemporary best practice in the field of marine disaster management and responding to emergency situations including the lessons learnt. | A |
| Strategic environmental management plan | <ul style="list-style-type: none"> Regional workshops and co-operation to be developed to formulate regional SEMP. | B |
| Environmental bonds and performance guarantees | <ul style="list-style-type: none"> The interaction between commercial insurance and bond mechanisms needs to be investigated together with the terms and conditions, including appropriate quantum of any bond. | A |
| Adaptive management approach | <ul style="list-style-type: none"> Adaptive management in connection with exploitation activities in the Area requires further elaboration with interested parties. | C |

Developing a Regulatory Framework for Mineral Exploitation in the Area

| Draft regulation | Actions for operationalization of draft regulation | Priority Action (A, B or C) |
|---|---|-----------------------------|
| Seabed sustainability fund | <ul style="list-style-type: none"> A working paper to be drafted articulating the concept and objectives of such a fund for circulation to interested parties. | B |
| Confidentiality of data and information & Procedures to ensure confidentiality | <ul style="list-style-type: none"> Confidentiality is raised as a high-level issue under Section 4 to this paper. | C |
| Recommendations for the guidance of contractors | <ul style="list-style-type: none"> The process of issuing recommendations by the Commission needs review. | C |
| Inspection | <ul style="list-style-type: none"> Develop a working paper setting out a suggested structure and options, including funding, for the operation of an inspection regime. | C |
| Offences & penalties | <ul style="list-style-type: none"> Desktop review to be undertaken on existing / comparable regimes. Interaction with sponsoring State offence and penalty regime to be understood. | B |
| Settlement of disputes | <ul style="list-style-type: none"> A technical working paper needs to be prepared to set out dispute resolution options under the Convention. | C |

| Annex II Contract for exploitation | Actions for operationalization | |
|------------------------------------|--|---|
| “Dealings” or arrangements | <ul style="list-style-type: none"> Expert input required in connection with the development of RRP (under the Agreement) relating to unfair and / or uneconomic practices (in accordance with the requirements of the Agreement). See also “Undertakings” above. | C |
| Annual Reports | <ul style="list-style-type: none"> <i>Guidelines for the Preparation of Annual Reports</i> to be drafted. | C |
| Insurance | <ul style="list-style-type: none"> Discussions with contractors, the insurance industry and other stakeholders needed here to gain knowledge and understanding of insurance specifics, including limitations, exceptions and exclusions. See also “Environmental bonds and performance guarantees” above. | A |

Developing a Regulatory Framework for Mineral Exploitation in the Area

| Annex II Contract for exploitation | Actions for operationalization | |
|---|---|---|
| Suspension and termination of contract and penalties | <ul style="list-style-type: none"> Technical paper to clarify meaning of <i>serious persistent and wilful violations</i> based on existing best practice in extractive industries. | C |
| Revision | <ul style="list-style-type: none"> Technical paper to clarify meaning of <i>inequitable, impracticable and impossible</i> referenced in Annex III, Article 19 Convention. | C |

| High level issues | Actions for operationalization | Priority Action (A, B or C) |
|---|--|-----------------------------|
| Information and data – what we know, what we don’t know, what we need to know | <ul style="list-style-type: none"> It is recommended that the Authority establish a fit-for-purpose data management strategy as a matter of priority. | A |
| Risk assessment, evaluation and management | <ul style="list-style-type: none"> It is recommended that the Authority gains a better understanding of the risk profile of proposed exploitation operations through dialogue with contractors (identification of hazards and potential incident categories). | A |
| Effective protection for the marine environment from harmful effects | <ul style="list-style-type: none"> Specific criteria and guidance must be developed for concepts such as “significant adverse change” and “vulnerable marine ecosystems”. Development of a precautionary risk management framework (see Risk assessment, evaluation and management above). | B / C |
| “Internationally recognized standards” and their significance in exploitation activities | <ul style="list-style-type: none"> Standard(s) development should, primarily, be an industry-driven initiative. Authority to engage with relevant stakeholders to initiate a standard development process and framework. | B |
| Sponsoring State(s) and the Authority – a clear division of duties and responsibilities? | <ul style="list-style-type: none"> Authority to initiate dialogue with sponsoring States to discuss way forward. Develop a matrix setting out the division of duties and responsibilities. | B |
| “High-grading” of mineral deposits | <ul style="list-style-type: none"> The issue of grading policy needs further consideration with interested parties, including “typical” break-even cut-off grades and environmental policy considerations. | B |

Section 6: Making a submission

Structure of submission

Please would you kindly structure your submission as follows:

- An opening paragraph introducing you and / or your organization and your direct and / or indirect interest in activities in the Area (*Please note for those stakeholders who responded to the Authority's initial Stakeholder Survey, this is not required*).
- Your comments and / or suggestions referenced to the relevant part of this Report.
- Any other general and / or specific comments you wish to make on the development of the regulatory framework.
- A list of any supporting documents accompanying your submission, together with website links where applicable.
- Your express consent (see below) to make your personal details and submission publicly available (note: the Authority may also reference your comments against specific Sections and parts of the framework for ease of reading by all stakeholders).
- Your interest in future contact by the Authority and / or being part of a stakeholder group (*except for those stakeholders who have already expressed such an interest*).
- Your contact details clearly identified.

Closing date

The closing date for submissions is Friday, 15th May 2015 at 1800hr (EST).

Submission details

Submissions should be sent by post or electronically as follows:

Report to Stakeholders (ISBA/Cons/2015/1)
International Seabed Authority
14-20 Port Royal Street
Kingston
Jamaica

Email: consultation@isa.org.jm (format: PDF or Microsoft Word document).

Online submission publication & confidentiality

In the interests of transparency and to promote and encourage further discussion, the Authority may publish all submissions on a dedicated area of its website at <http://www.isa.org.jm/en/home>.

However, the Authority requires your express consent and approval to make submissions publicly available (i) including your name and organization as appropriate or (ii) to make your comments without disclosing any of your personal details. Please include such express consent in your submission where applicable. The default position is that your comments and personal details will be kept confidential without attribution.

Future engagement & privacy

The Authority will retain your personal contact details securely and in-confidence (except for any disclosure consented to above) with a view to contacting you solely in respect of future surveys, consultations and engagement.

Should you no longer wish the Authority to store your personal details, please advise us by sending a request to remove your contact details to the email address above.

Anonymous submissions

Please note any submissions made anonymously will be disregarded for the purposes of this Report.

