

**Fifth Meeting of the Open-ended Working Group of the Council on the financial terms
of a contract under article 13, paragraph 1 of Annex III to the United Nations
Convention on the Law of the Sea and under section 8 of the Annex to the Agreement
relating to the implementation of Part XI of the United Nations Convention on the Law
of the Sea of 10 December 1982**

18-19 July 2022, Kingston

Briefing Note

Prepared by the Chair of the Open-ended Working Group of the Council (OEWG)

I. Introduction

1. The purpose of this briefing note is to assist the participants in the upcoming fifth meeting of the Open-ended Working Group of the Council (OEWG) with a view to advancing the work on the system of payment and rates for polymetallic nodules as a priority.
2. Delegations will recall that at the fourth meeting of the OEWG in March 2022, some delegations expressed views in favour of option 4, a two stage variable ad valorem royalty and others expressed the view to keep all options for payment systems open for further consideration and negotiations to arrive at a consensus option in the future.
3. At that meeting, the OEWG agreed that I would prepare a draft text with my briefing note for the fifth meeting of the OEWG in July 2022.
4. Accordingly, I have prepared the Chair's draft text for a payment system premised on option 4, a two stage variable ad valorem royalty, which is an annex to this note.
5. At the outset, it is important to highlight that those discussions on the Chair's draft text shall not prejudice the positions of delegations who expressed support to keep all four options open for further consideration and negotiations to arrive at a consensus option in the future. All options remain on the table and the understanding is that that nothing is agreed until everything is agreed.
6. For the meeting in July 2022, I suggest that the focus is on the discussions on two main aspects:
 - (a) The Chair's text for a payment system, including revised draft regulations on the relevant parts of Part VII, revised Appendix IV and draft Standard and Guidelines (see Annex); and
 - (b) Issues concerning the calculation of the royalty basis as it relates to Mn, specifically on the question of using as a basis a mix of different Mn prices or a Mn ore price.

II. Chair's draft text

7. In light of the above, the Chair's draft text constitutes only a first draft that can be adjusted as discussions progress, including the possibility to incorporate further additions. At this stage, I consider it important to begin the discussions on the basis of the draft text with the hope that this will assist the OEWG in advancing its discussions from high-level perspectives to more granular ones in relation to actual text concerning the draft regulations.

8. The Chair's draft text harbours a multi-layer and top-down approach, progressing from general proposed changes to Part VII and Appendix IV of the draft regulations, to more specific operational issues and matters in the proposed draft standard on the calculation and determination of the royalty rates and draft guidelines in respect of the administrative and management of royalties as prescribed in regulation 65(1) of the draft regulations.

9. Thus, the structure of the Chair's draft text is composed of four enclosures:

- (a) Enclosure I: Part VII Financial terms of an exploitation contract and Part III (Regulations 27, 38 and 39), Rights and obligations of Contractors;
- (b) Enclosure II: Appendix IV, Determination of a royalty liability;
- (c) Enclosure III: Draft Standard; and
- (d) Enclosure IV: Draft Guidelines in accordance with Regulations 65 and 95 in respect of the administration and management of royalties prescribed in Part VII.

10. With regards to the proposed amendments to Part VII of the draft regulations, the Chair's draft text focuses on the regulations which inform the approach to be taken in the Standard and Guidelines and on those which require limited amendment to ensure compatibility with the broader formulation of the royalty regime. However, the entire text of Part VII is provided for the sake of clarity. Changes to the Draft Regulations (ISBA/25/C/WP.1) is provided in mark-up and placeholders are introduced for proposals which needs discussion.

11. Proposed amendments have been provided to some regulations found in Part III of the draft regulations and these are included as they are integral to the royalty regime. Even though the provisions in Part III are first in numbering, they have been placed as the final part of the text as they are only secondary to the overall understanding of the royalty mechanism in Part VII.

12. The proposed amendments to the current Appendix IV are suggested with the aim to fit with the approach proposed by the MIT modelling and high-level requirements to implement a royalty calculation mechanism for a two stage variable ad valorem approach.

13. The suggested draft Standard is proposed to detail the royalty mechanism in the amended Appendix IV, to fit with the approach reflected in the MIT modelling and detailed requirements to implement a royalty calculation mechanism for a two stage variable ad valorem approach.

14. The draft Guidelines attempt to implement regulation 65(1) which requires the issuance of Guidelines in respect of the administration and management of royalties. The draft Guidelines set out a number of key items to be considered and detailed to fit with the approach proposed by the MIT modelling.

15. Further details on the assumptions implemented in the preparation of the Chair's draft text are provided in the Introduction to Enclosures.

III. Issues related to the Mn prices for the royalty payment system

16. In my briefing note for the fourth meeting of the OEWG, I also indicated that the treatment of manganese represents a unique challenge from a valuation perspective. There is a degree of uncertainty around the product form, realised sales price relative to transparent benchmark price series, and conversion costs for the manganese contained in polymetallic nodules.

17. Consequently, I believe that it is important to also dedicate some time in July 2022 to further analyse and discuss the implications of different approaches to Mn prices and their impacts on the royalty calculation in view of the two main alternative products of Mn: either as manganese rich slag (MRS) or a mix of higher grade manganese products as is currently considered in the MIT model.

Oslo, Norway, 13 June 2022.

Annex

Draft text for the payment system, including revised draft regulations on exploitation of mineral resources in the Area

Revised draft Part VII, revised draft Appendix IV and draft Standard and Guidelines

The preparation of the Chair's draft text is based on the following assumptions:

1. Appendix IV and the associated Standard and Guidelines have been drafted to cover the royalty calculations for polymetallic nodules. There is accommodated for the possibility to incorporate the future royalty regimes for resources such as polymetallic sulphides and cobalt crusts into Appendix IV as well. However, such amendments could also be handled in additional, stand-alone, appendices.
2. For the purpose of royalty calculations, it will be necessary to point to a specified date on which Commercial Production commences for each Contractor. The Mining Workplan includes the obligation to establish an "estimated" date of commencement of Commercial Production (see Annex II, (h) of the Draft Regulations). The precise date of commencement for each Contractor will only be identified when Commercial Production in fact commences, at which time the Contractor should communicate the date of commencement of Commercial Production (by reference to the definition in the Schedule to the Draft Regulations) to the Secretary-General (who will then notify the Authority).
3. The formulation of the royalty calculation is:
$$\text{Royalty} = \text{Applicable Royalty Rate} \times \text{Aggregate Relevant Metal Value}$$
4. The Applicable Royalty Rate is based on a two stage variable ad valorem royalty system. The variable approach has been drafted as a stepped progressive rate (with increases in 1% increments) rather than incorporating a linear algorithm.
5. The Aggregate Relevant Metal Value is the value of each metal in a Shipment (which is the product of the quantity by the Average Grade multiplied by the Average Listed Price), aggregated for all Shipments during a royalty return period, and further aggregated to sum all four metals.
6. This approach which most closely reflects market conditions (and therefore emulates a profit-based system), is one where both the market prices of the metals and the royalty rates are determined on a more granular time frame (as opposed to averaging over a longer time frame). The shortest possible period, as an alternative, would be on a 'per shipment' basis, that is, with no averaging across multiple Shipments or time periods.
7. The Average Grade will be calculated per shipment:

This calculates the royalty based on the actual (sampled) metal content of each individual Shipment, based on a number of samples. This approach closely approximates the likely reality of the operations and the likely basis on which the product will be sold on a commercial basis.

For the purpose of analysing financials, the model assumes a consistent grade/content for each metal. The average composition was used and kept constant. In practice, the Contractors would need to measure actual composition for reporting and royalty calculations.

8. The Average Listed Price will be calculated per shipment.

This calculates the royalty based on the market price applicable to each individual Shipment and avoids averaging market pricing across periods or Shipments.

The model uses a single price over a 12-month period as future price forecasts do not exist on a more granular basis; and it should be noted that the model makes no reference to the time periods for calculating royalties in practice. Modelling has demonstrated that more accuracy (with respect to reflecting actual market prices) is achieved by not averaging prices over long periods of time.

In calculating the price for each Shipment, the price could be either 1) the daily price on a particular day (i.e. the day loading commences), or 2) the average price reported for that month (or some other period). The second approach is similar to that used in the pricing of bulk commodities in commercial contracts, and therefore would approximate the likely basis on which the product will be sold on a commercial basis. The current draft therefore follows the latter approach.

9. The Average Listed Price will be calculated according to an appropriate index determined in the Guidelines. The proposed Guidelines specify the appropriate index for each metal. The Guidelines also provide for a determination to be made by the Authority or Council (as determined during the negotiations) as to a new index, should the current one cease to be published.
10. The drafting does not yet address the question of whether, and where, the reference should be to Minerals, or to mineral-bearing ore. The current Draft Regulations refer to both.
11. Furthermore, consideration also needs to be given to appropriate definitions of 'wet metric tons' and 'dry metric tons' to ensure all Contractors have a similar understanding of what these mean in the context of nodules.

Enclosure I

Part VII Financial terms of an exploitation contract

Section 1 General

Regulation 62 Equality of treatment

The Council shall, based on the recommendations of the Commission, apply the provisions of this Part in a uniform and non-discriminatory manner, and shall ensure equality of financial treatment and comparable financial obligations for Contractors.

Regulation 63 Incentives

1. The Council may, taking into account the recommendations of the Commission, provide for incentives, including financial incentives, on a uniform and non-discriminatory basis, to Contractors to further the objectives set out in article 13 (1) of annex III to the Convention.
2. Furthermore, the Council may provide incentives, including financial incentives, to those Contractors entering into joint arrangements with the Enterprise under article 11 of annex III to the Convention, and developing States or their nationals, to stimulate the transfer of technology thereto and to train the personnel of the Authority and of developing States.
3. The Council shall ensure that, as a result of the incentives provided to Contractors under paragraphs 1 and 2 above, Contractors are not subsidized so as to be given an artificial competitive advantage with respect to land-based miners.

Section 2 Liability for and determination of royalty

Regulation 64 Contractor shall pay royalty

1. A Contractor, from the date of commencement of Commercial Production, shall pay a royalty in respect of the mineral-bearing ore sold or removed without sale from the Contract Area as determined in appendix IV to these regulations.

2. The date of commencement of Commercial Production, will be the date notified according to Regulation 27(2).

Explanation and comments

For the purpose of royalty calculations, it will be necessary to point to a specified date on which Commercial Production commenced for each Contractor. Pursuant to Regulation 27(2), the Contractor must notify the Secretary-General of the date of commencement of Commercial Production. The Secretary-General will then notify the members of the Authority.

The Mining Workplan includes the obligation to establish an “estimated” date of commencement of Commercial Production (Annex II, (h)). The precise date of commencement will only be identified when Commercial Production in fact commences.

Therefore, I recommend including the proposed Regulation 64(2), which clarifies the connection between the royalty payment obligation under Regulation 64(1); and the obligation on the Contractor under Regulation 27(2) to communicate the date of commencement of Commercial Production to the Authority.

**Regulation 65
Secretary-General may issue Guidelines**

1. The Secretary-General may, from time to time, issue Guidelines in accordance with regulation 95 in respect of the administration and management of royalties prescribed in this Part.
2. The Secretary-General shall consider all requests for the clarification of any Guidelines issued under paragraph 1 above, or on any other matter connected with the administration and management of a royalty and its payment.

**Section 3
Royalty returns and payment of royalty****Regulation 66
Form of royalty returns**

A royalty return lodged with the Secretary-General shall be in the form prescribed by the Guidelines and signed by the Contractor’s designated official.

**Regulation 67
Royalty return period**

A royalty return period for the purposes of this Part is a half-year return period, from:

- (a) 1 January to 30 June; and
- (b) 1 July to 31 December.

Explanation and comments

Regulation 67 sets the “royalty return period” as a half-year return period. This is separate to the obligation for annual reporting, contained in Regulations 38 and 71(3).

Neither the Regulations on the royalty reporting period, nor the Regulations on the annual report are determinative of the point at which inputs will be based/calculated.

On that basis and given that there are reasonably extensive obligations around the six-monthly royalty report and payment in the Regulations, I believe there is merit in maintaining the semi-annual royalty return period.

Regulation 68
Lodging of royalty returns

1. A Contractor shall lodge with the Secretary-General a royalty return for each Mining Area not later than 90 Days after the end of the royalty return period in which the date of commencement of Commercial Production occurs, and thereafter not later than 90 Days after the end of each subsequent royalty return period for the duration of the exploitation contract.
2. In connection with any joint venture arrangement or a consortium of Contractors, one royalty return shall be submitted by the joint venture or consortium.
3. A royalty return may be lodged electronically.

Regulation 69
Error or mistake in royalty return

A Contractor shall notify the Secretary-General promptly of any error in calculation or mistake of fact in connection with a royalty return or payment of a royalty.

Regulation 70
Payment of royalty shown by royalty return

1. A Contractor shall pay the royalty due for a royalty return period on the Day the royalty return is required to be lodged.
2. Payments to the Authority may be made in United States dollars or other foreign currency which is freely convertible.
3. All payments made to the Authority shall be made gross and shall be free of any deductions, transmission fees, levies or other charges.
4. The Council may approve the payment of any royalty due by way of instalment where special circumstances exist that justify payment by instalment.

Regulation 71
Information to be submitted

1. A royalty return shall include the following information for each royalty return period, in accordance with the Standard and taking into account the Guidelines:
 - (a) The quantity in ~~wet metric tons~~ dry metric tons of mineral-bearing ore recovered from each Mining Area;
 - (b) The quantity and value by Mineral in ~~wet metric tons~~ dry metric tons of the mineral-bearing ore shipped from the Mining Area;

(c) The value and the basis of the valuation (by Mineral) of the mineral-bearing ore sold or removed without sale from the Mining Area, as verified by a suitably qualified person and supported by a representative chemical analysis of the ore by a certified laboratory;

(d) Details of all contracts and sale or exchange agreements relating to the mineral-bearing ore sold or removed without sale from the Contract Area; and

(e) A calculation of the royalty payable in accordance with section 3, including any adjustment made to the prior royalty return period and a declaration signed by a designated official of the Contractor that the royalty return is accurate and correct.

2. In respect of a final royalty return period ending on the date of expiry, surrender or termination of the exploitation contract, the Contractor shall provide:

(a) A final calculation of the royalty payable;

(b) Details of any refund or overpayment of royalty claimed; and

(c) The quantity and value (by Mineral) of all closing stocks of the mineral-bearing ore.

3. Within 90 Days from the end of a Calendar Year, the Contractor shall provide the Secretary-General and the sponsoring State or States with a statement from an auditor or certified independent accountant that the royalty calculation for that Calendar Year:

(a) Is based on proper accounts and records properly kept and is in agreement with those accounts and records; and

(b) Complies with these regulations and is accurate and correct.

Explanation and comments

Regulation 71 originally required reporting of wet metric tons (WMT). The modelling assumes reporting and assays are done on the basis of dry metric tons (DMT). It refers to 'dewatered' nodule ore. The suggested mark-up in paragraphs (1)(a) and (b) of Regulation 71 is intended to reflect that thinking.

If the reference to WMT in the Draft Regulations will not be changed to DMT, then the Guidelines may need to address:

- (1) appropriate definitions of 'wet metric tons' and 'dry metric tons' to clarify on what the definitions means in the context of nodules, and
- (2) a mechanism for converting calculations in WMT to DMT.

Regulation 71 also refers to sale or removal without sale from the Mining Area. For accuracy and consistency, weighing and sampling should take place at the same Valuation Point (as defined in Appendix IV) irrespective of whether there is a sale.

Reference is made to "the value of the ore" in (1)(c) and (2)(c) of Regulation 71. It is suggested adding clarity that valuations of ore are all by "Mineral", to avoid potential loopholes and contractors arguing a distinction between ore and Mineral valuations. The Guidelines should break this down even further and require distinctions by Metal.

Regulation 72

Authority may request additional information

The Secretary-General may, by notice to a Contractor who has lodged a royalty return, request the Contractor to provide, by the date stated in the notice, information to support the matters stated in the royalty return.

Regulation 73

Overpayment of royalty

1. Where a royalty return shows any overpayment of royalties, a Contractor may apply to the Secretary-General to request a refund of any such overpayment.
2. Where no such request is received by the Secretary-General within 90 Days of the due date of submission of the relevant royalty return, the Authority shall carry forward any overpayment and credit it against a future royalty amount payable under this Part.
3. Any request to reduce a royalty-related amount payable by a Contractor must be made within five years after the Day the relevant royalty return was lodged with the Authority.
4. Where any final royalty return shows an amount to be refunded, the Secretary-General shall refund such amount provided he or she determines that such refund is properly due. The Secretary-General may request, and the Contractor shall provide, such additional information or confirmation, as he or she considers necessary to determine that such refund is correct and due to a Contractor.

Section 4

Records, inspection and audit

Regulation 74

Proper books and records to be kept

1. A Contractor shall keep and maintain, at a place agreed by the Contractor and the Secretary-General, complete and accurate records relating to the Minerals recovered in order to verify and support all returns or any other accounting or financial reports required by the Authority in relation to Exploitation.
2. The Contractor shall prepare such records in conformity with internationally accepted accounting principles that verify, in connection with each Mining Area, inter alia:
 - (a) Details of the quantity and grade of the Minerals recovered from each Mining Area;
 - (b) Details of sales, shipments, transfers, exchanges and other disposals of the Minerals from the Mining Area, including the time, destination, value and basis of valuation and the quantity and grade of each sale, shipment, transfer, exchange or other disposal;
 - (c) Details of all eligible capital expenditure and liabilities by category of expenditure and liability incurred in each Mining Area; and

- (d) Details of all revenues and operating costs.
- 3. A Contractor shall supply and file such records at such times as may be required by the Authority under these regulations and within 60 Days of the receipt of any such request from the Secretary-General.
- 4. A Contractor shall maintain all records and make such records available for inspection and audit under regulation 75.

Explanation and comments

This Regulation refers to Minerals recovered from the Mining Area, as opposed to mineral-bearing ore recovered. I suggest including additional detailed requirements in the Guidelines to also refer to “mineral-bearing ore” and “Metals”, given that it is for record keeping purposes. This will aid auditing and analysis. It seems particularly appropriate given the level of detail of this Regulation (i.e. with respect to operating costs, and with respect to transfers and disposals).

Additionally, these Regulations require Contractors to keep records of quantity and grade of Minerals recovered from the Mining Area, and the details of shipments from the Mining Area. This supports the formulation of a royalty based on weight and sampling at a Valuation Point, and calculation of the royalty based on weight and assays per shipment, as drafted here.

Regulation 75
Audit and inspection by the Authority

- 1. The Secretary-General may audit the Contractor’s records.
- 2. Any such audit shall be undertaken at the Authority’s sole cost and shall be performed by an Inspector in accordance with Part XI of these regulations.
- 3. An Inspector may, in connection with a liability for a royalty payment:
 - (a) Inspect the mining and on-board processing facility with a view to verifying the accuracy of the equipment measuring the quantity of Mineral ore sold or removed without sale from the Contract Area;
 - (b) Inspect, audit and examine any documents, papers, records and data available at the Contractor’s offices or on-board any mining vessel or Installation;
 - (c) Require any duly authorized representative of the Contractor to answer any questions in connection with the inspection; and
 - (d) Make and retain copies or extracts of any documents or records relevant to the subject matter of the inspection and provide a Contractor with a list of such copies or extracts.
- 4. The Contractor shall make available to an Inspector such financial records and information contemplated as reasonably required by the Secretary-General to determine compliance with this Part.
- 5. Members of the Authority, in particular a sponsoring State or States, shall, to the best of their abilities, cooperate with and assist the Secretary-General and any Inspector in the carrying out of any audit under this regulation, and shall

facilitate access to the records of a Contractor by an Inspector and assist in the exchange of information relevant to a Contractor's obligations under this Part.

Explanation and comments

As mentioned in the Drafting Note to Regulation 74, this Regulation also refers to Minerals recovered from the Mining Area, as opposed to mineral-bearing ore recovered. It is recommend including additional detailed requirements in the Guidelines to also refer to "mineral-bearing ore" and "Metals"

(See also Drafting Note in relation to Regulation 74).

This Regulation as drafted suggests the possibility of some assaying of samples on-board the harvesting and/or transfer vessel. While the Valuation Point is the point that might be used as the weighing and sampling point, it is possible that detailed assaying of the samples is likely to take place at onshore facilities, and the grade will then be attributed retrospectively to the Valuation Point for the purpose of calculating the royalty on that shipment. It is therefore important to prescribe the appropriate parameters for independent assaying in the Guidelines.

Regulation 76

Assessment by the Authority

1. Where the Secretary-General determines, following any audit under this Part, or by otherwise becoming aware that any royalty return is not accurate and correct in accordance with this Part, the Secretary-General may, by written notice to a Contractor, request any additional information that the Secretary-General considers reasonable in the circumstances, including the report of an auditor.
2. A Contractor shall provide such information requested by the Secretary-General within 60 Days of the date of such request, together with any further information the Contractor requires the Secretary-General to take into consideration.
3. The Secretary-General may, within 60 Days of the expiry of the period prescribed in paragraph 2 above, and after giving due consideration to any information submitted under paragraph 2, make an assessment of any royalty liability that the Secretary-General considers ought to be levied in accordance with this Part.
4. The Secretary-General shall provide the Contractor with written notice of any proposed assessment under paragraph 3 above. The Contractor may make written representations to the Secretary-General within 60 Days of the date of such written notice. The Secretary-General shall consider such representations and shall confirm or revise the assessment made under paragraph 3 above.
5. The Contractor shall pay any such royalty liability within 30 Days of the date of the determination made by the Secretary-General under paragraph 4.
6. Except in cases of fraud or negligence, no assessment may be made under this regulation after the expiration of 6 years from the date on which the relevant royalty return is lodged.

Section 5

Anti-avoidance measures

Regulation 77

General anti-avoidance rule

1. Where the Secretary-General reasonably considers that a Contractor has entered into any scheme, arrangement or understanding or has undertaken any steps which, directly or indirectly:

(a) Result in the avoidance, postponement or reduction of a liability for payment of a royalty under this Part;

(b) Have not been carried out for bona fide commercial purposes; or

(c) Have been carried out solely or mainly for the purposes of avoiding, postponing or reducing a liability for payment of a royalty; then the Secretary-General shall determine the liability for a royalty as if the avoidance, postponement or reduction of such liability had not been carried out by the Contractor and in accordance with this Part.

2. The Secretary-General shall provide the Contractor with written notice of any proposed determination under paragraph 1 above. The Contractor may make written representations to the Secretary-General within 60 Days of the date of such written notice. The Secretary-General shall consider such representations and shall determine the liability for a royalty for the original or revised amount.

3. The Contractor shall pay any such royalty liability within 30 Days of the date of the determination made by the Secretary-General under paragraph 2.

Regulation 78

Arm's-length adjustments

1. For the purposes of this regulation:

(a) "Arm's length", in relation to contracts and transactions, means contracts and transactions that are entered into freely and independently by parties that are not related parties; and

(b) "Arm's-length value", in relation to costs, prices and revenues, means the value that a willing buyer and willing seller, who are not related parties, would agree is fair under the circumstances.

2. Where, for the purposes of calculating any amounts due under this Part VII or any associated Standard or Guidelines, any costs, prices and revenues have not been charged or determined on an arm's-length basis, pursuant to a contract or transaction between a Contractor and a related party, the Secretary-General may adjust the value of such costs, prices and revenues to reflect an arm's-length value in accordance with internationally accepted principles.

3. The Secretary-General shall provide the Contractor with written notice of any proposed adjustment under paragraph 2 above. The Contractor may make written representations to the Secretary-General within 60 Days of the date of such written notice.

Section 6

Interest and penalties

Regulation 79

Interest on unpaid royalty

Where any royalty or other amount levied under this Part remains unpaid after the date it becomes due and payable, a Contractor shall, in addition to the amount due and payable, pay interest on the amount outstanding, beginning on the date the amount became due and payable, at an annual rate calculated by adding 5 per cent to the special drawing rights interest rate prevailing on the date the amount became due and payable.

Regulation 80

Monetary penalties

Subject to regulation 103 (6), the Council may impose a monetary penalty in respect of a violation under this Part.

Section 7

Review of payment mechanism

Regulation 81

Review of system of payments

1. The system of payments adopted under these regulations and pursuant to paragraph 1 (c) of section 8 of the annex to the Agreement shall be reviewed by the Council five years from the first date of commencement of Commercial Production in the Area and at intervals thereafter as determined by the Council, taking into account the level of maturity and development of Exploitation activities in the Area.

2. The Council, based on the recommendations of the Commission, and in consultation with Contractors, may revise the system of payments in the light of changing circumstances and following any review under paragraph 1 above, save that any revision shall only apply to existing exploitation contracts by agreement between the Authority and the Contractor.

Regulation 82

Review of rates of payments

1. The rates of payments under an existing system of payments shall be reviewed by the Council five years from the first date of commencement of Commercial Production in the Area and at intervals thereafter as determined by the Council, taking into account the Resource category and the level of maturity and development of Exploitation activities in the Area.

2. The Council, based on the recommendations of the Commission and in consultation with Contractors, may adjust the rates of payments in the light of such recommendations and consultation, save that any adjustment to the rates of payments may only apply to existing exploitation contracts from the end of the Second Period of Commercial Production reflected in appendix IV to these regulations.

3. Without limiting the scope of any review by the Council, a review under this regulation may include an adjustment to the Applicable Royalty Rate under appendix IV and the manner and basis of the calculation of a royalty.

Section 8

Payments to the Authority

Regulation 83

Recording in Seabed Mining Register

1. All payments made by the Contractor to the Authority under this Part are non-confidential.
2. All payments received by the Authority from Contractors shall be recorded in the Seabed Mining Register.

Other Relevant Draft Regulations in Part III

Part III

Regulation 27

Commencement of production

1. Where the requirements of regulation 25 are satisfied and the Contractor has lodged an Environmental Performance Guarantee in accordance with regulation 26, the Contractor, consistent with Good Industry Practice, shall make commercially reasonable efforts to bring the Mining Area into Commercial Production in accordance with the Plan of Work.
2. Once Commercial Production has begun, the Contractor shall promptly notify the Secretary-General of the date of commencement of Commercial Production. Upon notification, the Secretary-General shall notify members of the Authority, in particular coastal states in close proximity to the Mining Area, that Commercial Production has begun and the location of the Mining Area.

Explanation and comments

This mark-up reflects the drafting suggestion included in the Secretariat's *Collation of specific drafting suggestions by members of the Council* (ISBA/26/C/CRP.1), with additional changes to align the proposal with the existing Regulation 64.

Regulation 38

Annual report

1. A Contractor shall, within 90 Days of the end of each Calendar Year, submit an annual report to the Secretary-General, in such format as may be prescribed from time to time in the relevant Guidelines, covering its activities in the Contract Area and reporting on compliance with the terms of the exploitation contract.
2. Such annual reports shall include:
 - (a) Details of the Exploitation work carried out during the Calendar Year, including maps, charts and graphs illustrating the work that has been done and the data and results obtained, reported against the approved Plan of Work;
 - (b) The quantity and quality of the Resources recovered during the period and the volume of Minerals and metals produced, marketed and sold during the Calendar Year, reported against the Mining Workplan;
 - (c) Details of the equipment used to carry out Exploitation, and in operation at the end of the period;
 - (d) An annual financial report, in conformity with internationally accepted accounting principles and certified by a duly qualified firm of public accountants, of the actual and direct Exploitation expenditures, which are the capital expenditures and operating costs of the Contractor in carrying out the programme of activities during the Contractor's accounting year in respect of the Contract Area, together with an annual statement of the computation of payments paid or payable to the Authority, reported against the Financing Plan;

(e) Health and safety information, including details of any accidents or Incidents arising during the period and actions taken in respect of the Contractor's health and safety procedures;

(f) Details of training carried out in accordance with the Training Plan;

(g) The actual results obtained from environmental monitoring programmes, including observations, measurements, evaluations and the analysis of environmental parameters, reported against, where applicable, any criteria, technical Standards and indicators pursuant to the Environmental Management and Monitoring Plan, together with details of any response actions implemented under the plan and the actual costs of compliance with the plan;

(h) A statement that all risk management systems and procedures have been followed and remain in place, together with a report on exceptions and the results of any verification and audit undertaken internally or by independent competent persons;

(i) Evidence that insurance is maintained, including the amount of any deductibles and self-insurance, together with the details and amount of any claims made or amounts recovered from insurers during the period;

(j) Details of any changes made in connection with subcontractors engaged by the Contractor during the Calendar Year;

(k) The results of any Exploration activities, including updated data and information on the grade and quality of Resources and reserves identified in accordance with the International Seabed Authority Reporting Standard for Reporting of Mineral Exploration Results Assessments, Mineral Resources and Mineral Reserves;

(l) A statement that the Contractor's Financing Plan is adequate for the following period; and

(m) Details of any proposed modification to the Plan of Work and the reasons for such modifications.

3. Annual reports shall be published in the Seabed Mining Register, except for Confidential Information, which shall be redacted.

Explanation and comments

This Regulation has been included for reference as it reflects the requirement for the Guidelines to elaborate on the annual reporting requirement.

Regulation 39

Books, records and samples

1. A Contractor shall keep a complete and proper set of books, accounts and financial records, consistent with internationally accepted accounting principles, which must include information that fully discloses actual and direct expenditures for Exploitation, including capital expenditures and operating costs and such other information as will facilitate an effective audit of the Contractor's expenditures and costs.

2. A Contractor shall maintain maps, geological, mining and mineral analysis reports, production records, processing records, records of sales or use of Minerals, environmental data, archives and samples and any other data, information and samples connected with the Exploitation activities in accordance with the Authority’s data and information management policy.

3. ~~To the extent practical, a~~ A Contractor shall keep, in good condition, a representative portion of samples or cores, as the case may be, of the Resource category, from each sample collection period identified in the Standard and Guidelines, together with biological samples, obtained in the course of Exploitation until the termination of the exploitation contract. Samples shall be maintained taking into account the relevant Guidelines, which shall provide the option for the Contractor to maintain them itself or to have such maintenance performed on its behalf in whole or in part by a third party.

4. Upon request of the Secretary-General, the Contractor shall deliver to the Secretary-General for analysis a portion of any sample or core obtained during the course of Exploitation activities.

5. A Contractor shall, subject to reasonable notice, permit full access by the Secretary-General to the data, information and samples.

Explanation and comments

Accurate samples are integral to the correct calculation of royalties. The collection and storage of samples will be essential to accountability, royalty calculation, and auditing. Removing the words “to the extent practicable” will allow for a stronger obligation, commensurate with the level of obligation ascribed to the keeping of other records (the other record keeping obligations are not qualified by the inclusion of the words “to the extent practicable”).

The Regulation as currently drafted references the Guidelines for the purposes of detailing storage requirements for the samples; however, it should also link to the draft Guidelines in the present Chair’s text for the purposes of how many samples should be collected, how often they should be collected, at what points/times during the loading of a Shipment samples should be collected, and other relevant matters.

Enclosure II

Revisions to Appendix IV

Determination of a royalty liability

Appendix IV sets out the methodology for the calculation of a royalty payable under Regulation 64 in respect of the categories of resources. It is indicative and presented for discussion only at this time.

Several updates have been made since the last version of Appendix IV. Therefore, I have replaced the Appendix in its entirety.

In the present appendix:

Aggregate Relevant Metal Value means the aggregate of the Relevant Metal Values for each Relevant Metal calculated in accordance with the Standard.

Applicable Royalty Rate means the royalty rate set out in the Standard, which may be by a decision of the Council following any review under these regulations.

Average Listed Price means the average listed price for a Relevant Metal, calculated in accordance with the Standard.

Average Grade means the average metal content of the Relevant Metal calculated in accordance with the Standard.

Relevant Metal means a metal contained in the mineral-bearing ore identified and determined accordance with the Standard.

Relevant Metal Value(s) means the gross market value(s) of a Relevant Metal calculated in accordance with the Standard.

Valuation Point is the first point of transfer of the mineral-bearing ore by delivery onto a vessel transporting the ore out of the Contract Area.

Explanation and comments

In relation to the Valuation Point, further specificity may be required in the Guidelines to clarify as to when, during the transferring process, weighing and sampling may take place, given that it is likely to be a continuous process over hours, or days, to load a single shipment onto the transport vessel.

1. The Authority shall set a royalty rate

The Authority shall set an Applicable Royalty Rate in respect of the royalty to be paid by the Contractor to the Authority for Minerals which constitute polymetallic nodules, as set out in the Standard and taking into account the Guidelines.

Explanation and comments

Regulation 64 prescribes that a royalty will be paid by the Contractor. This paragraph 1 now establishes who will set and collect the royalty, and how it will be calculated. The paragraph only concerns polymetallic nodules. To maintain long term adaptability, it directs the details to the Standard and Guidelines.

2. Calculation of royalty payable

The royalty payable to the Authority for each royalty return period shall be the product of the Applicable Royalty Rate multiplied by the Aggregate Relevant Metal Value for that royalty return period, calculated in accordance with the Standard and taking into account the Guidelines.

Explanation and comments

Regulation 64 prescribes that a royalty will be paid; paragraph 1 of Appendix IV above states that the rate will be set by the Authority. This paragraph 2 establishes how the royalty payment will be calculated.

To maintain long term adaptability, it directs the details to the Standard and Guidelines.

Enclosure III Draft Standard

In the present Standard:

First Period of Commercial Production means a period of 5 years following the date of commencement of Commercial Production.

Explanation and comments

For administrative purposes it should be considered whether it would be preferable if the First Period of Commercial Production was to end at the end of a royalty return period.

Listed Price means:

1. For copper, nickel and cobalt: the price (in United States dollars), quoted for the Relevant Metal in the Official Listing relating to that Relevant Metal for the relevant period.

2. For manganese: the result of the following calculation:

$$(0.1 \times \text{EMM Price}) + (0.4 \times \text{LC FeMn Price}) + (0.4 \times \text{MC FeMn Price}) + (0.1 \times \text{HC FeMn Price})$$

where:

(a)EMM Price means the price (in United States dollars), quoted for electrolytic manganese metal in the applicable Official Listing for the relevant period;

(b)LC FeMn Price means the price (in United States dollars), quoted for low-carbon ferromanganese in the applicable Official Listing for the relevant period;

(c) MC FeMn Price means the price (in United States dollars), quoted for medium-carbon ferromanganese in the applicable Official Listing for the relevant period; and

(d)HC FeMn Price means the price (in United States dollars), quoted for high-carbon ferromanganese in the applicable Official Listing for the relevant period.

Explanation and comments

Once the relevant indices have been settled, the applicable units for each quotation should be confirmed. It should also be confirmed that the relevant indices do in fact quote the prices for the relevant periods that are reflected by the draft Standard and Guidelines.

Official Listing means the quoted or published price of the Relevant Metals as specified for each Relevant Metal in the Guidelines.

Explanation and comments

The reference to the Guidelines is to provide greater flexibility for future changes. The Guidelines also provide for a determination to be made by the Authority or Council (as determined during the negotiations) as to a new index, should the current one cease to be published.

Second Period of Commercial Production means the period commencing on the day following the last day of the First Period of Commercial Production.

Shipment means each shipment of mineral-bearing ore by a vessel transporting the ore out of the Contract Area.

1. Relevant Metals

For the purpose of polymetallic nodules and appendix IV, Relevant Metals will be copper, nickel, cobalt and manganese.

2. Calculation of Average Grade

1. In respect of each Relevant Metal, the Average Grade shall be the metal content of that Relevant Metal expressed as a percentage per dry metric ton of mineral-bearing ore in a Shipment.
2. The metal content of each Relevant Metal shall be determined based on samples of the mineral-bearing ore collected at the Valuation Point in accordance with the sampling and assaying procedures set out in the Guidelines.

Explanation and comments

This provides for the royalty to be calculated based on the actual (sampled) metal content of each individual Shipment based on a number of samples taken at the Valuation Point during the loading of the transport vessel. This approach approximates the reality of the operations and the likely basis on which the product will be sold on a commercial basis.

The MIT model assumed a consistent grade / content for each metal due to the fact that, for the purposes of analysing financials, MIT used the average composition and kept this constant. However, in practice the Contractors would need to measure actual composition for reporting and royalty calculations.

3. Calculation of Average Listed Price

The Average Listed Price for a Relevant Metal shall be the Listed Price for the Relevant Metal for the month during which loading of that Shipment commenced.

Explanation and comments

This calculates the royalty based on the market price applicable to each individual Shipment and avoids averaging market pricing across periods or Shipments. In calculating the price for each Shipment, it is preliminarily proposed that the average price is reported for that month (or some other period, if the OEWG agrees), on the basis that this approach is similar to that used in the pricing of bulk commodities in commercial contracts (i.e. the 'quotational period').

The model uses a single price over a 12-month period because future price forecasts don't exist on a more granular basis; and it should be noted that the model makes no reference to the time periods for calculating royalties in practice. MIT's modelling has demonstrated that more accuracy (with respect to reflect actual market prices) is achieved by not averaging prices over long periods of time.

4. Calculation of Relevant Metal Value and Aggregate Relevant Metal Value

1. The value of the mineral-bearing ore for a royalty return period shall be the Aggregate Relevant Metal Value for that period.
2. The Aggregate Relevant Metal Value for a royalty return period shall be the aggregate of the Relevant Metal Values for each of the Relevant Metals for that period.

3. The Relevant Metal Value for each Relevant Metal during the royalty return period shall be calculated as follows:

(a) For each Shipment:

Quantity x Average Grade of the Relevant Metal x Average Listed Price for the Relevant Metal

(b) For the royalty return period:

the aggregate of the Relevant Metal Values for each Shipment [which commenced loading] in the royalty return period

Where:

(i) Quantity means the quantity (in dry metric tons) of the mineral-bearing ore in each Shipment [which commenced loading] in a royalty return period and calculated in the light of the applicable Guidelines.

(ii) Average Grade is calculated in accordance with this Standard and in the light of the applicable Guidelines.

(iii) Average Listed Price is calculated in accordance with this Standard and in the light of the applicable Guidelines.

5. Determination of the Applicable Royalty Rate

The Applicable Royalty Rate shall be:

Two-stage variable ad valorem

1. For the First Period of Commercial Production, [2%]; and
2. For the Second Period of Commercial Production, a rate no less than [5%] and no greater than [9%] determined by reference to the table below and the Notional Relevant Metal Value:

Where:

(a) Notional Relevant Metal Value means the [average Aggregate Relevant Metal Value per dry metric ton across all Shipments during the royalty return period].

(b) The [average Aggregate Relevant Metal Value per dry metric ton across all Shipments during the royalty return period] shall be calculated by dividing the Aggregate Relevant Metal Value for that royalty return period by the total Quantity shipped during that royalty return period.

Notional Relevant Metal Value <i>[(as may be adjusted in accordance with the Guidelines)]</i>	Applicable Royalty Rate for Second Period of Commercial Production
Less than US\$850 per dry metric ton (x < US\$850/t)	[5%]

Greater than or equal to US\$850 per dry metric ton but less than US\$925 per dry metric ton (US\$850/t ≤ x < US\$925/t)	[6%]
Greater than or equal to US\$925 per dry metric ton but less than US\$1,000 per dry metric ton (US\$925/t ≤ x < US\$1,000/t)	[7%]
Greater than or equal to US\$1,000 per dry metric ton and less than US\$1,075 per dry metric ton (US\$1,000/t ≤ x < US\$1,075/t)	[8%]
Greater than or equal to US\$1,075 per dry metric ton (US\$1,075/t ≤ x)	[9%]

Explanation and comments

The variables provided are placeholders and are up for discussion.

The drafting here provides for the variable rate to be set based on the average market price per DMT for all Shipments during the 6-month royalty return period. Although the MIT model uses an annual price so that the rate is constant over the year and does not change for each Shipment, this was because the model was not intended to address the royalty calculation periods. In practice, applying this formulation, the rate will be re-calculated every six months to reflect market prices over that period.

Reflection should be given to the issue as to whether the Guidelines should address inflationary (or other applicable) increases to the Notional Relevant Metal Value amounts specified in the table. Alternatively, another approach may be to simply amend the table in this Standard from time to time to reflect appropriate price increases in the future.

Enclosure IV

Draft Guidelines in accordance with Regulations 65 and 95 in respect of the administration and management of royalties prescribed in Part VII

Official Listings

1. Official Listing in respect of copper means [appropriate reference to be determined].
2. Official Listing in respect of nickel means [appropriate reference to be determined].
3. Official Listing in respect of cobalt means [appropriate reference to be determined].
4. Official Listing in respect of manganese:
 - (a) in respect of [electrolytic manganese metal] means [appropriate reference to be determined];
 - (b) in respect of [low-carbon ferromanganese] means [appropriate reference to be determined];
 - (c) in respect of [medium-carbon ferromanganese] means [appropriate reference to be determined]; and
 - (d) in respect of [high-carbon ferromanganese] means [appropriate reference to be determined].

Explanation and comments

This definition could be moved directly into the Standard if preferred. It has been included here to provide greater flexibility for future changes.

As identified in the past, manganese presents a challenge. There is currently no accepted market index price because the manganese product, form and value relative to reference prices remain highly uncertain. The calculation will therefore be an amalgamation of 4 different index prices.

Replacement of Official Listing

If:

1. any of the indices or publications listed as an Official Listing ceases to be published or determinable for a period of [one month] and there are reasonable grounds on which to conclude that the index or publication will continue not to be published on a consistent basis in future; or
2. any of the indices or publications listed as an Official Listing does not, in the opinion of the [Council] fairly and reasonably, whether due to persistent errors or omissions, a change in its methodology or for any other reason, reflect the fair market price of the Relevant Metal,

then the [Council] may determine a replacement Official Listing for the Relevant Metal, which shall be:

- (a) the price for the Relevant Metal quoted on a recognized international mineral exchange or market;
- (b) the published price for the Relevant Metal in a publication recognized for quoting or publishing prices of metals in an international market; or

- (c) based on recommendations of the Commission [and following consultation with Contractors], a formula determined by the Council.

Worked example of royalty calculation

The following provides a worked example of the calculation of the royalty in accordance with regulation 64, appendix IV, the applicable Standard and these applicable Guidelines. This is for illustrative purposes only.

Explanation and comments

To be considered whether the worked example should be retained in the Guidelines.

The example may need to be updated and refined as changes are made to the proposed drafting, and if required, more detail could be added. For example, it could be demonstrated changes to the Average Grade rather than the consistency shown in the example below, and adjust Shipment sizes and frequency to more closely emulate a typical nodule mining operation.

1. Calculation of royalty payable (see Appendix IV)

Applicable Royalty Rate multiplied by the Aggregate Relevant Metal Value
 = 2% x US\$1,591,760,000 = US\$31,835,200 (First Period of Commercial Production)

Or

= 8% x US\$1,591,760,000 = US\$127,340,800 (Second Period of Commercial Production, if two stage variable ad valorem)

2. Applicable Royalty Rate (see Standard)

If during First Period: 2%

If during Second Period: 8% (two stage variable ad valorem)

where 8% based is on a Notional Relevant Metal Value of US\$1,061/t (as per table in Standard)

Notional Relevant Metal Value

= Aggregate Relevant Metal Value / total Quantity
 = US\$1,591,760,000 / 1,500,000DMT
 = US\$1,061 per ton

3. Aggregate Relevant Metal Value (see Standard)

Aggregate Relevant Metal Value = the aggregate of the Relevant Metal Value for each Relevant Metal during the royalty return period

= Relevant Metal Value for copper + Relevant Metal Value for nickel + Relevant Metal Value for cobalt + Relevant Metal Value for manganese

= US\$180,400,000 + US\$469,300,000 + US\$185,200,000 + US\$756,860,000

= US\$1,591,760,000

Relevant Metal Value for Copper:

1. For each Shipment of copper:

Quantity x Average Grade of the Relevant Metal x Average Listed Price for the Relevant Metal

2. For the royalty return period:

the aggregate of the Relevant Metal Values for each Shipment which commenced loading in the royalty return period

3. Therefore, assuming 3 Shipments:

	Quantity (DMT)	Average Grade (%)	Average Listed Price (US\$/t)	Relevant Metal Value (US\$)
Shipment 1	450000	1.10%	9500	47025000
Shipment 2	500000	1.10%	10500	57750000
Shipment 3	550000	1.10%	12500	75625000
Aggregate for royalty return period				180400000

Relevant Metal Value for Nickel:

1. For each Shipment of nickel:

Quantity x Average Grade of the Relevant Metal x Average Listed Price for the Relevant Metal

2. For the royalty return period:

the aggregate of the Relevant Metal Values for each Shipment which commenced loading in the royalty return period

3. Therefore, assuming 3 Shipments:

	Quantity (DMT)	Average Grade (%)	Average Listed Price (US\$/t)	Relevant Metal Value (US\$)
Shipment 1	450000	1.30%	22000	128700000
Shipment 2	500000	1.30%	26000	169000000
Shipment 3	550000	1.30%	24000	171600000
Aggregate for royalty return period				469300000

Relevant Metal Value for Cobalt:

1. For each Shipment of cobalt:

Quantity x Average Grade of the Relevant Metal x Average Listed Price for the Relevant Metal

2. For the royalty return period:

the aggregate of the Relevant Metal Values for each Shipment which commenced loading in the royalty return period

3. Therefore, assuming 3 Shipments:

	Quantity (DMT)	Average Grade (%)	Average Listed Price (US\$/t)	Relevant Metal Value (US\$)
Shipment 1	450000	0.20%	55000	49500000
Shipment 2	500000	0.20%	62000	62000000
Shipment 3	550000	0.20%	67000	73700000
Aggregate for royalty return period				185200000

Relevant Metal Value for Manganese:

1. For each Shipment of manganese:

Quantity x Average Grade of the Relevant Metal x Average Listed Price for the Relevant Metal

2. For the royalty return period:

the aggregate of the Relevant Metal Values for each Shipment which commenced loading in the royalty return period

3. Therefore, assuming 3 Shipments:

NOTE: Price based on the following:

$(0.1 \times \text{EMM Price}) + (0.4 \times \text{LC FeMn Price}) + (0.4 \times \text{MC FeMn Price}) + (0.1 \times \text{HC FeMn Price})$

	Quantity (DMT)	Average Grade (%)	Average Listed Price (US\$/t)	Relevant Metal Value (US\$)
Shipment 1	450000	28.40%	1500	191700000
Shipment 2	500000	28.40%	2000	284000000
Shipment 3	550000	28.40%	1800	281160000
Aggregate for royalty return period				756860000