

Document reviewed		
Title of the draft being reviewed:	Draft Guidelines for the preparation of environmental management and monitoring plans	
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General Comments		
<p>We are aware that these draft documents refer to draft Regulations which have not yet been finalised and, in some cases, also refer to other Standards and Guidelines which may not yet have been drafted or agreed. Following consideration of stakeholder comments, the draft Standards and Guidelines will need to be reviewed again once the relevant exploitation Regulations have been agreed, and other relevant draft Standards and Guidelines are available.</p> <p>As an example, this document will need to fully align with the final version of Annex VII of the Exploitation Regulations. Another example is that when tracking through baseline data requirements from the draft baseline Guidelines, through to what is required in the EIA, EIS and EMMP, there are currently some gaps. As the EIA, EIS and EMMP are based on data from the baseline, it will be important to check that the data required for EIA, EIS and EMMP (as laid out in Regulations, Standards and Guidelines) are consistent across these documents.</p> <p>There is currently a mix of mandatory and recommendatory text in this draft Guideline, as well as considerable explanatory text. For clarity, we recommend reworking this document into a separate Standard and a Guideline (for example, like the draft EIA Standard and Guidelines).</p>		
Specific Comments		
Page	Line	Comment
1-2	30-104	<p>We suggest that the first few sections (Introduction: Scope and Purpose, Terminology, Use of this Guideline in Context of Regulations and Other Standards or Guidelines) might be reconsidered and realigned in order to highlight the areas of greatest importance in understanding EMMPs (beyond the text already available in the Regulations). For example, key elements which could usefully be highlighted in the Introduction to the Guideline might include:</p> <ul style="list-style-type: none"> - The purpose of an EMMP: <p><i>EMMPs guide the planning for activities associated with Exploitation, including the ramp-up phase, design and construction of mining</i></p>

	<p><i>equipment, project-specific management planning, closure and post-closure monitoring. They are intended to provide effective environmental protection during all phases of the Project.</i></p> <p><i>The EMMP should detail the environmental protection measures to be implemented in the Contract Area to prevent or minimise environmental effects, including performance-based environmental requirements. This should take into account the Authority’s and sponsoring State’s regulatory approvals, regulations and standards, Best Environmental Practices, and any prescribed engineering specifications. These measures should be described in sufficient detail for a Contractor to integrate them into design, planning and working method statements. The EMMP should make a clear connection between the management measures proposed and the environmental quality objectives of the project. It should detail how the effectiveness of the management measures will be monitored, assessed and reviewed.</i></p> <p><i>The EMMP should detail a robust monitoring programme that allows the detection of serious harm, and the reaching of prior thresholds indicative that serious harm is likely or possible, if this occurs during the project duration. This should be informed by appropriate baseline data from the project region and focused on the most important impacts and effects.</i></p> <p>[It may be useful to insert here the following text up from lines 334–340]</p> <p><i>The effort and resources allocated to monitoring different parameters should be proportionate to the importance of the predicted environmental impacts and effects (subject to complying with the overall objectives and requirements in the Exploitation Regulations), the level of residual uncertainty from the EIA, and the areas of main focus for adaptive management strategies. The monitoring should reflect the sum total of predicted impacts and management strategies, with the aim of determining if the environmental objectives are being achieved.</i></p> <ul style="list-style-type: none"> - How the EMMP interacts pre and post contract with the EIA, EMS, environmental baselines and variety of other documents associated with the Plan of Work. <p><i>The EMMP is an essential part of the environmental assessment pathway that ensures the monitoring and mitigation of all significant environmental effects determined through EIA by setting out commitments and procedures on how mitigation measures will be implemented, how the effectiveness of such measures will be monitored, what the management</i></p>
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	<p><i>responses will be to the monitoring results and what reporting systems will be adopted and followed¹.</i></p> <p>Any EMMP is an iterative, live document. The Applicant will first agree an outline EMMP during the application process as the basis for development of a detailed EMMP before initiation of mining. As an example of best-practice, it may be useful to draw on a relevant industry reference such as the following²:</p> <ul style="list-style-type: none"> - <i>This outline EMMP will be developed into a detailed EMMP post consent, as follows:</i> - <i>The Applicant will agree with Regulators the outline EMMP as the basis for development of a detailed EMMP, with amendment or addition if required.</i> - <i>The Applicant will agree and appoint an advisory group for the EMMP with Regulator.</i> - <i>The advisory group on appointment will develop and agree a detailed EMMP, with detailed aims, objectives, indicators, monitoring questions as well as appropriate data collection methods for the tidal technologies deployed.</i> - <i>A schedule of tasks for development of the detailed EMMP and its implementation is described in Section 5.</i> <p><i>The EMMP is intended to be a live document from pre-consent to the end of post-closure monitoring. As such, it will serve to:</i></p> <ul style="list-style-type: none"> - <i>document environmental concerns and appropriate protection measures;</i> - <i>provide concise and clear instructions to project personnel and contractors regarding procedures for protecting the environment and minimising environmental impact;</i> - <i>provide a reference document for personnel when planning and/or conducting specific activities;</i> - <i>provide contingency plans for accidental events;</i> - <i>provide a reference to applicable legislative requirements.</i> <p>This section should also make clear that as EMMPs are public documents, draft EMMPs will be subject to public consultation (draft Exploitation Regulations, regulation 11), and EMMPs that have been agreed by the Authority as part of a Contractor’s Plan of Work and contract will be published on the Authority’s Seabed Mining Register (draft Exploitation Regulations, regulation 18(3)).</p>
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¹ ISA Draft Regulations (n.d.). International Seabed Authority, “ISBA/25/C/WP.1 - Draft Regulations on Exploitation of Mineral Resources in the Area” (ISA, 2019).

² https://dns.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/DNS/3234121/DNS-3234121-001114-14_MOR-AEC-DOC-0001_Outline%20Environmental%20Mitigation%20and%20Monitoring%20Plan.pdf

		<p>Another key point to cover in this section is the need for early-warning thresholds. EMMPs are an opportunity for an applicant to highlight their understanding of early warning thresholds and to adopt adaptive management techniques. As such, there should be understanding of thresholds beyond which a breach of contract conditions occurs as well as development of internal action thresholds to implement pre-planned environmental management procedures as a limit is approached.</p> <p>It will also be useful to flag clear reporting and review cycles within this EMMP document. Implementation of an effective EMMP, including monitoring and reporting, provides the Authority and others with assurance that the project is delivering required levels of environmental performance, and in the event of divergence from these, it is able to implement corrective actions in a timely manner.</p>
I A4 – A6	51 – 67	We note that the understanding of Environmental Effects is set out clearly here, including that the effect may be positive, negative, direct, indirect, temporary or permanent, or cumulative effect arising over time or in combination with other mining impacts. The need to understand cumulative effects should also be included throughout the rest of this Guideline.
I B	71 – 84	Bullet points in section B as currently drafted may not be required as both concepts in this section are defined in the draft exploitation Regulations, and paragraph 7 already states: ‘unless otherwise stated, terms defined in the Exploitation Regulations and UNCLOS 72 have the same meaning when used in this Guidelines’.
I C	86 – 104	<p>We recommend that this section could usefully be expanded as follows:</p> <p><i>This guideline should be used:</i></p> <p>1) <i>In conjunction with other high level Standards and guidelines, specifically:</i></p> <ul style="list-style-type: none"> • <i>Standard and / or Guideline 1: Plan of Work/Mining Work Plan (MWP)</i> • <i>Standard and / or Guideline 2: Environmental Impact Assessment (EIA) and Environmental Impact Statement (EIS);</i> • <i>Standard 3: Environmental Management and Monitoring Plan (EMMP);</i> • <i>Standard and / or Guideline 4: Environmental Management System (EMS);</i> • <i>Standard and / or Guideline 6: Safe Management and Operation of Mining Support Vessels;</i> • <i>Standard and / or Guideline 8: Baseline Data Collection;</i> • <i>Standard and / or Guideline 9: Emergency Response and Contingency Plan (ERCP);</i> • <i>Standard and / or Guideline 10: Good Industry Practice; and</i> • <i>Standard and / or Guideline 12: Safety Management System.</i>

		<p>2) <i>In conjunction with technical and environmental method statements agreed with the ISA as representing appropriate monitoring.</i></p> <p>3) <i>In conjunction with the draft Exploitation Regulations and any other relevant instruments including the Authority’s Standards and the legislation and national laws of the Sponsoring State(s). <u>[N.B if an EMMP Standard is also drafted, this should be referenced here]</u></i></p> <p>4) <i>In consultation with other guidance documents and examples that may assist in delivering Best Environmental Practice in relation to the EMMP. A non-exhaustive list of additional resources can be found in Section 5 of this guideline and in other ISA guidelines.</i></p>
II C 14	125-134	<p>We recommend that the current text could usefully be expanded as follows.</p> <p><i>An EMMP should:</i></p> <ul style="list-style-type: none"> • <i>Be objective,</i> • <i>Take a comprehensive, systemic and precautionary approach to environmental management,</i> • <i>Contain adequate detail to allow its effective implementation;</i> • <i>State any limitations that apply to the use of the information;</i> • <i>Identify uncertainties and include adaptive management strategies for managing uncertainty, where appropriate;</i> • <i>Identify strategies to identify early, and address, a circumstance where environmental objectives may not be met, and contain measures to be taken in order to respond to non-compliance;</i> • <i>Be written in a way that is easily understood and unambiguous for all parties;</i> • <i>Clearly prioritize the impacts and risks identified in the EIS according to their importance;</i> • <i>Establish specific commitments to auditable and measurable outcomes and clear timeframes;</i> • <i>Use terms ‘will’ and ‘must’, rather than ‘should’ or ‘may’ when committing to carrying out management actions, where appropriate;</i> • <i>Clearly explain technical terms and acronyms used;</i> • <i>Clearly define responsibilities and roles; and</i> • <i>Be regularly reviewed and updated in accordance with (emerging) best practices.</i> <p>NB - we acknowledge that independent verification is an important element of the EMMP as a whole - however, it may be more suitable for inclusion elsewhere, rather than in this particular list.</p>
II 15	136-148	<p>We suggest that the following bullets are added to the current text:</p> <ul style="list-style-type: none"> • <i>Aligned with the Authority’s strategic plan (ISBA/24/A/10) as well as environmental strategies, goals and objectives ;</i> • <i>Periodically updated to reflect changes in knowledge, the applied</i>

		<p><i>technology, mining patterns and related effects, including changes in monitoring technique and detection capabilities.</i></p> <p>We suggest that “Standards and [Guidelines]” is added to the third bullet point.</p>
III	150-244	<p>The draft Exploitation Regulations Annex VII (2) provides a clear structure for this section of the Guideline. We recommend that the same structure is used through the Guideline (including Appendix C) for consistency between the draft Regulations and the draft Guidelines, and for ease of understanding. We also recommend that the Guideline should go beyond a repetition of the draft Exploitation Regulations.</p> <p>We therefore suggest inclusion of:</p> <p><i>(1) a non-technical summary of the main conclusions and information provided to facilitate understanding by members of the Authority and Stakeholders (draft Exploitation Regulations (2)(a))</i></p> <p>We feel that this section should be expanded to contain a brief summary of the description of the proposed Exploitation activities, if this is not directly able to be cross-linked from the EIA or the Plan of Work documentation. The description should focus on the environmental performance characteristics of the seabed mining operation which will have been part of the basis for assessment in the EIA and will therefore need to be proven in operational practice to demonstrate that the EIA findings remain valid.</p> <p><i>(2) The environmental objectives and standards to be met (draft Exploitation Regulations Annex VII (2)(c))</i></p> <p>The EIS contains a set of proposed commitments to project-specific mitigation measures. Other obligations relating to environmental performance will also be contained in the Plan of Work, sponsoring State approval conditions, ISA Regulations and Standards, and other relevant international law, and domestic legislation (pertaining to shipping discharges, carbon emissions, for example) and these should all be described in the EMMP. Delivery of all these commitments and obligations will be secured via implementation of the EMMP, and should be enumerated here.</p> <p><i>(3) A description of the planned monitoring programme and the overall approach (draft Exploitation Regulations Annex VII (2)(g))</i></p> <p><i>(4) Details of the quality control and management standards, including the frequency of the review of the performance of the Environmental Management and Monitoring Plan (draft Exploitation Regulations</i></p>

		<p><i>Annex VII (2)(l)</i></p> <p><i>(5) A description of the technology to be deployed, in accordance with Good Industry Practice and Best Available Techniques (draft Exploitation Regulations Annex VII (2)(m))</i></p> <p><i>(6) Details of ongoing consultation with other users of the Marine Environment (draft Exploitation Regulations Annex VII (2)(p))</i></p> <p><i>(7) Details of any practicable restoration of the project area (draft Exploitation Regulations Annex VII (2)(q))</i></p> <p><i>(8) A plan for further research and studies (draft Exploitation Regulations Annex VII (2)(r))</i></p> <p><i>(9) Details of reporting requirements and timing (draft Exploitation Regulations Annex VII (2)(s))</i></p> <p>We also suggest adding here a table navigating the rest of the document and appendices, also highlighting links to other environmental management documents.</p>
III B	166-170	<p>The Project area description should include the precise location and boundaries of the proposed project, preferably on a detailed bathymetric map, along with the general location of the project on a regional map. Any known or proposed designated areas within the appropriate REMP for the Mining Area (e.g. APEIs, VMEs, EBSAs, IRZs, PRZs or other areas designated for particular purposes under REMPS, Council decisions, Regulations or Standards) should be marked. Direct and indirect impact areas should be distinguished.</p>
III D	180-196	<p>We recommend that text should be added here to clarify the need for an applicant / Contractor to note mitigation measures and control procedures for each Environmental Effect identified in the EIA process and described in the EIS.</p> <p>The EMMP should include a summary of the mitigation measures associated with the potential Environmental Effects, as noted in Annex VII (2) (f) and regulation 47 (1) (d). This section of the EMMP should be drafted to reflect how the mitigation hierarchy will continue to be applied throughout the project lifetime, in the context of aiming for continuous improvement.</p> <p>The EMMP should also contain detailed sections on how each of the management (mitigation and monitoring) strategies committed to in the EIS will be achieved by the contractor.</p>
III E 32-34	264-284	<p>We recommend that this section should include the requirement for a description of the overall approach to monitoring, as outlined in the draft</p>

		Exploitation Regulations Annex VII (2)(g).
III E 34	275	To ensure that the EMMP is focused on the environmental issues of most importance (linking the EMMP and EIA), we recommend that the first bullet could be amended as follows: “The parameters <i>required</i> to be monitored and/or sampled during an EIA/EIS to evaluate Environmental Effect and the associated monitoring actions to be taken;”
III E 34	275-284	Where appropriate, separate component plans may be valuable, as different components of the overall EMMP may require separate sets of documentation.
III E 34	275-284	This list should also include indicators and thresholds (especially associated with adaptive management techniques).
III E 34	281	We recommend deleting “necessary” from the following text: “ Necessary risk assessment and management techniques, including adaptive management techniques (process, procedure, response), if appropriate, needed to achieve the desired outcomes;” The need for including only necessary techniques could also be highlighted at a higher level within the document.
III E 35	288-294	References to other relevant Standards and Guidelines could be included here.
III E 36	298-300	We recommend that it may be useful to reconsider the content and placement of this paragraph, as the focus on non-significant effects may not need to be so prominent.
III E 36	305	It may be useful to add here a caveat/clarification along the lines of ‘ <i>while adhering to relevant Standards</i> ’.
III E 39	334-340	We recommend that this section might usefully be moved up as a high level concept at the start of the monitoring section.
III E 41 - 44	347 - 396	The list included is only a partial declaration of those things needed to be included in monitoring work. We recommend that either this list could be enlarged to provide a more prescriptive list of requirements (see below), or could be redrafted to clearly explain that it is not prescriptive. A prescriptive list could be included in an Appendix. For example, a more comprehensive text could be: <i>For each of the environment effects identified in EIA and subject to the Plan, the following must be included in the Plan, including justifications:</i> <i>Performance criteria</i> <ul style="list-style-type: none"> • <i>Key indicators that will be used to measure change to the environmental effect identified in the EIA</i> • <i>Thresholds and/or trigger points below which changes in the key indicators are deemed acceptable; an environmental condition must</i>

	<p><i>remain (e.g., habitat in a part of the site that must not be disturbed); or science-based levels which have been identified as appropriately protective for a particular environmental condition</i></p> <ul style="list-style-type: none"> • <i>Targets identified by the applicant / Contractor and / or the regulatory authority that are appropriate to assess against goals and objectives</i> <p><i>Performance criteria should be quantitative and measure to the extent possible, and qualitative where appropriate.</i></p> <p><i>Metrics</i></p> <ul style="list-style-type: none"> • <i>Metrics that will be used to measure change to the environmental effect identified in the EIA and a description of what information that particular variable will provide pertinent to a potential significant environmental effect;</i> <p><i>Collection procedures [N.B. it would be necessary to ensure this section aligns with the draft baseline and EIA Standards and Guidelines]</i></p> <ul style="list-style-type: none"> • <i>List of monitoring/sampling equipment and supplies;</i> • <i>Specifications of monitoring/sampling equipment (including calibration procedures);</i> • <i>Laboratory methods and detection limits, if applicable;</i> <p><i>Sampling methods [N.B. it would be necessary to ensure this section aligns with the draft baseline and EIA Standards and Guidelines]</i></p> <ul style="list-style-type: none"> • <i>Sampling design; statistical proof of being able to detect appropriate and agreed levels of change</i> • <i>Sampling timing and frequency;</i> • <i>Methodology for measuring the environmental parameters (equipment, instruments, laboratory analysis, etc.), including standards to be used as well as the necessary accuracy and precision of measurements (what is measured to acceptable standards);</i> • <i>Sampling locations (permanent and per survey), including those to:</i> • <i>ground-truth the modelling of the operational plume (i.e. the plume caused by disturbance of the seabed) using data created from the outputs of the plume and sedimentation models;</i> • <i>ground-truth the modelling of the 'returned water' plume;</i> • <i>measure current speed and direction to inform operational decision-making;</i> • <i>meet specific monitoring objectives relative to the Environmental Effects identified in the EIS;</i> • <i>IRZ Monitoring; and</i> • <i>PRZ Monitoring.</i> <p><i>Recording</i></p> <ul style="list-style-type: none"> • <i>Cleaning/decontamination procedures;</i> • <i>Record keeping procedures;</i> • <i>Data organization, analysis, and interpretation procedures;</i> • <i>Sharing of non-commercially sensitive data to an international data</i>
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		<p><i>repository, in accordance with the Standards and Guidelines of the Authority;</i></p> <ul style="list-style-type: none"> • <i>Proposed methods of presenting the data (e.g., maps, photographs, data tables, graphs, live data feeds) and including transferability to external databases (e.g. DeepData); and</i> • <i>A monitoring checklist specifying when the monitoring needs to be carried out, who is responsible, what methods will be used to measure effectiveness, and if follow-up action is required.</i>³ <p><i>Uncertainty</i></p> <ul style="list-style-type: none"> • <i>Provide provisions for remedial measures to be effectively implemented in the event of noncompliance (i.e. when mitigation measures are inadequate or when impacts have been underestimated in the EIS); and</i> • <i>Provide understanding of how there is flexibility to adapt to changes in scheduling, short term site conditions, and weather-dependent contingency measures.</i> <p><i>Best practice</i></p> <ul style="list-style-type: none"> • <i>Best available technology used, or, where appropriate use of certified technology in line with ISBA/23/C/5;</i> • <i>Effective stakeholder and independent expert engagement and accountability mechanisms;</i> • <i>Design elements involving ecosystem approach / ecosystem services to management;</i> • <i>Incorporation of the framework conditions set by the relevant REMPs, and results of strategic environmental assessments into an environmental management plan;</i> • <i>Due diligence regarding other marine users and uses, and adjacent coastal States;</i> • <i>Consideration of cumulative impacts; <u>[N.B. This is one example of where cumulative effects could be added in to this document, as per our comments on lines 51-67]</u></i> • <i>Incorporation of the results of ongoing consultation and research in to EMMP reviews.</i> <p><i>Corrective actions</i></p> <ul style="list-style-type: none"> • <i>Monitoring results which exceed the trigger values for corrective action;</i> • <i>Potential corrective actions; and</i> • <i>Procedures and timelines for reporting non-compliance to the relevant authority.</i>⁴ <p><i>Corporate</i></p>
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³ New South Wales Department of Infrastructure Planning & Natural Resources and Planning & Natural Resources Department of Infrastructure, *Guideline for the Preparation of Environmental Management Plans* (Sydney, NSW, Australia 2000: Department of Infrastructure, Planning and Natural Resources, 2004).

⁴ Ibid.

		<ul style="list-style-type: none"> • <i>Roles and responsibilities of the environmental management team</i> • <i>Reporting requirements</i>
III E 44	389-390	'Evaluating' plume characteristics is not the purpose of the EMMP, and would be undertaken during the EIA.
III F	398 onwards	This section should be aligned with the requirements in draft Regulation 52. It may be helpful to make clearer that these are considerations that may help an applicant/Contractor fulfil their requirements under the draft Exploitation Regulations.
III F 4(51)	449	We recommend that the text should be amended as follows: "where applicable qualitative <i>objectives</i> and standards are available"
III F 5 (52) (etc)	455	<p>We recommend that the term 'thresholds' is used instead of 'trigger points'. The concept that there may be a series of such thresholds could also be included here.</p> <p>For example, EMMPs are an opportunity for an applicant to highlight their understanding of early warning thresholds and to adopt adaptive management techniques. As such, there should be understanding of thresholds beyond which a breach of contract conditions occurs as well as development of internal action thresholds to implement pre-planned environmental management procedures as a limit is approached. Such need for early-warning thresholds could usefully be made clear in this document.</p>
III F 5(53)	453-470	Non-compliance reporting processes for the Contractor should include a record of the environmental management actions taken in attempting to avoid a breach, and a record of what and how lessons have been learned from them in the context of continuous improvement.
III F 8	504-515	<p>We recommend that change to the following text would strengthen the Guideline. This should also be included under the review section of the guideline.</p> <p><i>Non-scheduled thresholds for carrying out performance assessments include:</i></p> <ol style="list-style-type: none"> 1. <i>Following environmental incidents (e.g., an environmental 'Incident' as defined in the [draft] regulations on exploitation; or an environmental 'Notifiable Event' as described in appendix I of the [draft] regulations on exploitation;</i> 2. <i>When there is a substantive adjustment to the relevant REMP;</i> 3. <i>When relevant new or revised rules, regulations, procedures or Standards and Guidelines are issued by the Authority;</i> 4. <i>Following a validation monitoring period as outlined in section X.X; and</i> 5. <i>Periodically, for mining and/or monitoring activities undertaken over extended timeframes, (e.g., every two years for operations/closure</i>

		<i>period lasting five years or less, and every five years for operations/closure period lasting more than five years).</i>
III F 9	519-520	Currently both ‘competent persons’ and ‘Competent Persons’ are used in this sentence. If there is a difference in meaning, this should be clarified.
G	522-530	We suggest that this section could be moved to the section concerning project area. It would also be useful to reference the documents where definitions of these areas can be found.
H	532 onwards	The Mining Discharge and Waste Assessment Audit should be done as part of project design, planning and the EIA. By the time of EMMP preparation (and implementation) the opportunities to apply the stages of the waste management hierarchy (other than disposal) will have largely passed. Further opportunities to apply the hierarchy may be available during project operation but in environmental management terms this should be addressed in the context of ‘continuous improvement’. We therefore recommend that this whole section is deleted, and we further suggest that its position within Annex VII of the draft Exploitation Regulations should be reconsidered. A confirmation that the audit has occurred and remains relevant should be sufficient; plus specific objectives and plans for minimizing and managing waste. It will be important to ensure this is covered adequately in other draft Standards and Guidelines (e.g. EIA).
I	606 onwards	We suggest that details of the training programmes may sit better as a separate guideline and performance assessment, outwith the EMMP. If it were to remain here, it would need to be specifically related to training that relates to monitoring / EMMP requirements. Training requirements are not typically part of an EMMP.
K	665-679	We recommend that this section could be reconsidered and the content could usefully be implemented as part of other, relevant sections throughout the Guideline, instead of having an ‘Additional considerations’ section.
V	687-691	<p>We recommend that additional detail could usefully be added to this section.</p> <p>The EMMP should include details of the quality control and management standards, including the frequency of the audit or review of the implementation of the EMMP, as noted in the draft Exploitation Regulations Annex VII (2) (1) and regulation 52. The Contractor should conduct periodic and non-periodic performance assessments of the EMMP to assess: (a) the compliance of the mining operation with the EMMP and (b) the continued appropriateness and adequacy of the EMMP, including the management conditions and actions attached to draft Exploitation Regulations, regulation 52 (1)).</p> <p>A review should assess whether the EMMP is achieving its objectives and the requirements of any relevant approval conditions, the contract, and the rules, regulations and procedures of the Authority. A review should consider environmental monitoring records, corrective actions and the</p>

	<p>results of any prior audits. The review should also include examination of updated external information (academic literature, workshop and technical reports from the Authority or other relevant groups, environmental data from other sources - e.g. published by the Authority on DeepData). During the review process, any reasons for varying the EMMP, including its component plans, should be documented. Results of audits should confirm that identified corrective actions have been undertaken and then assess the effectiveness of such actions. Results should be used to inform future stages of the project or other projects.</p> <p>Review or audit of an EMMP should at least be undertaken at the following times:</p> <ol style="list-style-type: none"> 1. Following environmental incidents (e.g., an environmental ‘Incident’ as defined in the [draft] regulations on exploitation; or an environmental ‘Notifiable Event’ as described in appendix I of the [draft] regulations on exploitation; 2. When there is a substantive adjustment to the relevant REMP; 3. When relevant new or revised rules, regulations, procedures or Standards and Guidelines are issued by the Authority; 4. Following a period of validation monitoring; and 5. Periodically, for mining and/or monitoring activities undertaken over extended timeframes, (e.g. every two years for operations/closure period lasting five years or less, and every five years for operations/closure period lasting more than five years). <p>The EMMP should include the schedule and thresholds for auditing the implementation and effectiveness of the overarching EMMP and component plans. The timing of audits should be included in the implementation schedule in the EMMP. A procedure should be developed by the project management team for conducting EMMP audits and should include the following key components⁵:</p> <ul style="list-style-type: none"> • Establish audit procedures; • Determine the frequency of audits; • Develop processes for scheduling, reporting, and maintaining records; • Ensure that the auditors are competent, in that they must be able to undertake the audit objectively and competently. Audits may be undertaken by internal or external parties; and • Address personnel responsible for conducting the review and required
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⁵ CSIR Environmentek, “Guideline for Environmental Management Plans.”

		<p>resources.</p> <p>The Contractor should compile and submit a performance assessment report to the Authority in accordance with, and in the format set out in the EMMP (regulation 52). The Contractor is recommended to use independent competent persons to conduct its audits, and to include stakeholder consultations and opportunities for feedback and inputs from external third parties.</p>
VI B – useful links		We recommend that, for ease of updating, this section could instead be hosted on a web link and such link provided in the Guidelines.
App A		This is currently empty, so we cannot comment at this time.
App B		<p>The lists in this section currently include a number of items not previously mentioned in the Guideline (e.g. “data standards would be backward compatible”). The checklists should be consistent with the requirements of the Regulations, Standards and Guidelines.</p> <p>We suggest there could be greater consistency between the lists, whilst still reflecting some different requirements between resource types.</p> <p>We note that where the lists (e.g. items 4 and 5) are incomplete, this may be confusing for an applicant / Contractor as to expectations.</p> <p>Item 4 in the checklists for nodules and crusts, and most of item 6 in the checklist for sulphides, may be more suitable to include in the EIA, not the EMMP. We recommend considering a) adding some of this information into other relevant Standards and Guidelines and b) whether there should be Standards and Guidelines regarding IRZ/PRZs across the whole mining process.</p> <p>If these lists remain in the EMMP, we recommend further consideration where the results of this consultation round for the baseline and EIA Standards and Guidelines can be considered to apply to the EMMP lists.</p>
App C		We recommend the addition in Appendix C of requirements from draft Exploitation Regulations Annex VII (2) (d), (l) and (s).
<i>Additional rows can be added to this table by selecting “Table” followed by “insert” and “rows below”</i>		

Comments should be sent by e-mail to ola@isa.org.jm