

**TEMPLATE FOR SUBMISSION OF TEXTUAL PROPOSALS DURING THE 28<sup>TH</sup> SESSION:  
COUNCIL - PART II**

*Please fill out one form for each textual proposal which your delegation(s) wish(es) to amend, add or delete and send to [council@isa.org.jm](mailto:council@isa.org.jm).*

**1. Name of Working Group:**

Informal Working Group on the protection and preservation of the marine environment

**2. Name(s) of Delegation(s) making the proposal:**

Federal Republic of Germany

**3. Please indicate the relevant provision to which the textual proposal refers.**

Annex Xter: Design Criteria for Impact Reference Zones (IRZs) and Preservation Reference Zones (PRZs)

**Green text** is in original draft; **blue text** indicates Germany's textual proposals

**4. Kindly provide the proposed amendments to the regulation or standard or guideline in the text box below, using the "track changes" function in Microsoft Word. Please only reproduce the parts of the text that are being amended or deleted.**

**Annex [Alt. ]**

Applicants must establish suitable and effective Impact reference zones (IRZs) and Preservation reference zones (PRZs) in order to monitor the environmental impacts of their activities. The following parameters shall apply in the designation of IRZs and PRZs.

...

2. The applicant needs to demonstrate that the IRZ/PRZs are **[ecologically ]**environmentally ] similar before the commencement of mining.

...

5. **[All types] [For each type]** of impact identified in the Environmental Impact Statement, **[there] must [be at least one ]** correspond**[ing ] [with] separate** IRZ[/IRZs] which will enable the Contractor to monitor **[that] [these]** impacts. **[Designation of] [This is likely to require]** multiple IRZs **[(or a very large IRZ)] [is possible for this purpose.]**

...

8. PRZs must be areas that will not be impacted by mining activities from any contractor, including impacts from operational and discharge plumes and including during the post-closure period. PRZs must also be free **[as far as possible]** from impacts of other industrial activities. **PRZs must have to remain unimpacted throughout the mining and the post-mining monitoring periods.]**

...

12. Abiotic and biotic parameters, within the IRZ and PRZ will need to be monitored to quantify impacts. This includes but is not limited to monitoring species diversity and function. To establish an adequate baseline and to find suitable indicator species (e.g., the sensitive species that will suffer most from an impact, key-stone species that are crucial for ecosystem processes, **and or** species which abundance indicates a disrupted ecosystem functioning), it will be necessary to catalogue most species in the IRZ and PRZ in question and unravel their functions. This will require sufficient sampling effort to collect sample sizes that allow for a

meaningful comparison (i.e., with high statistical power).

13. The longevity of PRZs [and duration of post-monitoring ] [is] [are] important[. The] duration of post-mining monitoring should last until ~~[monitoring results show a trajectory towards recovery. Post mining monitoring should be described in the final EMMP and/or Closure Plan.]~~ no measurable difference between IRZ and PRZ can be detected anymore.

~~[13 Alt. Post mining monitoring shall continue until ecosystem function returns to the level of the pre-mining condition agreed within the EMMP/Closure Plan and taking into account the time taken to reach a new equilibrium state.]~~

....

16. An applicant will need to be able to demonstrate knowledge of species' ecological requirements (e.g. for successful reproduction) to estimate ecosystem functioning; an average population density alone will not suffice.

## 5. Please indicate the rationale for the proposal. [150-word limit]

- Para 2: To be useful for any meaningful comparison, IRZs and PRZs need to be ecologically (incl. zoologically) comparable, because environmental (abiotic) comparisons would not suffice.
- Para 5: The variety of mining impacts may at times be geographically overlapping, but to quantify each and to monitor recovery for each will require separate IRZs.
- Para 8: For the environmentally safe operation of any mine, it would be essential that all PRZs (incl. those of neighbouring contract areas) are sufficiently large and protected against all mining impacts beyond the lifetime of the mine itself to allow for comparison also during the post-closure phase.
- Para 12: All three types of suitable indicator species are needed for adequate baselines as they represent different features of the ecosystem.
- Para 13: Suggest deleting “monitoring results should a trajectory towards recovery ...” as that is (a) too subjective and (b) does not offer information on the temporal extent of environmental impacts, which are important to understand, not least for refining the Mining Code and REMPs.
- Para 13 Alt: Neither a return of ecosystem function nor a new equilibrium state are defined.