

**TEMPLATE FOR SUBMISSION OF TEXTUAL PROPOSALS DURING THE 27<sup>TH</sup> SESSION:  
COUNCIL - PART II**

***Informal Working Group - Environment***

*Please fill out one form for each textual proposal which your delegation(s) wish(es) to amend, add or delete.*

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

Federal Republic of Germany

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

Annex Xter - Design Criteria for IRZ and PRZ

**3. 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.**

Contractors must establish impact reference zones (IRZs) and preservation reference zones (PRZs) in order to monitor the environmental impacts of their activities. The following parameters shall be followed in the designation of IRZs and PRZs.

1. IRZs and PRZs must be situated within the Contract Area (and the Contract Area may need to be selected around the need for appropriate IRZ/PRZs, especially where multiple or large zones are required).
2. IRZs must be sites where direct impacts from mining are likely to occur.
3. For each type of impact identified in the environmental impact statement, there must be at least one corresponding IRZ which will enable the Contractor to monitor that impact. This is likely to require multiple IRZs (or a very large IRZ).
4. PRZs will be important in identifying natural variations in environmental conditions against which impacts will be assessed. Their species composition, habitat types, and occurrence of mineral resource, must be comparable to that of the impacted areas.
5. PRZs must be areas that will not be impacted by mining activities, including impacts from operational and discharge plumes.
6. If a Contract Area consists of several disjunct sub-areas that are isolated from each other, then each of those areas would require a corresponding PRZ.
7. Use of multiple PRZs should be considered for increase in statistical rigour, and chance of detecting effects and adding redundancy in case of unexpected variation/plan changes.
8. The area of the PRZ needs to be sufficiently large to contain (and buffer) sufficiently large populations to guarantee long-term survival.
9. In theory, all species within the IRZ and PRZ will need to be monitored to quantify impacts. In practice, some representative set might suffice. To establish an adequate baseline and find suitable indicator species (e.g. the sensitive species

that will suffer most from an impact) it will be necessary to catalogue as many species as reasonably possible in the IRZ and PRZ in question. This will require an extensive sampling effort to collect sample numbers and volumes that allow for a meaningful comparison (i.e., with high statistical power)

10. The longevity of PRZs is important. The duration of post-mining monitoring should until no measurable difference between IRZ and PRZ can be detected anymore.

11. Isolation of PRZs is important: any PRZ will by definition have to remain unimpacted throughout the post-mining monitoring period.

12. To designate representative IRZs/PRZs requires characterisation of pelagic and benthic communities within all sub-habitats that may be impacted by mining operations, and determination of regional distributions and patterns of connectivity. Temporal variation must also be evaluated annually over multiple years (for at least one test-mining site, and the PRZ site).

13. A Contractor will need to be able to demonstrate a general knowledge of ecosystem functioning and of the ecology of the present species; an average population density alone will not suffice.

**4. Please indicate the rationale for the proposal. [150 word limit]**

We support the proposed additional Annex on the design criteria for IRZ and PRZs. This is essential because IRZ/PRZ should be designated very early to ensure contractors collect sufficient baseline data for them over their 15 years of exploration. Without baseline data, IRZ/PRZs are meaningless and it will not be possible to determine the impact of mining on ecosystems.