NERC MOORINGS POLICY

Risk Management Document

In addition to submission of a Ship Time and Marine Equipment Form all requests for the use of NMEP equipment associated with moorings activities are required to complete a risk management form which will be reviewed and a risk assigned.

Three categories of risk will be assigned:
Low: there is a low risk and the equipment will be provided (if available)
Medium: there is a significant risk and the proposal will be reviewed to assess the likelihood of equipment loss etc. and whether this risk is acceptable, taking into account scientific importance of results, impact on future programmes, and cost of replacement. On the basis of the review it will be decided whether the NMEP should provide some or all of the equipment
High: the risk is too great, equipment will not be provided by the NMEP and, proposers must provide their own equipment.

In the first instance the level of risk will be assessed by NMF. If the risk is considered to be greater than a 'low' level the application will be sent for review by experts in the scientific community.

The following areas will be considered when assigning risk and sufficient information should be provided in the risk management form to allow reviewers to make an informed assessment:

- **Equipment Availability**
    a. Is the equipment available for the dates requested, taking into account where the equipment will be loaded onto and unloaded from the ship (i.e. for what period will the equipment be unavailable for other users, including transportation time, servicing, rebattering etc)? It should be established through consultation with NMF if NMEP equipment will be available for use. Even though a piece of equipment may be within the NMEP it may be planned to be deployed on another cruise. It is recognised that at the application stage it may not be clear if the equipment will definitely be available at the deployment stage, however, it can be established what the potential limitations on supply may be.
    b. Is this an appropriate use of NMEP equipment given the length of deployment? In line with Section 4 of the NERC moorings policy NMEP equipment can be used for short term deployments, but for medium term only on a negotiated basis and for long term moorings on an opportunistic basis where it can be demonstrated that the project has sufficient capital to cover any NMEP capital losses.

- **Impact of failure to recover equipment.** Are there any proposed uses of the same equipment on future cruises? What will be the impact on these cruises if the equipment is not recovered (either by decision or loss)?

- **Recovery/deployment of the equipment.**
    a. When and how will the deployment and recovery of the equipment take place, has confirmation of ship time been provided and has the ship been approved as suitable?

b. If you are not Principal Scientist on the cruise do you have agreement from the Principal Scientist that the mooring recovery will be considered a priority of the cruise and that any decision to not recover the mooring will be taken in conjunction with yourself?
c. Is the equipment is to be deployed/recovered by people that have the relevant training and experience?
d. What is the contingency plan for recovery if the original recovery does not take place for any reason? These plans need not be followed up, but will help in determining the mooring life span (contingency period).

- **Mooring environment**. Is the deployment in a "risky" environment - is the area heavily fished, is the prevailing weather likely to be poor, is the bathymetry unsuitable (e.g. too rocky or steep for the safe deployment of landers)? Have the correct permissions been obtained and the relevant authorities been informed for the mooring deployment?

- **Mooring design.** Has the mooring been designed within the context of the best practice document (Annex III)

- **Mooring development and trials**.
  a. Where a new mooring design will be used has sufficient time should been allowed for mooring design and build before the first deployment?
  b. Has a trials period been allowed for?

- **Mooring life span**
  a. Do the timings for the deployment and recovery of the mooring correspond with the estimated life span of the mooring equipment with respect to issues such as corrosion and battery power?
  b. Does the final 'life span' of the mooring allow for both the science needs and a contingency period, in case of recovery/turn-around failure? The contingency period should reflect the mooring location. In a remote area, or area only accessible at certain times of the year, where there are limited options of recovery by another vessel the contingency period will need to be substantially greater than for a mooring in a relatively accessible area

Additional risks may also be identified by either Sea-Systems or expert reviewers on an application by application basis.

This approach allows NERC to determine the risk associated with mooring activities in the context of provision of equipment from the NMEP. There will be no peer review of the science.