APPLICATION FOR THE CONSENT TO CONDUCT MARINE SCIENTIFIC RESEARCH IN AREAS UNDER NATIONAL JURISDICTION OF THE UNITED KINGDOM

Date: 19/5/06

1. General information

1.1 Cruise name and/or number: CV0619

1.2 Sponsoring institution:

Name: Marine Institute

Address: Rinville
Oranmore, Galway
Ireland

Name of Chief Executive: Dr. Peter Heffernan

1.3 Scientist in charge of the project:

Name: Garvan O'Donnell

Address: Marine Institute
Rinville
Oranmore, Galway
Ireland

Telephone: 00 353 91 387517
Telefax: 00 353 91 387201

1.4 Scientist(s) from UNITED KINGDOM involved in the planning of the project

Name(s): Dr. Colin Jago
Address: School of Ocean Sciences
Marine Science Laboratories
Menai Bridge
Gwynedd LL59 5AB

1.5 Submitting officer:

Name and address: Caitriona Nic Aonghusa
Marine Institute
Rinville
Oranmore, Galway

Country: Ireland

Telephone: 00 353 91 387200

Telefax: 00 353 91 387201

2. Description of project (Attach additional pages as necessary)

2.1 Nature of objectives of the project:

This cruise is part of the INTERREG IIIA funded MATSIS (Methods of Assessment of Trophic Status in the Irish Sea) project. The primary aim is to develop new strategies and techniques for trophic status determination to facilitate end-user implementation of the Water Framework Directive (WFD). This will be done by developing, evaluating and implementing new techniques suitable for end-user assessment of primary productivity and its controls. In addition, these new techniques, along with supporting parameter, will be used in areas of the Irish Sea that are exposed to varying amounts of human impacts and differing environmental conditions to make an assessment of trophic status.

2.2 Relevant previous or future research cruises:

The Marine Institute has been carrying out winter nutrients monitoring in the Irish and Celtic Seas since 1991.

A total of four cruises will be undertaken as part of the MATSIS project in 2006. These will take place in January, April, June and September. Cruises in January and June will be conducted on the Celtic Voyager and cruises in April and September will be on the Prince Madog.

2.3 Previously published research data relating to the project:

McGovern, E., E. Monaghan, A. Rowe, C. Duffy, Á. Quinn, B. McHugh, T. McMahon, M. Smyth, M. Naughton, M. McManus and E. Nixon. (2002) Winter Nutrient Monitoring of the Western Irish Sea – 1990 to 2000. *Marine Environment and Health Series, No. 4.* Marine Insitute, Dublin. ***MEHS No. 4***

3. Methods and means to be used

3.1 Particulars of vessel

Name: Celtic Voyager
Nationality: Irish

Owner: Marine Institute

Overall length: 31.4 m
Maximum draught: 3.8 m
Net tonnage: 340
Propulsion: Wartsilla UD25m5 (626Kw)
Cruising speed: 9.5 Knots
Call sign: EIQN
Method and capability of communication –

Name of master: Denis Rowan/Fergus O'Hehir
Number of crew: 7
Number of scientists on board: 6

3.2 Aircraft or other craft to be used in the project: N/A

3.3 Particulars of methods and scientific instruments

Types of samples and data	Methods to be used	Instruments to be used
Primary productivity data	Fast Repetition Rate Fluorometer (FRRF) and Pulse Amplitude Modulated Fluorometer (PAM)	FRRF and PAM
Water samples for nutrients	Samples filtered and frozen for analysis in the lab	CTD rosette for water collection
Water samples for phytoplankton pigment analysis	Samples preserved for HPLC analysis in lab	CTD rosette for water collection
Water samples for phytoplankton speciation	Samples preserved with Lugols for analysis in the lab	CTD rosette for water collection

3.4 Indicate whether harmful substances will be used:
Lugols solution will be used for preserving samples for phytoplankton speciation
Liquid nitrogen will be used to preserve chlorophyll samples

3.5 Indicate whether drilling will be carried out: No

3.6 Indicate whether explosives will be used No

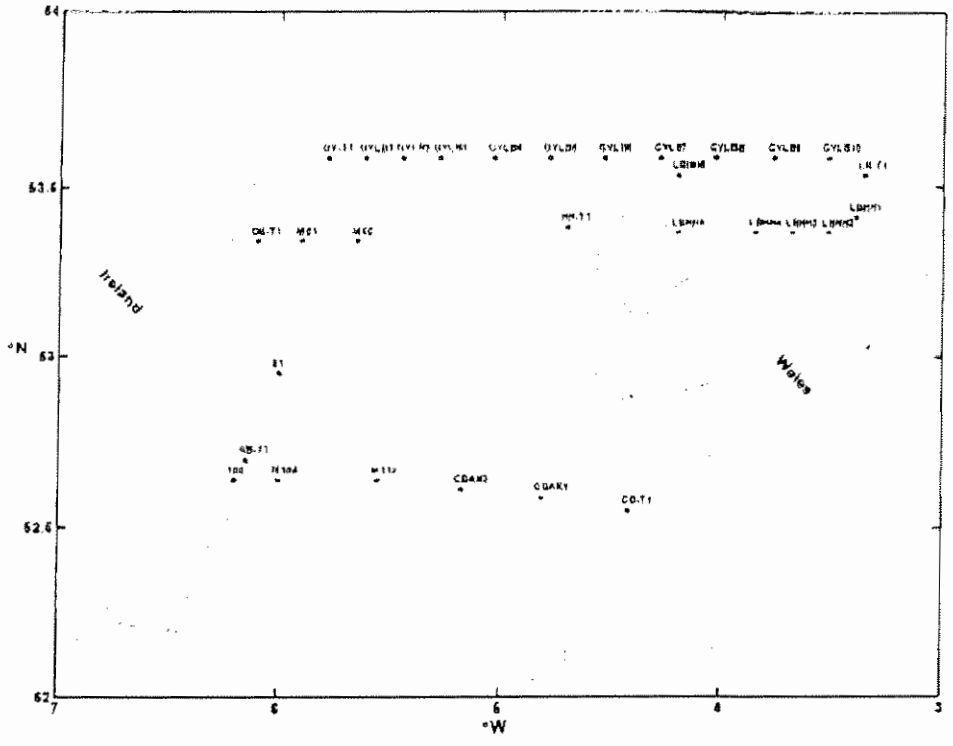
4. Installations and equipment

Details of installations and equipment (dates of laying, servicing, recovery, exact locations and depth):

5. Geographical areas

5.1 Indicate geographical areas in which the project is to be conducted (with reference in latitude and longitude):

The geographical area will be with in the following boundary:
Longitude: 51.5°N to 54°N
Lattitude: 003°W to 006.5°W



5.2 Attach chart(s) at an appropriate scale showing the geographical areas of the intended work and, as far as practicable, the positions of intended stations, the tracks of survey lines, and the locations of installations and equipment.
See above.

6. **Dates** between 20th and 26th June.

6.1 Expected dates of first entry into final departure from research area of the research vessel:

6.2 Indicate if multiple entry is expected: yes

7. **Port calls**

7.1 Dates and names of intended ports of calls in UNITED KINGDOM:
none anticipated

7.2 Any special logistical at ports of call:
N/A

7.3 Names/ Address / Telephone of shipping agent (if available)

8. Participation

8.1 Extent to which UNITED KINGDOM will be enable to participate to be represented in research project:

The University of Wales, Bangor are our project partners and half of the project cruises will be carried out on their vessel, the Prince Madog.

In addition, the MATSIS project has a steering committee which has representatives from the EA, Countryside Council of Wales, CEFAS, DEFRA and SEPA.

8.2 Proposed dates and ports for embarkation / disembarkation:

Embarkation port: Howth June 20th

Disembarkation: Howth June 26th

9. Access to data, samples and research results

9.1 Expected dates of submission to UNITED KINGDOM preliminary reports which should include the expected dates of submission of the final results:

A preliminary report which lists stations visited will be available in February. The final results will be available through the project report at the completion of the project (August 07)

9.2 Proposed means for access by UNITED KINGDOM to data and samples:

Data and available samples can be accessed by contacting the scientist in charge, Garvan O'Donnell.

9.3 Proposed means to provide UNITED KINGDOM with assessment of data, samples and research results or provide assistance in their assessment or interpretation:

The MATSIS project will produce progress reports and a final project report which will be available on the MATSIS project website.

9.4 Proposed means of making research results internationally available:

This will be done through seminars, workshops, project report and scientific publications of results.

10. Scientific Equipment

COMPLETE THE FOLLOWING TABLE-
SEPARATE PAGE FOR EACH COSTAL STATE:

INDICATE YES OR NO

LIST SCIENTIFIC WORK BY FUNCTION Eg: MAGNETOMETRY: GRAVITY DIVING SEISMICS BATHYMETRY SEABED SAMPLING TRAWLING ECHO SOUNDING WATER SAMPLING U/W TV MOORED INSTRUMENTS TRAWLING ECHO SOUNDING WATER SAMPLING	Water column including sediment sampling of the Seabed	Fisheries research within fishing limits	Research concerning the natural resources of the continental shelf or its physical characteristics	DISTANCE FROM COAST		
				Within 12nms	Between 12-200nms	(Continental shelf work only) Beyond 200nm but within the continental margin
WATER SAMPLING	Y	N	Y	Y	Y	N
PROFILING INSTRUMENTS	Y	N	Y	Y	Y	N
ABOVE WATER OPTICS AND PHOTOGRAPHY	Y	N	Y	Y	Y	N

(On behalf of the Principle Scientist)

Dated ----------