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**CONVENTION ON THE PREVENTION OF MARINE POLLUTION
BY DUMPING OF WASTES AND OTHER MATTER, 1972
AND ITS 1996 PROTOCOL**

Statement of concern regarding iron fertilization of the oceans to sequester CO₂

Introduction

1 At the 30th meeting of the Scientific Group under the London Convention, convened in conjunction with the 1st meeting of the Scientific Group under the London Protocol, (Santiago de Compostela, Spain: 18 to 22 June 2007), a number of documents were considered concerning large-scale ocean iron fertilization: (LC/SG 30/12 (IUCN); LC/SG 30/12/1 (Greenpeace International); and (LC/SG 30/INF.28 (United States)). In light of these submissions, the Scientific Groups developed the following “statement of concern”:

Statement of Concern

“Large-scale fertilization of ocean waters using micro-nutrients such as iron to stimulate phytoplankton growth in order to sequester carbon dioxide is the subject of recent commercial interest. The Scientific Groups of the London Convention and the London Protocol took the view that knowledge about the effectiveness and potential environmental impacts of ocean iron fertilization currently was insufficient to justify large-scale operations.

According to the Intergovernmental Panel on Climate Change (IPCC), iron fertilization of the oceans may offer a potential strategy for removing carbon dioxide from the atmosphere by stimulating the growth of phytoplankton and thereby sequestering the carbon dioxide in the form of particulate organic carbon. However, the IPCC also stated that ocean iron fertilization remains largely speculative, and many of the environmental side effects have yet to be assessed.

The Scientific Groups noted with concern the potential for large-scale ocean iron fertilization to have negative impacts on the marine environment and human health. They therefore recommended that any such operations be evaluated carefully to ensure, among other things, that such operations were not contrary to the aims of the London Convention and London Protocol¹.”

¹ This is an extract of the summary report of the joint meeting of the Scientific Groups. The full report will become available in due course as document LC/SG 30/14.

2 The Scientific Groups agreed that the evaluation referred to in the above statement should include, among other things, consideration of:

- .1 the estimated amounts and potential impacts of iron and other materials that may be released with the iron;
- .2 the potential impacts of gases that may be produced by the expected phytoplankton blooms or by bacteria decomposing the dead phytoplankton;
- .3 the estimated extent and potential impacts of bacterial decay of the expected phytoplankton blooms, including reduced oxygen concentrations;
- .4 the types of phytoplankton that are expected to bloom and the potential impacts of any harmful algal blooms that may develop;
- .5 the nature and extent of potential impacts on the marine ecosystem including naturally occurring marine species and communities;
- .6 the estimated amounts and timescales of carbon sequestration, taking account of partitioning between sediments and water; and
- .7 the estimated carbon mass balance for the operation.

Action requested

3 The Scientific Groups requested the 29th Consultative Meeting of Contracting Parties to the London Convention and the 2nd Meeting of Contracting Parties to the London Protocol (5 to 9 November 2007) to consider the issue of large-scale ocean iron fertilization operations with a view to ensuring adequate regulation of such operations. In particular, the Scientific Groups requested that the following issues be addressed by the Contracting Parties:

- .1 the purposes and circumstances of proposed large-scale ocean iron fertilization operations and whether these are compatible with the aims of the Convention and the Protocol;
- .2 the need, and potential mechanisms, for regulation of such operations; and
- .3 the desirability of bringing to the attention of other international instruments and institutions proposals for such operations.

4 Contracting Parties to the London Convention and the London Protocol are invited to:

- .1 take into account the above-mentioned statement of concern when considering experimental or large-scale ocean iron fertilization to sequester CO₂; and
- .2 provide further information relating to proposed large-scale ocean iron fertilization operations to the Secretariat and to the Scientific Groups as and when such information becomes available.

5 Background information and reports on the discussions in the last two years under the London Convention and Protocol about CO₂ sequestration in sub-seabed geological formations can be found at http://www.imo.org/dynamic/mainframe.asp?topic_id=1615, while general information about the London Convention and Protocol can be accessed at <http://londonconvention.org>.