



# OCEAN FERTILIZATION ACTIVITIES ARE CURRENTLY NOT ALLOWED EXCEPT FOR QUALIFIED RESEARCH

Canada is Party to two international treaties for the prevention of marine pollution from the disposal of wastes or other matter at sea known as the London Convention and the London Protocol (LC/LP). Canada implements its commitments on these treaties and operates a disposal at sea permit system using the *Canadian Environmental Protection Act*, 1999 (CEPA 1999).

Since 2007, the global community has had concerns regarding ocean fertilization (any activity undertaken by humans with the principal intention of stimulating primary productivity in the oceans<sup>1</sup>). While these activities have been proposed as potential marine geo-engineering techniques to reduce atmospheric levels of carbon dioxide and help address climate change, there is no evidence to date confirming this potential. At the same time, there are serious concerns regarding the impacts that may be associated with ocean fertilization and the possible extent of these impacts on the marine environment.

Given these concerns, in 2008 Canada voted with other Parties to adopt resolution LC-LP (2008) by consensus. The resolution states that ocean fertilization activities fall within the purview of the LC/LP and that ocean fertilization activities other than legitimate scientific research should not be allowed.

Canada also agreed in 2010, under resolution LC-LP.2(2010) "on the Assessment Framework for Scientific Research involving Ocean Fertilization," that proposed research projects should be assessed to determine if they qualify as "legitimate scientific research." Canada supported the adoption of the LC/LP "Assessment Framework for Scientific Research Involving Ocean Fertilization," which is a guidance document parties are being asked to use to guide the conduct of assessments on proposed ocean fertilization research projects prior to their occurring.

Currently, Canada is following these interpretations and this guidance.

<sup>&</sup>lt;sup>1</sup> Ocean fertilization does not include conventional aquaculture or mariculture or the creation of artificial reefs.



## Clarification of the types of activities that are considered to be disposal at sea:

Ocean fertilization activities that fall within the definition of disposal under CEPA 1999 are considered to be disposal at sea and are not allowed without a permit. There are currently no provisions for the permitting of this activity.

Legitimate scientific research involving ocean fertilization does not require a permit under CEPA 1999, but a specific project will need to demonstrate that it qualifies as legitimate scientific research by undertaking the LC/LP "Assessment Framework for Scientific Research Involving Ocean Fertilization." Ocean fertilization projects/proposals that do not qualify as legitimate scientific research would be regarded as disposal at sea, which is prohibited under CEPA 1999.

### What does this mean to those interested in ocean fertilization?

Canada's commitment to this interpretation and guidance means that:

- Canadians, Canadian ships, aircraft and platforms, and those loading material in Canada are not permitted to conduct ocean fertilization projects within waters under Canadian jurisdiction or on the high seas, unless they are "legitimate scientific research" projects. This does not affect traditional aquaculture or mariculture or the creation of artificial reefs.
- 2. To be considered as legitimate scientific research by Environment Canada, projects will need to be assessed using the LC/LP "Assessment Framework for Scientific Research Involving Ocean Fertilization" (Environment Canada's Disposal at Sea program will provide copies). It is worth noting that under this framework, activities that will yield direct financial gains cannot be considered "legitimate scientific research."
- 3. Environment Canada will review each completed assessment and render a decision.
- 4. There is no permit required for Canadians, Canadian ships, aircraft and platforms, and those loading material in Canada in order to conduct legitimate scientific research involving ocean fertilization.

#### **Further information**

#### Internet:

Additional information on CEPA 1999 is available on Environment Canada's website at: www.ec.gc.ca/ceparegistry

Additional information on Environment Canada's Disposal at Sea Program can be found at: www.ec.gc.ca/iem-das

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Cat. No.: En84-85/2-2011E-PDF ISBN: 978-1-100-19022-8

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