Research on Ocean Resources, Marine Geo-Engineering and Climate Change - New Regulations: Implications for Ocean Engineers

Dr. Philomène Verlaan
Visiting Colleague, Department of Oceanography & Senior Adviser,
Institute of Marine Engineering, Science and Technology, London, U.K.

Abstract

Work at sea is regulated at the national and international level. However, at the international level, conducting research at sea has been relatively lightly addressed so far. This changed on 18 October 2013, when, for the first time in international law, the parties to a major marine environmental treaty adopted the following legally binding amendments: a definition of ocean fertilization (OF), a prohibition on OF, except for an OF-related activity new to international law, i.e., "legitimate scientific research", an “Assessment Framework for Scientific Research Involving Ocean Fertilization”, a definition of marine geo-engineering, a definition of marine scientific research related to marine geo-engineering, an overall prohibition of marine geo-engineering unless specifically authorized, a provision for an “Assessment Framework” to regulate marine geo-engineering.

This presentation will discuss the implications for ocean resource engineers of these ground-breaking developments in international law. It will address: the criteria for “legitimate” research; the new requirements for permitting the proposed activities; the "a precautionary approach" to a new activity where considerable uncertainty exists as to its potential environmental effects; and in the broader climate change context, the effect on other proposed marine geo-engineering projects of this new international regulatory mechanism, which may prohibit them for environmental reasons. These developments raise novel technical, resource, research, environmental and regulatory issues with significant implications for geo-engineering projects generally and for the development of responses to climate change in particular. The speaker, who participated in these particular negotiations since 2007, will also discuss the vital role of sea-going researchers in reaching an acceptable result for ocean research, and the need for continuing engagement by these specialists in the international arena to ensure that research at sea can continue to be conducted efficiently.