PART TWO

RADIOACTIVE WASTES IN THE OCEANS: MANAGING THE PAST AND CONSIDERING THE FUTURE
CHAPTER TWO

DEEP SEA IMPACTS

Hjalmar Thiel*

I. Introduction

The deep sea is the largest, continuous ecological unit on earth. However, it is also of all environments the most remote and least well known, both to scientists and to the public. But this remoteness has not protected the deep sea from anthropogenic impacts. Wastes released anywhere on the high seas or into the atmosphere may rapidly sink into the abyss, to be out of sight and out of mind. Invisible and visible wastes penetrate this vast volume of water from a variety of sources and via different pathways. There are few areas of the world’s oceans that have not received any anthropogenic impact, invisibly and by slow-paced transport. Life is ubiquitous in the oceans. Since most species require oxygen, this essential gas must be transported to all locales with the currents; these same currents transport invisible contaminants.

These invisible substances have travelled for long distances and periods of time, and may affect organisms many degrees of latitude and longitude away from their origin and their entrance to the oceans. In contrast, human intrusions into the deep sea are already direct sources of environmental disturbances and these intrusions, visible and made with consciousness of their impact, may become more numerous and more serious in coming years.

Anthropogenic impacts in the deep sea deserve serious consideration and international legal regulation. Invisible deep sea contaminants may eventually return to the ocean surface, add to the local pollution and disturb species or communities, and eventually man, through direct or synergistic effects. Turn-over times in the oceans, depending on regional