

13. Invitation to a Proper Impact Assessment before the Once-Started- And-Then-Irreversible Release of the Fukushima Nuclear Power Plant Cooling Water Waste Collection

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Abstract

Although a majority of scientists believe that the impact of ‘Fukushima Nuclear Power Plant Cooling Water Waste Collection’ (hereafter, ‘FCC’) would be minor, there is an opposing opinion stating that some precautionary measures should be taken before the continuous release of FCC.

Considering 1) the sinking of possibly dense FCC, its spreading along the deep ocean water movement via advective and diffusive flux, its impact upon the benthic flora and fauna; 2) the possible radiological mutation and other effects on planktonic species, underwater vegetations, and benthic animals in the near- and far-field, and their impact on the food web, esp. through biomagnification; 3) coastal processes in small time/spatial scales existing in the near- and far-field,

but not presented in the depiction of large scale motions and their variability such as Kuroshio and Pacific Gyre; 4) FCC evaporation and entrainment via air-sea interactions especially via storms, and the possibility of their returning back as rainfall or snow either onto the sea or the land and its consequences; a draft proposal for a proper impact assessment before the irreversible release of FCC is presented here. This cautionary proposal should be accepted as a starting point of discussion, in the era “United Nations Decade of Ocean Science for Sustainable Development” for the people of the world including the fishermen and fisheries consumers all around the world, and also for the deep ocean water industries especially in Japan, Taiwan, and Korea.