

1. Page 3 line 43, “-- nuclear power plant (FDNPP), which consist of six boiling water reactor units, → “---- nuclear power plant (FDNPP) station where six boiling water reactor units are under the operation,”
2. Page 3, line 47, “ ---generators stopped----“, → “---- generators had been stopped---“
3. Page 3, line 51, “----a hydrogen ----- → “ the hydrogen----”
4. Page 4, line 56, ---discharged-- → ----released---
5. Page 4, line 57, ---discharged-- → ----released---
6. Page 4, line 60, ---were present ---- → ---were observed ---
7. Page 4, line 61, --atmospheric particles-- → --airborne dust—
8. Page 4, line 65, ---wastewater is --- → --wastewater was—
9. Page 5, line 71, ---monitoring program → ---monitoring
10. Page 5, line 73, ---the ocean has expanded → the ocean has been expanded
11. Page 5, line 79, --the mechanisms that control the distribution of Cs-137 --- → the mechanism that controls the movement of Cs-137---
12. Page 5, line 80, --- by using a suite of complementary measurements---- → with measurement results of other complementary parameters---
13. Page 8, line 121, “Sampling cruises--- in the supplement” to be deleted.
14. Page 8, line 121, “ ---trend in the distribution---→ “in the distribution trend---”
15. Page 8, line 123, “--the locations of sampling stations—“ → “—sampling locations---
16. Page 8, line 124, ”to oceanic locations further---“ → “to far offshore---“
17. Page 8, line 127, “2.1.1 phase 1” → “2.1.1 the 1st expedition” and apply it to corresponding word through all text.
18. Page 8, from line 129 to 132, “On 23 March 2011 we began -----the FDNPP”. → “The first expedition commenced on 23 March 2011 with four cruises (KH11-E01, MR11-E01, KR11-E02 and YK11-E02). Since the objective of the first expedition was to detect radionuclides released from the FDNPP, samples were collected from only eight sampling stations (1-1 to 1-4 and 2-1 to 2-4) ---the FDNPP.”
19. Page 9, line 140, 2.1.2. “Phase 2 ---“ → “The 2nd expedition---“ and apply it to corresponding word through all text.
20. Page 9, line 142, “On 9 May 2011, we began ----- (Fig. 1C)” → “On 9 May 2011, the 2nd expedition was implemented at expanded sampling area -----.
21. Page 9, line 143, “---were taken from 2, 3, or 4 depths” → “--- were collected at 2 m, 3 m or 4 m depths----“.
22. page 9, line 144-148, “Although it --- at depths of 10 m-----“. → “As it is difficult to precisely define bottom water from a physical oceanographic standpoint, in this work the water collected at ≤30 m above the seabed is termed as the bottom water, while intermediate water signifies the water collected at depths of 10 m-----“.
23. Page 10, line 155-157, “During phase 1 -----container.” → “During the first expedition 0.5 – 2 L of seawater filled in a Marinelli container was measured for several tens of minutes using gamma-ray spectrometry with a coaxial Ge detector.”
24. Page 10, line 159-160, “For practical reasons,----the circumstances” I don’t understand what the sentence means.
25. page 10, line 162 – 163, delete “with -----carrier”

26. page 10, line 163, “The pH of ----- (AMP).” → “After adjusting the pH of the seawater sample to nearly 1 with hydrochloric acid, cesium was co-precipitated with ammonium phosphomolybdate (AMP).”

27. page 10, line 166, insert “The supernatant of the AMP precipitation was used for the determination of ^{90}Sr between –a few hours. and Inoue et al (2012)---

28. page 10, 169 – 170, “ we avoided -----ratio method” → “based on the peak/total ratio method (please cite the reference) the cascade summing of ^{134}Cs in all samples was corrected using a computer software (please refer the name of software)”.

29. Page 11, line 171-172, “When the detection limit ----- the counting,” → “the detection limits of the ^{134}Cs and ^{137}Cs were calculated based on three times the number of the counting noise,”

30. page 11, line 180, “---The supernatant from which the AMP had been removed---“ → “---The supernatant of the AMP precipitation---“

31. page 11, line 182, “an element present---“ → “one of elements---“

32. page 11, line 183, “---was raised ---“ → “was adjusted to 8---“

33. page 11, line 186, “The sample supernatant was then carefully removed and discarded” → “The supernatant was then carefully discarded”

34. page 12, line 188, what is the molarities of hydrochloric acid?

35. In page 12, line 190 the author said Ca was completely removed using a cation exchange resin. However, there is a lot of interfering elements in seawater like Ca and Mg. So actually calcium can't be removed 100% with a cation exchange resin. How did you check the chemical recovery of Sr??

36. page 12, line 199, delete “the presence of” and change “first confirmed” → “first detected”

37. page 12, line 200, delete “at sampling stations”

38. page 12, line 201, “The ^{131}I , -----are summarised---“ → “The activities of ^{131}I , ^{134}Cs and ^{137}Cs and its activity ratios in the samples are summarized ---“

39. page 12, line 203, “fell” → “were” and “ranges” → “range of”

40. page 13, line 214, “we have been monitoring the ^{137}Cs activity in surface waters at fixed points” that are --- → “the ^{137}Cs activities in surface waters have been monitored at fixed sampling stations that are ----“

41. page 13, line 217, “---waters during the five years preceding the accident (2006-2010) had apparently ---“ → “---waters for the five years before the accident (2006-2010) were apparently ---“

42. page 13, line 219, “the range of activities being 1.1-2.2 mBq/L.“ → “with the activity range of 1.1-2.2 mBq/L.”

43. page 13, line 219-221, “the maximum ^{137}Cs --- five years.” → “the highest ^{137}Cs activity during the first cruise (KH11-E01) was 26 Bq/L at Stn. 103 on 24 March and 16,250 times higher than the average value of observed data for the last five years.”

44. Page 14, line 228, “a value higher than the corresponding ratio of 0.5 in the Chernobyl fallout---“ → showing the higher value than that (0.5) in the Chernobyl fallout---“

45. page 14, line 230, “Beginning on 28 March 2011 ---“ → “In the second and third cruises on 28 March 2011---“

46. page 14, line 231, “we collected -----to clarify” → “both of the intermediate and the bottom water samples were additionally collected to clarify”

47. page 14, line 233, “The ^{131}I , ^{134}Cs and ^{137}Cs activities in the intermediate ---- with the $^{131}\text{I}/^{137}\text{Cs}$ and $^{134}\text{Cs}/^{137}\text{Cs}$ activity ratios.” → “The ^{131}I , ^{134}Cs and ^{137}Cs activities and its activity ratios in the intermediate---- in Table 3.

48. Page 14, line 237, “were scattered” → “ were widely ranged”

49. Page 14, line 237, “scatter” → “wide variation”

50. page 15, line 244, “the indication being” → “implying”

51. page 15, line 249, “obtained” → “observed”

52. Page 15, line 251, delete “during Phase 1”

53. Page 15, line 252, delete “from May to July 2011”

54. page 16, line 262, “during a period of 2-3 months” → “within 2-3 months after releasing.”

55. page 16, line 265, “ column, “→ “ column”

56. page 16, line 266, during → over

57. page 16, line 268, “changes in the distribution” → “variations”

58. page 16, line 271, “3.2.1 Temporal changes in distribution of ^{137}Cs --“ → “Temporal variation of ^{137}Cs activities--“

59. page 17, line 273, “changes in the distribution” → “variation”

60. page 17, line 276, there is no sampling stations with names of B1-3 to E1-3 on Fig.1.

61. page 17, line 277, “---relatively low. Specifically, they were---“ → “--- relatively low, specifically showing---“

62. page 17, line 279, “Tsumune et al. (2012) have argued” → “Tsumune et al. (2012) reported”

63. page 17, line 282, delete “the result ----southwadr dispersion”

64. page 17, line 283, there is no sampling stations with names of I1-3 to L1-3 on Fig.1.

65. page 17, 284, “---below---“ → “---less than--”

66. page 17, line 285, “--- ^{137}Cs values are thought to have resulted from the presence of a cyclonic----” → “--- ^{137}Cs activities were probably resulted from a cyclonic -----“

67. page 17, line 287-288, “---by high temperature (~20 °C) and high salinity --- “ → “--- by elevated temperature (~20 °C) and salinity-----“.

68. In fig 4, it is really hard to distinguish series of sampling stations. Please put at least series name on the map of fig.4.

69. Page 18, line 292, “At Stns. A1-3 to -----, ^{137}Cs activities -----values. However, the ^{137}Cs activities were -----than in surface waters at Stns. B1-4, which -----FDNPP.” → “ Being higher than background values at Stns. A1-A3, the ^{137}Cs activities in the surface waters were lower than those at Stns. B1-B4 which are closer to the FDNPP.

70. page 18, line 295, “The resulting pattern was similar to that“ → “The similar pattern was also”

71. page 18, line 297, “It is thought that transport of ^{137}Cs further north was inhibited by the presence of the high-salinity water mass and /or that -----“ → “ It is probably that the high-salinity water mass blocked Cs to travel to further north and/or the ^{137}Cs activity was diluted by other water mass with low ^{137}Cs activity.”

72. page 18, line 302, “changes in the distribution” → “variation”

73. page 19, line 307, “high activities of ^{137}Cs derived from the FDNPP” → “ the FDNPP-derived ^{137}Cs ”