

Interactive comment on “Continuing ¹³⁷Cs release to the sea from the Fukushima Dai-ichi Nuclear Power Plant through 2012” by J. Kanda

J. Kanda

jkanda@kaiyodai.ac.jp

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1) Results and discussion: Since a subjective expression appears here and there (ex. ‘unknown to the author’, ‘could be’), they should be improved.

I have improved the subjective expressions.

2) ‘Results and Discussion’ should be separated into some sections.

Three sub-sections were placed in the ‘Results and Discussion’ section.

3) p. 3582 L 21-28: This sentence indicates the possibility of radioactivity leak to intake canal by using one sampling data (3I) in Fig.3. It’s luck of information. Considering this point, more careful analyses such as comparing other sampling points in U1-4 intake

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canal or comparing outside of intake canal (ULD, T1 and T2) are needed in Fig.3 to improve the paper.

In addition to data of 3I, I showed data from 1I, 2I and 4I in the revised Fig. 3 (Fig. 1 attached to this comment). These represent all the data from inside of the intake screen, and while the magnitude is varying, they consistently show fluctuations of radioactivity after the spring of 2012. The analysis in the revised text reflects this observation.

4) p. 3582 L 24-26: This sentence is subjective. The fluctuation of radioactivity seems to continue after the pavement operation.

It is true that the fluctuation continued after the operation, and thus the fluctuation should be related to the paved seafloor rather than the pavement operation. The point is, however, the fluctuation itself; the occasional elevations of radioactivity strongly indicate input events of radionuclides. I have added this explanation in the text.

5) Fig.2: The careful description of the figure would be helpful for the reader. You should expand the x-axis of Fig.2(b) and show explicitly that the radioactivity of T2 is higher than that of T1 in March.

I expanded both x- and y-axis of Fig. 2b for data at ULD, T1 and T2 (Fig. 2 attached to this comment), and added detailed explanations about this figure including a comparison of radioactivity at T2 and T1 in March.

6) The author should add a brief 'Conclusion'.

I added a paragraph of "Conclusion".

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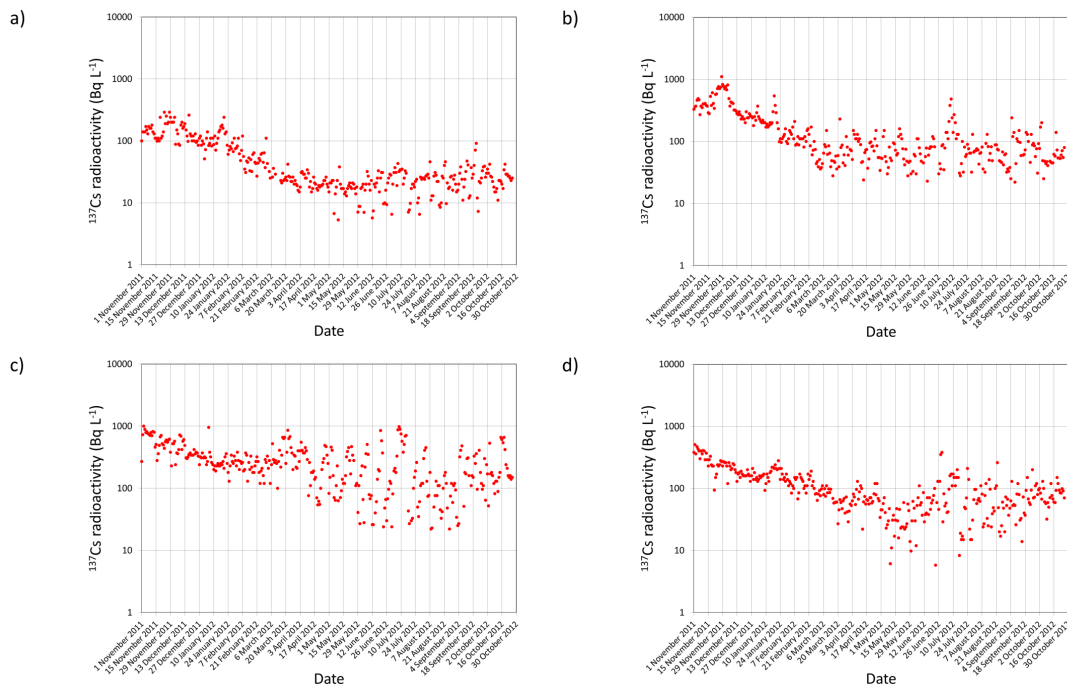


Fig. 1. ¹³⁷Cs radioactivity in seawater taken at 1I (a), 2I (b), 3I (c) and 4I (d) for the period from November 2011 through October 2012 (Figure 3 in the revised manuscript).

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b)

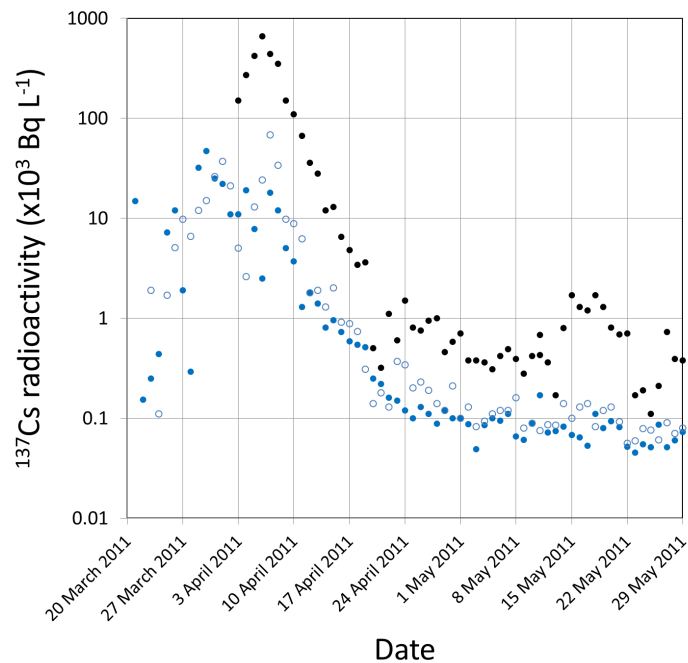


Fig. 2. ^{137}Cs radioactivity in seawater taken at monitoring points T2 (blue dots), T1 (open blue circles), and ULD (black dots) for the period from 20 March through 29 May 2011 (Figure 2b in the revision).

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