

福島県・茨城県沖における海域モニタリング結果(Mn, Co, Ce, Sr)

Readings of Sea Area Monitoring at offshore of Fukushima and Ibaraki Prefecture (Mn, Co, Ce, Sr)

((財)海洋生物環境研究所が採取し、(株)環境総合テクノスおよび(財)九州環境管理協会が分析)

(The samples were collected by Marine Ecology Research Institute (MERI)

and analyzed by the General Environmental Technos Co. Ltd. and Kyushu Environmental Evaluation Association.)

平成24年3月16日

Mar 16, 2012

文部科学省

Ministry of Education, Culture, Sports, Science and Technology (MEXT)

1. 海中の放射能濃度

1. Radioactivity Concentration Undersea

測定試料採取点 Sampling Point	採取日時 Sampling Time and Date	緯度, 経度 Latitude, Longitude	採取深 Sampling Depth		放射能濃度(Bq/L) ^{※2} Radioactivity Concentration (Bq/L) ^{※2}						
					Cs-134	Cs-137	Mn-54 ^{※3}	Co-60 ^{※3}	Ce-144 ^{※3}	Sr-90 ^{※4}	Sr-90/Cs-137
【D1】	2011/12/13 8:00	37° 34.9' N, 141° 22.3' E	表層 Outer Layer	1m	0.0072	0.011				0.0013	0.12
【E5】	2011/12/14 6:51	37° 30.0' N, 142° 00.0' E	表層 Outer Layer	1m	0.030	0.039	ND	ND	ND		
【F1】	2011/12/9 10:30	37° 14.9' N, 141° 22.4' E	表層 Outer Layer	1m	0.015	0.021				0.0017	0.081
【G0】	2011/12/9 6:52	37° 04.9' N, 141° 08.3' E	表層 Outer Layer	1m	0.0096	0.014				0.0014	0.10
【G1】	2011/12/9 8:24	37° 04.9' N, 141° 15.4' E	表層 Outer Layer	1m	0.013	0.019				0.0014	0.074
【H1】	2011/12/7 12:30	36° 55.0' N, 141° 08.4' E	表層 Outer Layer	1m	0.019	0.027				0.0017	0.063
【I0】	2011/12/7 6:49	36° 45.0' N, 140° 53.0' E	表層 Outer Layer	1m	0.068	0.086	ND	ND	ND		
【I1】	2011/12/7 8:11	36° 45.0' N, 140° 56.9' E	表層 Outer Layer	1m	0.014	0.020				0.0021	0.11
【J2】	2011/12/6 9:13	36° 24.9' N, 140° 56.9' E	表層 Outer Layer	1m	0.031	0.038	ND	ND	ND		

※ 文部科学省として、(財)海洋生物環境研究所が採取し、(株)環境総合テクノス(採取場所: D1, F1, G0, G1, H1, I0, I1)及び(財)九州環境管理協会(採取場所: E5, J2)が分析

※ The samples of seawater were collected by Marine Ecology Research Institute (MERI) and analyzed by the General Environmental Technos Co. Ltd. (D1, F1, G0, G1, H1, I0, I1) and Kyushu Environmental Evaluation Association (E5, J2) on the request of Ministry of Education, Culture, Sports, Science and Technology (MEXT).

※ 太字下線データが今回追加。それ以外は平成24年2月7日及び3月1日に公表済み。

※ Boldface and underlined readings are new. Others were published on Feb 7 and Mar 1, 2012.

※1 【】内の番号は、図の測点番号に対応。

※1 The character enclosed in parentheses (Ex. 【A1】) indicates Sampling point in figure.

※2 NDの記載は、海水の放射能濃度の検出値がそれぞれ以下の検出下限値を下回る場合。ただし、検出下限値は検出器や試料性状により異なるため、この値以下でも検出される場合もある。

採取場所E5: Mn-54が0.00042Bq/L、Co-60が0.00047Bq/L、Ce-144が0.0016Bq/L

採取場所I0: Mn-54が0.00084Bq/L、Co-60が0.00075Bq/L、Ce-144が0.0061Bq/L

採取場所J2: Mn-54及びCo-60が0.00051Bq/L、Ce-144が0.0018Bq/L

※2 ND indicates the case that the detected radioactivity concentration in sea water was lower than the detection limits as follows.

Please note that these nuclides are sometimes detected even when they are below the threshold, contingent on the detector or samples.

• for Sampling Points E5: Approximately 0.00042 Bq/L for Mn-54, Approximately 0.00047 Bq/L for Co-60, Approximately 0.0016 Bq/L for Ce-144

• for Sampling Points I0: Approximately 0.00084 Bq/L for Mn-54, Approximately 0.00075 Bq/L for Co-60, Approximately 0.0061 Bq/L for Ce-144

• for Sampling Points J2: Approximately 0.00051 Bq/L for Mn-54 and Co-60, Approximately 0.0018 Bq/L for Ce-144

※3 平成24年3月1日付け「宮城県・福島県・茨城県沖における海域モニタリングの結果について」のCs-137濃度の上位3地点のみMn-54、Co-60、Ce-144測定実施。

※3 Mn-54, Co-60, Ce-144 measurements have been done for 3 samples of higher Cs-137 concentration listed in the report "Readings of Sea Area Monitoring at offshore of Miyagi, Fukushima and Ibaraki Prefecture (Mar 1, 2012)".

※4 「宮城県・福島県・茨城県沖における海域モニタリングの結果について」のこれまでのCs-137の高い地点、流れ、測定の継続性等を考慮して6地点でSr-90測定実施。

※4 Sr-90 measurements have been done for 6 sampling points considering relatively high Cs-137 concentration, ocean current and continuity of measurements, etc in the past data listed in the report "Readings of Sea Area Monitoring at offshore of Miyagi, Fukushima and Ibaraki Prefecture".

参考(Reference)

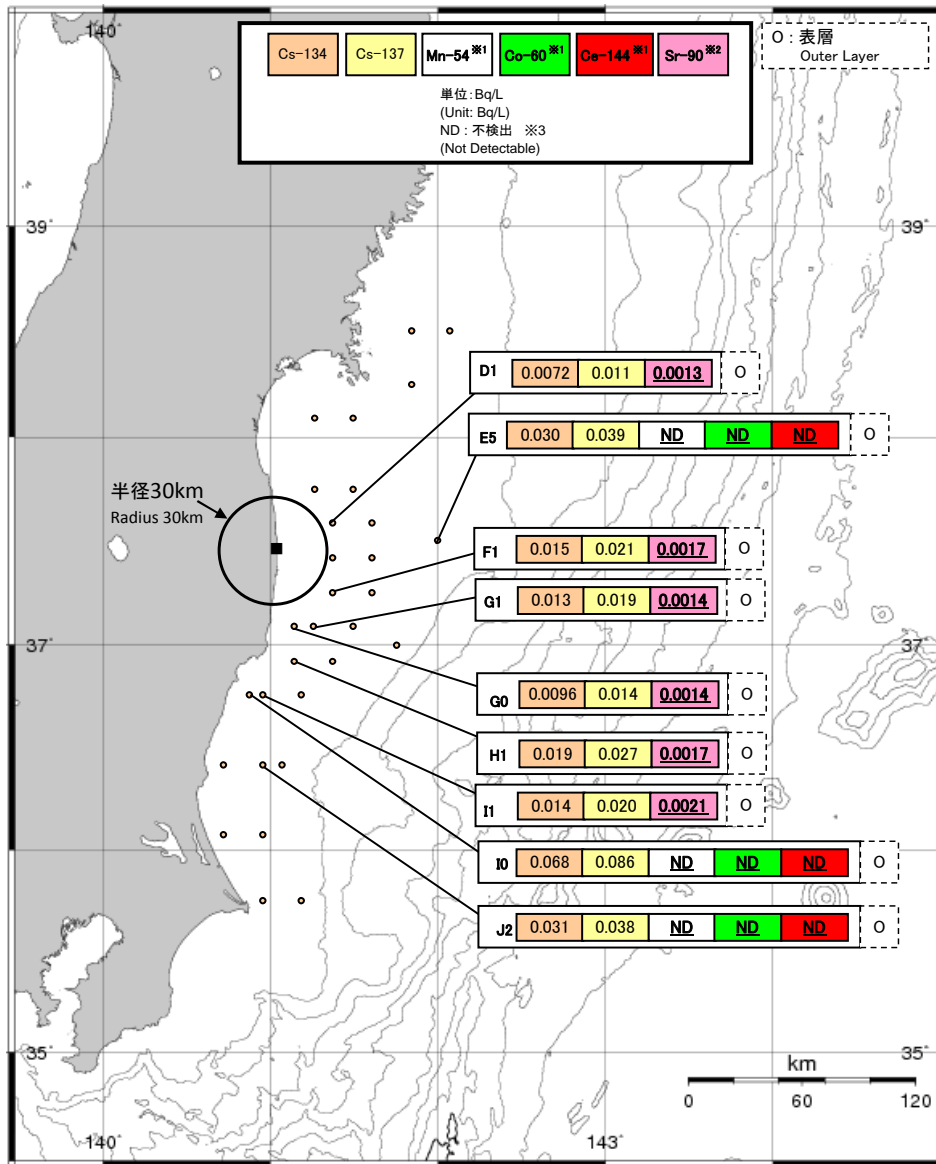
今回検出されたSr-90は、平成20-22年度「海洋環境放射能総合評価事業」の原子力発電所等周辺の福島第1海域及び茨城県海域における調査結果(0.00091~0.0014 Bq/L)と概ね同レベルであるが、高い数値も出ているため、今回の事故に由来する可能性は否定できない。

Radioactivity concentration level of Sr-90 detected in this analysis show almost same radioactivity concentration level(0.00091~0.0014 Bq/L) which are shown in the report "Oceanic Environmental Radioactivity Synthesis Evaluation Business" 2008-2010 as the level in the sea area of Fukushima Dai-ichi and Ibaraki which are relatively close to nuclear power plant. In some cases the level of the nuclide show exceeding those of Sr-90, it is not denied the possibility that the nuclide is considered to be discharged by the accident.

福島県・茨城県沖における海域モニタリングの結果 (Mn, Co, Ce, Sr)
 (平成23年12月6日、7日、9日、13日、14日採取)

Readings of Sea Area Monitoring at offshore of Fukushima and Ibaraki Prefecture
 (Mn, Co, Ce, Sr) (Dec 6, 7, 9, 13, 14, 2011)

公表日:平成24年3月16日
 (Published: Mar 16, 2012)



図中の■は東京電力(株)福島第一原子力発電所を示す。
 ※ 文部科学省として、(財)海洋生物環境研究所が採水し、(株)環境総合テクノス(採取場所: D1, F1, G0, G1, H1, I0, I1)及び(財)九州環境管理協会(採取場所: E5, J2)が分析

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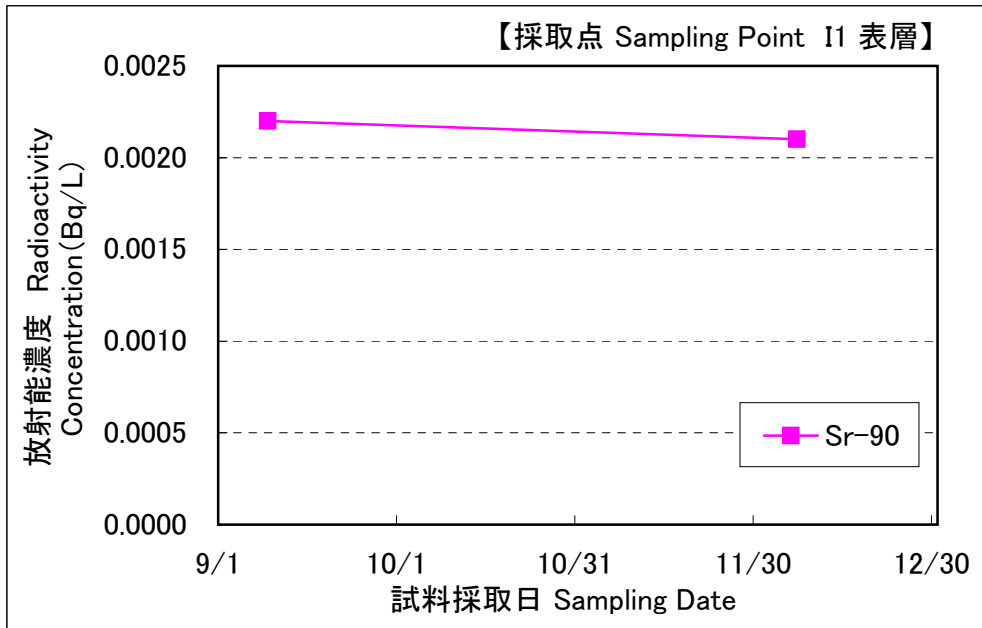
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海水中のSrの放射能濃度の傾向

Trends of radioactivity concentration of Sr in the Sea



* Mn-54, Co-60, Ce-144は検出限界以下のためグラフは省略する。

* The graphs of Mn-54, Co-60, Ce-144 are not shown because their radioactivity concentrations were lower than the detection limits.

* 採取点D1, F1, G0, G1, H1のSr-90のデータは1回のみ測定のためグラフは省略する。

* The graphs of the sampling points D1, F1, G0, G1 and H1 are not shown because the data of Sr-90 at these points was detected just once.