



27th June 2011

Measurement of radiation level around the Port in Pacific side of Northeast Japan

MLIT has posted with the radiation level of air and seawater around the port of Tokyo, Yokohama, Kawasaki and Chiba on website in related with Fukushima Daiichi Nuclear Power Plant accident.

In addition to the existing information, MLIT began to post the radiation level of air and seawater around the port in Pacific side of Northeast Japan on website in 4 languages.

(http://www.mlit.go.jp/kowan/kowan_fr1_000041.html)

On 27th June 2011, the radiation level around the port in Pacific side of Northeast Japan were as below at very safe level to health (see appendix).

Contents;

1) Measurement of Radiation Dose for Air

Ports (Total: 11):

Tokyo, Yokohama, Kawasaki, Chiba, Kashima, Onahama,
Souma, Sendaishiogama, Ishinomaki, Kuji, Hachinohe

2) Measurement of Radioactivity for Seawater

Tokyo bay,

Ports (Total: 9)

Tokyo, Yokohama, Kawasaki, Kashima, Onahama,
Souma, Sendaishiogama, Ishinomaki, Hachinohe

[Reference]

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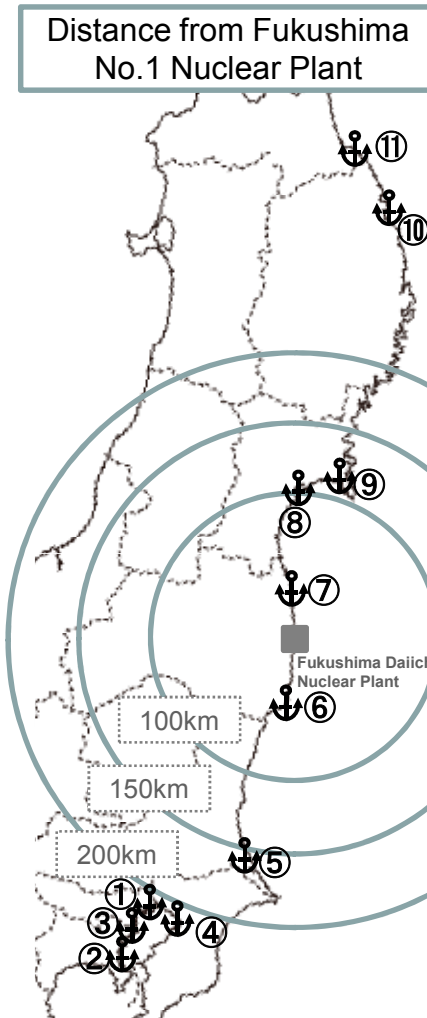
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Measurement of Radiation Dose for Air in the Ports

(the Pacific side of Northeast Japan)

http://www.mlit.go.jp/kowan/kowan_fr1_000040.html

Measured dose	Measurement points	6/22(Wed)	6/23(Thu)	6/24(Fri)		Annual exposure calculation
① Port of Tokyo	Oi Wharf	0.07 μ Sv/h	0.08 μ Sv/h	0.08 μ Sv/h	=0.00008 mSv/h	0.70mSv
② Port of Yokohama	Honmoku Wharf (BC gate)	0.10 μ Sv/h (AM)	0.08 μ Sv/h (AM)	0.09 μ Sv/h (AM)	=0.00009 mSv/h	0.79mSv
③ Port of Kawasaki	Kawasaki Municipal Research Institute for Environmental Protection <4km from the port>	0.04 μ Sv/h (AM 8:00)	0.04 μ Sv/h (AM 8:00)	0.04 μ Sv/h (AM 8:00)	=0.00004 mSv/h	0.35mSv
④ Port of Chiba	Chiba Prefectural Environmental Research Center <9km from the port>	0.04 μ Sv/h (AM 8:00)	0.04 μ Sv/h (AM 8:00)	0.04 μ Sv/h (AM 8:00)	=0.00004 mSv/h	0.35mSv
⑤ Port of Kashima	Bureau of Port of Kashima	0.10 μ Sv/h (AM 8:00)	0.10 μ Sv/h (AM 8:00)	0.10 μ Sv/h (AM 8:00)	=0.00010 mSv/h	0.88mSv
⑥ Port of Onahama	Fujiwara Wharf	0.12 μ Sv/h (AM 12:00)	0.11 μ Sv/h (AM 11:45)	- μ Sv/h (AM -)	=0.00011 mSv/h (※6/23)	0.96mSv (※6/23)
⑦ Port of Souma	No.2 Wharf	0.18 μ Sv/h (AM 10:01)	0.20 μ Sv/h (AM 10:14)	- μ Sv/h (AM -)	=0.00020 mSv/h (※6/23)	1.75mSv (※6/23)
⑧ Port of Sendai-shiogama	Takasago Container Terminal	0.03 μ Sv/h (Date : 6/24)			=0.00003 mSv/h	0.26mSv
⑨ Port of Ishinomaki	Nakajima Wharf	0.06 μ Sv/h (Date : 6/24)			=0.00006 mSv/h	0.53mSv
⑩ Port of Kuji	Research Institute for Environmental Sciences and Public Health of Iwate Prefecture <81km from the port>	0.02 μ Sv/h (AM 7:00~8:00)	0.03 μ Sv/h (AM 7:00~8:00)	0.03 μ Sv/h (AM 7:00~8:00)	=0.00003 mSv/h	0.26mSv
⑪ Port of Hachinohe	Hachinohe City office <4km from the port>	0.03 μ Sv/h (6/21 9:00~6/22 9:00)	0.03 μ Sv/h (6/22 9:00~6/23 9:00)	0.04 μ Sv/h (6/23 9:00~6/24 9:00)	=0.00004 mSv/h	0.35mSv



①Source: Bureau of Port and Harbor Tokyo Metropolitan Government <<http://tokyoport-measurement.jp/>>

②Source: Yokohama Port Public Corporation <<http://www.yfdc.or.jp/radiation/yokohama/>> ⑧⑨Source: Miyagi Prefecture <[http://www.pref.miyagi.jp/gentai/Press/PressH230315-3\(sokutei\).html](http://www.pref.miyagi.jp/gentai/Press/PressH230315-3(sokutei).html)> ⑩Source: Iwate Prefecture <<http://www.pref.iwate.jp/view.rbz?cd=32066>>

③Source: Kawasaki City <<http://www.city.kawasaki.jp/e-news/info3715/index.html>> ⑪Source: Aomori Prefecture <<http://www.aomori-genshiryoku.com/>>

⑤Source: Ibaraki Prefecture <<http://www.pref.ibaraki.jp/important/20110311eq/index.html>>

⑥⑦Source: Fukushima Prefecture <http://www.cms.pref.fukushima.jp/pcp_portal/PortalServlet;jsessionid=6D35E72E7571D9FD999752E003A0EC47?DISPLAY_ID=DIRECT&NEXT_DISPLAY_ID=U000004&CONTENTS_ID=10877>

- 1) 1 Gray/hour (Gy/hr) \doteq 1 Sievert /hour (Sv/hr).
- 2) 1 mili-Sievert (mSv) = 1000 micro-Sievert (μ Sv)
1 micro-Sievert (μ Sv) = 1000 nano-Sievert (nSv)
- 3) "Annual exposure calculation" is the estimation under the condition that the hourly radiation dose measurement at the measurement point is accumulated 24 hours throughout the year.
- 4) The figure in parenthesis below the measured value indicates the measurement time

According to the Ministry of Education, Culture, Sports, Science and Technology, examples of exposure level of radiation in daily life is as below.

- Chest X-ray (once) 0.05 mSv
- 1 roundtrip between Tokyo and New York by air 0.2 mSv
- Stomach X-ray (once) 0.6 mSv

According to the WHO, a person is exposed to approximately 3.0mSv/year on average.

Measurement of Radioactivity for Seawater in the Ports

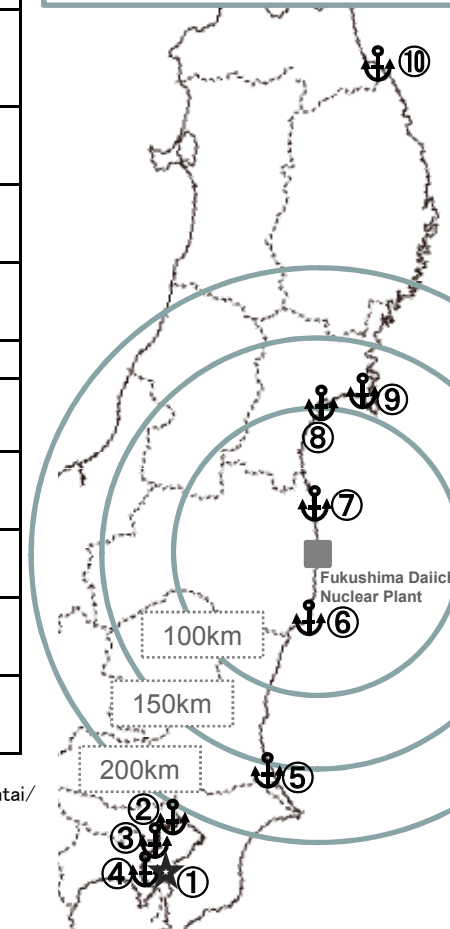
(the Pacific side of Northeast Japan)



http://www.mlit.go.jp/kowan/kowan_fr1_000040.html

		Measurement Points	Date	Iodine I-131	Cesium Cs-134	Cesium Cs-137
①	Tokyo bay	Uraga Channel	6/24 (Fri)	Not Detected (less than 5Bq/kg)	Not Detected (less than 5Bq/kg)	Not Detected (less than 5Bq/kg)
②	Port of Tokyo	Mid point between Oi Terminal and Aomi Terminal	6/24 (Fri)	Not Detected	Not Detected	Not Detected
③	Port of Yokohama	Yokohama Passage/ Tsurumi Passage	6/20 (Mon)	Not Detected (less than 20Bq/L)	Not Detected (less than 20Bq/L 以下)	Not Detected (less than 20Bq/L)
④	Port of Kawasaki	Kawasaki Passage	6/23 (Thu)	Not Detected	Not Detected	Not Detected
⑤	Port of Kashima	3km off the coast of Hirai	6/21 (Tue) ~ 22 (Wen)	Not Detected (less than 40Bq/L)	Not Detected (less than 60Bq/L)	Not Detected (less than 90Bq/L)
⑥	Port of Onahama	1) No.4 Wharf 2) Otsurugi Wharf	6/20 (Mon)	1) Not Detected	2.43 Bq/L	2.40 Bq/L
				2) Not Detected	1.91 Bq/L	2.69 Bq/L
⑦	Port of Souma	No.2 Wharf	6/20 (Mon)	Not Detected	1.26 Bq/L	1.94 Bq/L
⑧	Port of Sendaishiogama	Takasago Container Terminal	5/18(Sat)~19(Sun)	Not Detected	Not Detected	Not Detected
⑨	Port of Ishinomaki	Nakajima Wharf	5/24 (Tue)	Not Detected	Not Detected	Not Detected
⑩	Port of Hachinohe	Hattaro Area (in the port)	6/16 (Thu)	Not Detected (less than 1.6Bq/L)	Not Detected (less than 1.1Bq/L)	Not Detected (less than 1.0Bq/L)

Distance from Fukushima No.1 Nuclear Plant



- ①Source: Kanto Regional Development Bureau, MLIT <<http://www.pa.ktr.mlit.go.jp/index.html>>
- ②Source: Bureau of Port and Harbor, Tokyo Metropolitan Government <<http://tokyoport-measurement.jp/>>
- ③Source: Yokohama Port Public Corporation <<http://www.yfdc.or.jp/radiation/yokohama/>>
- ④Source: Kawasaki City <<http://www.city.kawasaki.jp/e-news/info3895/index.html>>
- ⑤Source: Tokyo Electric Power Company <<http://www.tepco.co.jp/ibaraki/monitor/index-j.html>>
- ⑥⑦Source: Fukushima Prefecture <http://www.cms.pref.fukushima.jp/pcp_portal/PortalServlet.jsessionid=6D35E72E7571D9FD999752E003A0EC47?DISPLAY_ID=DIRECT&NEXT_DISPLAY_ID=U000004&CONTENTS_ID=10877>
- ⑧⑨Source: Miyagi Prefecture <[http://www.pref.miyagi.jp/gentai/Press/PressH230315-3\(sokutei\).html](http://www.pref.miyagi.jp/gentai/Press/PressH230315-3(sokutei).html)>
- ⑩Source: Aomori Prefecture <<http://www.pref.aomori.lg.jp/soshiki/kendo/kowan/housya.html>>

- 1) Sample is collected from surface of the sea
- 2) 'Not Detected', "Less than Detectable" mean the value below detection limit.
- 3) The figure in parenthesis below 'Not Detected' indicates detection limit level.

【Reference】
 Barometer of the intake limitation for food material that is defined by Nuclear Safety Committee Japan is shown as follows;
 -Radioactive Iodine in drinking water; under 300Bq (becquerel) /1kg water
 -Radioactive Cesium in drinking water; under 200Bq (becquerel) /1kg water
 Bq (becquerel) is defined as the activity of a quantity of radioactive material.