



Gamma Spectroscopy Analysis, Portland Station

The estimated overall maximum biological effect from the trace amounts of radiation currently detected in Oregon from the events in Japan is about 0.000160 mrem per day. **To put this into perspective, a person would need to be exposed to this level all day, everyday for over 100 years to equal the exposure from ONE chest X-ray.**

Date	Cesium - 137		Iodine - 131	
	Activity pCi/m ³	Bio Effect mrem	Activity pCi/m ³	Bio Effect mrem
12/27/2011 - 12/30/2011	<MDA*	<MDA*	<MDA*	<MDA*
12/22/2011 - 12/27/2011	<MDA*	<MDA*	<MDA*	<MDA*
12/20/2011 - 12/22/2011	<MDA*	<MDA*	<MDA*	<MDA*
12/15/2011 - 12/20/2011	<MDA*	<MDA*	<MDA*	<MDA*
12/12/2011 - 12/15/2011	<MDA*	<MDA*	<MDA*	<MDA*
12/09/2011 - 12/12/2011	<MDA*	<MDA*	<MDA*	<MDA*
12/06/2011 - 12/09/2011	<MDA*	<MDA*	<MDA*	<MDA*
12/02/2011 - 12/06/2011	<MDA*	<MDA*	<MDA*	<MDA*
11/29/2011 - 12/02/2011	<MDA*	<MDA*	<MDA*	<MDA*
11/23/2011 - 11/29/2011	<MDA*	<MDA*	<MDA*	<MDA*
11/21/2011 - 11/23/2011	<MDA*	<MDA*	<MDA*	<MDA*
11/17/2011 - 11/21/2011	<MDA*	<MDA*	<MDA*	<MDA*
11/15/2011 - 11/17/2011	<MDA*	<MDA*	<MDA*	<MDA*
11/10/2011 - 11/15/2011	<MDA*	<MDA*	<MDA*	<MDA*
11/08/2011 - 11/10/2011	<MDA*	<MDA*	<MDA*	<MDA*
11/04/2011 - 11/08/2011	<MDA*	<MDA*	<MDA*	<MDA*
11/01/2011 - 11/04/2011	<MDA*	<MDA*	<MDA*	<MDA*
10/27/2011 - 11/01/2011	<MDA*	<MDA*	<MDA*	<MDA*
10/24/2011 - 10/27/2011	<MDA*	<MDA*	<MDA*	<MDA*
10/21/2011 - 10/24/2011	<MDA*	<MDA*	<MDA*	<MDA*
10/18/2011 - 10/21/2011	<MDA*	<MDA*	<MDA*	<MDA*
10/13/2011 - 10/18/2011	<MDA*	<MDA*	<MDA*	<MDA*
10/11/2011 - 10/13/2011	<MDA*	<MDA*	<MDA*	<MDA*
10/06/2011 - 10/11/2011	<MDA*	<MDA*	<MDA*	<MDA*
10/04/2011 - 10/06/2011	<MDA*	<MDA*	<MDA*	<MDA*

*Minimum Detectable Activity

Units

Picocurie (pCi): A unit of measurement that tells your the rate of decay of a sample of radioactive material.
 Millirem (mrem): Equals 1/1000 of a rem (Roentgen equivalent man). Measures the biological effect (risk of illness) of a dose of radiation on a person.



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Date	Cesium - 137		Iodine - 131	
	Activity pCi/m ³	Bio Effect mrem	Activity pCi/m ³	Bio Effect mrem
09/29/2011 - 10/04/2011	<MDA*	<MDA*	<MDA*	<MDA*
09/26/2011 - 09/29/2011	<MDA*	<MDA*	<MDA*	<MDA*
09/22/2011 - 09/26/2011	<MDA*	<MDA*	<MDA*	<MDA*
09/19/2011 - 09/22/2011	<MDA*	<MDA*	<MDA*	<MDA*
09/15/2011 - 09/19/2011	<MDA*	<MDA*	<MDA*	<MDA*
09/12/2011 - 09/15/2011	<MDA*	<MDA*	<MDA*	<MDA*
09/09/2011 - 09/12/2011	<MDA*	<MDA*	<MDA*	<MDA*
09/06/2011 - 09/09/2011	<MDA*	<MDA*	<MDA*	<MDA*
09/01/2011 - 09/06/2011	<MDA*	<MDA*	<MDA*	<MDA*
08/30/2011 - 09/01/2011	<MDA*	<MDA*	<MDA*	<MDA*
08/26/2011 - 08/30/2011	<MDA*	<MDA*	<MDA*	<MDA*
08/23/2011 - 08/26/2011	<MDA*	<MDA*	<MDA*	<MDA*
08/18/2011 - 08/23/2011	<MDA*	<MDA*	<MDA*	<MDA*
08/15/2011 - 08/18/2011	<MDA*	<MDA*	<MDA*	<MDA*
08/11/2011 - 08/15/2011	<MDA*	<MDA*	<MDA*	<MDA*
08/08/2011 - 08/11/2011	<MDA*	<MDA*	<MDA*	<MDA*
08/05/2011 - 08/08/2011	<MDA*	<MDA*	<MDA*	<MDA*
08/02/2011 - 08/05/2011	<MDA*	<MDA*	<MDA*	<MDA*
07/29/2011 - 08/02/2011	<MDA*	<MDA*	<MDA*	<MDA*
07/26/2011 - 07/29/2011	<MDA*	<MDA*	<MDA*	<MDA*
07/22/2011 - 07/26/2011	<MDA*	<MDA*	<MDA*	<MDA*
07/19/2011 - 07/22/2011	<MDA*	<MDA*	<MDA*	<MDA*
07/14/2011 - 07/19/2011	<MDA*	<MDA*	<MDA*	<MDA*
07/12/2011 - 07/14/2011	<MDA*	<MDA*	<MDA*	<MDA*
07/07/2011 - 07/12/2011	<MDA*	<MDA*	<MDA*	<MDA*
07/05/2011 - 07/07/2011	<MDA*	<MDA*	<MDA*	<MDA*
07/01/2011 - 07/05/2011	<MDA*	<MDA*	<MDA*	<MDA*

*Minimal Detectable Activity

Units

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Date	Cesium - 137		Iodine - 131	
	Activity pCi/m ³	Bio Effect mrem	Activity pCi/m ³	Bio Effect mrem
06/28/2011 - 07/01/2011	<MDA*	<MDA*	<MDA*	<MDA*
06/23/2011 - 06/28/2011	<MDA*	<MDA*	<MDA*	<MDA*
06/21/2011 - 06/23/2011	<MDA*	<MDA*	<MDA*	<MDA*
06/17/2011 - 06/21/2011	<MDA*	<MDA*	<MDA*	<MDA*
06/14/2011 - 06/17/2011	<MDA*	<MDA*	<MDA*	<MDA*
06/10/2011 - 06/14/2011	<MDA*	<MDA*	<MDA*	<MDA*
06/07/2011 - 06/10/2011	<MDA*	<MDA*	<MDA*	<MDA*
06/03/2011 - 06/07/2011	<MDA*	<MDA*	<MDA*	<MDA*
05/31/2011 - 06/03/2011	<MDA*	<MDA*	<MDA*	<MDA*
05/16/2011 - 05/31/2011	<MDA*	<MDA*	<MDA*	<MDA*
05/23/2011 - 05/26/2011	<MDA*	<MDA*	<MDA*	<MDA*
05/19/2011 - 05/23/2011	<MDA*	<MDA*	<MDA*	<MDA*
05/16/2011 - 05/19/2011	<MDA*	<MDA*	<MDA*	<MDA*
05/12/2011 - 05/16/2011	<MDA*	<MDA*	<MDA*	<MDA*
05/09/2011 - 05/12/2011	<MDA*	<MDA*	<MDA*	<MDA*
05/09/2011 - 05/12/2011	<MDA*	<MDA*	<MDA*	<MDA*
05/05/2011 - 05/09/2011	<MDA*	<MDA*	<MDA*	<MDA*
05/02/2011 - 05/05/2011	<MDA*	<MDA*	<MDA*	<MDA*
04/28/2011 - 05/02/2011	<MDA*	<MDA*	<MDA*	<MDA*
04/25/2011 - 04/28/2011	<MDA*	<MDA*	<MDA*	<MDA*
04/21/2011 - 04/25/2011	<MDA*	<MDA*	<MDA*	<MDA*
04/18/2011 - 04/21/2011	<MDA*	<MDA*	0.000678	0.000003
04/14/2011 - 04/18/2011	<MDA*	<MDA*	0.000309	0.000002
04/11/2011 - 04/14/2011	<MDA*	<MDA*	0.002863	0.000011
04/07/2011 - 04/11/2011	0.000594	0.000002	0.001129	0.000006
04/04/2011 - 04/07/2011	0.00177	0.000005	0.0062	0.000023
04/01/2011 - 04/04/2011	0.001133	0.000003	0.005834	0.000022

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Date	Cesium - 137		Iodine - 131	
	Activity pCi/m ³	Bio Effect mrem	Activity pCi/m ³	Bio Effect mrem
03/31/2011 - 04/01/2011	<MDA*	<MDA*	0.0008	0.000001
03/30/2011 - 03/31/2011	<MDA*	<MDA*	0.012	0.000015
03/29/2011 - 03/30/2011	<MDA*	<MDA*	0.0008	0.000001
03/28/2011 - 03/29/2011	<MDA*	<MDA*	0.003	0.000004
03/25/2011 - 03/28/2011	<MDA*	<MDA*	0.002	0.000006
3/24/2011	<MDA*	<MDA*	0.0521	0.000066
3/23/2011	<MDA*	<MDA*	0.0986	0.000125
3/22/2011	0.0019	0.000002	0.12	0.000153
3/21/2011	<MDA*	<MDA*	0.065	0.000083

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