

Initiative 8

Promoting radiation countermeasures with a focus on children's health and food safety/quality assurance

[Outline of Approach]

- Even though Iwate Prefecture is more than 150 km away from Tokyo Electric Power Company's troubled Fukushima Daiichi Nuclear Power Plant, it has been confirmed there is a relatively high radiation dosage, particularly in the southern part of the prefecture.
- Iwate Prefecture has cooperated with municipalities to measure radiation, initiate countermeasures against decontamination and reputational damage, with a focus on ensuring safety for children, who are more susceptible to radiation contamination than adults, and food safety/quality assurance.
- In regard to the health effects on children of radiation caused by the nuclear accident, research into radiation health effects (inspection of radioactive material in urine samples) is being undertaken mainly in southern Iwate, in order to ensure that there are no adverse health effects due to the accident.
- As a major producer of agricultural, forestry and fishery products, Iwate Prefecture is working to continue to provide safe products by working towards radiation measurement in distributed food and school lunches, and promptly releasing the test results to ensure food quality and safety for consumers.
- To protect prefectural land, residents' lives, health and property from the nuclear disaster, Iwate is cooperating with municipal governments, various disaster risk reduction organizations and nuclear power-related corporations to formulate a new "Iwate Prefecture Regional Disaster Risk Reduction Plan (Nuclear Emergency Countermeasures Guide)".

Approach 1: Radiation health effects research (inspection of radioactive material in urine samples)

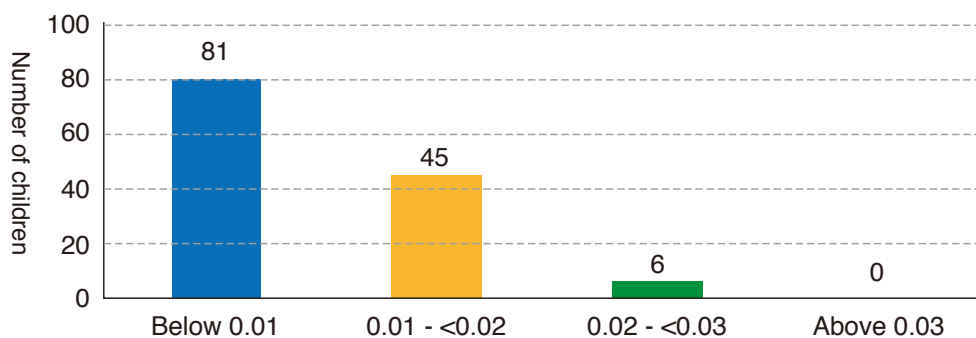
Research on extraction of radioactive substances in the urine of children between 3 and 15 years old is being conducted in southern Iwate.

The committed effective dose due to radioactive cesium (cumulative exposure in one's lifetime)* in every test subject was far below the annual 1mSv as stated by the International Commission on Radiological Protection (ICRP) in 2007.

The medical experts on emergent radiation contamination, radiation protection and public health have concluded that the "health effects of radiation are considered to be extremely small."

Research is ongoing for children tested in fiscal 2011.

* The committed effective dose (mSv), is the cumulative dose of internal exposure over a commitment period of 50 years for adults, and up to age 70 years for children.

Situation of committed effective dose due to radioactive cesium (mSv)

Iwate Prefecture radiation internal exposure health effects survey results
(fiscal 2011)

Approach 2: Measurement of radioactive concentration in prefectural produce

Together with planned inspection of agricultural, forestry and fishery products, distributed food and school lunches, Iwate Prefecture is also promptly publishing the test results as well as the progress on efforts undertaken.

In addition, to aid the understanding of basic radiation countermeasures and prevent damage to its credibility, we are working to disseminate information to people both within and outside Iwate at every opportunity through the prefecture's official website, by both publishing the Iwate Prefecture Radiation Countermeasures Report and holding risk communication assemblies.

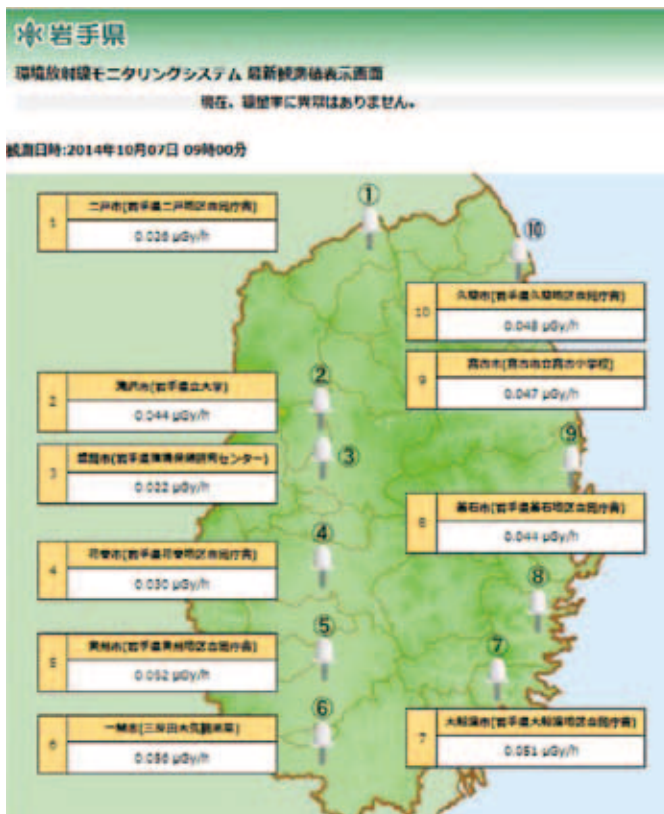
Reference value of radioactive cesium (starting from fiscal 2012)	
Food groups	Reference value (Unit: Bq / kg)
general food	100
baby food	50
dairy	50
drinking water	10



Preparation of materials for analysis



Measurements taken in equipment

Environmental radiation monitoring system HP
(Monitoring post-measurement results map)Iwate Prefecture Radiation Countermeasures Report,
2014 edition

Approach 3: Atmospheric radiation measurement

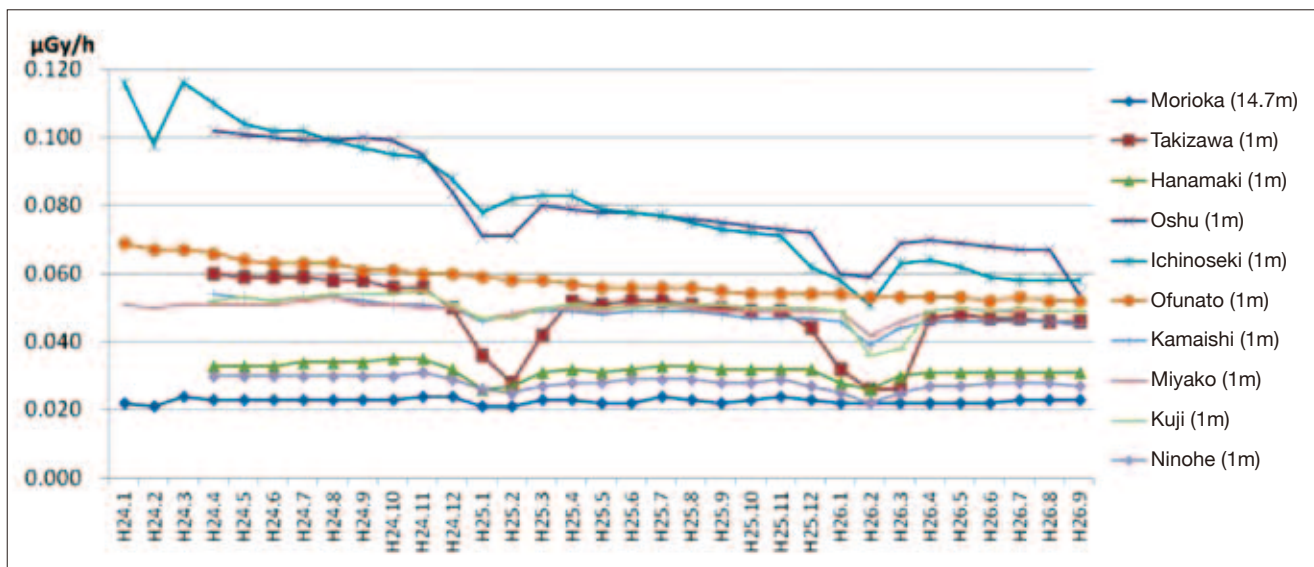
In order to understand the impact of the nuclear accident on the living environment, Iwate Prefecture has allocated monitoring posts to 10 locations within the prefecture, to measure the atmospheric radiation dose rate around the clock, and published them in real time on the Iwate Prefecture official website.

In addition to the other 55 locations measured monthly by the survey meter, prefectural schools, hospitals and other facilities are also periodically measured, and the results published on the prefecture's official website.

Since June 2013, the measurements of the 55 locations are well below 0.23 μ Sv / h, which is the decontamination national standard.

Also, artificial radioactive material has not been detected in rainwater or tap water.

We will continue with the measurements to fully understand the nuclear accident-induced impact on the living environment and to protect the health and safety of our residents.



Changes in air dose rate at monitoring posts (monthly average)



Approach 4: Formulation of Iwate Prefecture's local disaster management plan and nuclear emergency countermeasures

Realizing that there was a need to revise the methods in coping with the nuclear disaster, Iwate Prefecture formulated a new "Iwate Prefecture Regional Disaster Risk Reduction Plan (Nuclear Emergency Countermeasures Guide)".

Information gathered from nuclear power-related corporations, residents' evacuation plans, environmental monitoring and other applicable actions are prescribed in the Plan.

In order to implement the necessary measures as prescribed in the Plan in a swift manner, Iwate Prefecture has agreements with Tohoku Electric Power Co., Ltd. and Japan Nuclear Fuel Ltd to form an information contact system in the event of a nuclear disaster.



"Iwate Prefecture Regional Disaster Risk Reduction Plan (Nuclear Emergency Countermeasures Guide)" established at Iwate Prefecture Disaster Risk Reduction Council in March 2013

