31 March 2011

Report by:
Fukushima Conference for Recovery from the Nuclear-Earthquake Disaster

# Measurement of Radiation at Elementary Schools

## Objective of the Study

We are a group of citizens engaged in activities toward recovery from the earthquake and toward minimizing any further damage as soon as possible from this current disaster brought about by the Tohoku Pacific Earthquake and the subsequent Tokyo Electric Nuclear Power Plant accidents, which we have designated as a nuclear-earthquake disaster.

"Disaster prevention" must be implemented with the "worst-case scenario" in mind. The failure do so is a major cause of this current nuclear-earthquake disaster. Now is the time that we must urgently move with determination and take new measures and make preparations based on a worst-case situation. "Recovery," meanwhile, must be made with the belief in the "best-case scenario." Without that it will not be possible for the citizens of the prefecture to recover without losing hope.

For both of those, deepening understanding of the facts is essential for this nuclear-earthquake disaster. We believe what is needed is proactive and fruitful action that is free of the past custom of qualitative debate about "safety" and "crisis."

It is well known that the younger the age of the person, the more easily radiation can adversely impact their health. For this reason we felt the most urgent matter was to understand the condition of radioactive contamination in schools that are preparing for school entrance ceremonies, particularly of school yards where children play and do sports. A ground level radiation dose sampling study was conducted.

Study methodology
Study date: March 29 ~ 30, 2011
Study sites: Elementary schoolyards in Fukushima city and Kawamata-machi
Measurement method:a portable radiation reader (Geiger Counter) was place at 10 ~ 20 cm above ground.

**Radiation dose in elementary schoolyards within Fukushima city**
Results of ground-level sampling study:
http://fukurou.txt-nifty.com/fukurou/

**Views of the Fukushima Conference for Recovery from the Nuclear-Earthquake Disaster**
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The study results were obtained by use of basic/rudimentary sampling methods and the analysis period was short, therefore insufficient to reach a definitive conclusion. Based on the results which indicate a particular trend, however, and information from other material, we express the following views:

1. From information made public by Fukushima Prefecture, the Ministry of Education, Culture, Sports, Science and Technology, the Cabinet Office, the Japan Meteorological Agency, and Tokyo Electric Power, the radiation dose measured in this study is radiation that escaped into the atmosphere in the Tokyo Electric Power Fukushima Nuclear Power Plant accident and has fallen to the ground mainly through rain and snow, etc.

2. The difference in measurements between schools is thought to derive from possibly significant differences in the amount of radioactive substances that had fallen due to impact of topology, altitude, or weather; due to the subsequent movement of the radioactive matter; or both.

3. From the significant difference in measurements between the detection points, it is speculated that the radioactive matter that had fallen to the surface may be pooling. It is possible that the radioactive substances moving along the ground surface are creating areas of particularly high radiation dose – a so called “radiation pool (a small hotspot).”

4. When taking into consideration the tendency of younger people to be more susceptible to damage to their health from radiation, the significant individual differences in behavior patterns at schools, and the impact of internal exposure, further careful investigation is needed on the current state of contamination as well as the state of radiation movement. Depending on the results, cleaning and removal and other local decontamination should be expected.

5. Given that there is little time until school entrance ceremonies, investigations must be started most urgently in order to secure the safety and peace of mind of the children. Continued investigations should be expected depending on the future state of the accidents and movement of the radioactive material.

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