

Measuring radiation together with technical college students. The Japan Atomic Energy Agency (JAEA) has participated in fieldwork by Nagaoka University of Technology and Fukushima National College of Technology

JAEA provided explanation regarding recovery of the environment in Fukushima and conducted measurement training (=Photo 1) by using survey meters for the technical college students all over Japan at the end of March. One of the students that participated in the explanation and training said, "We could experience what we could do only in Fukushima through measurement training and field trip. It was great for me to be able to participate in the practical training in Fukushima".

This practical training, under the adoption of "International Nuclear Human Resource Development

Initiative Project" of Ministry of Education, Culture, Sports, Science and Technology in 2013, was conducted as "Fukushima fieldwork" by Nagaoka University of Technology and Fukushima National College of Technology. Forty-one students from 19 technical colleges and Nagaoka University of Technology participated in the training.



The students that participated in the training took a tour of Tokyo Electric Power Company (TEPCO)'s Fukushima Daini Nuclear Power Station on the first day and exchanged opinions with TEPCO's persons in charge. After that, the staff members of JAEA delivered the lecture regarding the basic knowledge about radiation and radiation measurement. Subsequently, the staff explained about the current situations of JAEA's efforts towards the recovery of the environment in Fukushima (=**Photo 2**).

Some of the students asked about the performance of the unmanned helicopter conducting radiation monitoring, and how radioactive cesium would move in future. Additionally, the city officials of Iwaki City made presentations on the monitoring for various kinds of crops, decontamination of orchards, and their efforts to eliminate the reputation damages from inside and outside of Fukushima Prefecture. The questions and answers following the presentations lasted even after 19 o'clock, which indicated high interest among the students.

On the second day, the students learned how to measure radiation through practical training, visited the temporary storage place, and observed the decontamination work in Hirono Town. Masato Matsuoto, Section Chief of Construction Division, Hirono Town Office, lectured about the damages in Hirono Town caused by the earthquake and the accident at the Fukushima Daiichi Nuclear Power Station, as well as their present status. Mr. Matsumoto explained how the Town Office let all of the residents take refuge under serious conditions where the emergency system of the Fukushima Prefecture and all of the communication means such as telephone, fax and e-mail did not work. He also explained the present activities for the radiation decontamination and efforts to prepare for the residents' return home.

After that, the students practiced measurement of air dose rates and shielding effect (=**Photo 3**) by using sodium iodide (NaI) survey meters, Geiger Müller (GM) survey meters, and gamma plotters that were prepared by JAEA and the other institutes. The training area was the place where JAEA conducted "Decontamination Pilot Project". The area consisted of playing fields, parking lots, public facilities and forests. The training was the first experience for the students, so they conducted measurements each in their own ways after dividing into groups. They also experienced shielding of radiation by using collimators made of lead plate and acrylic plate that can easily shield beta ray. The students realized the characteristics of radiation and radiation situation in the surroundings that were difficult to understand



only by lectures or the explanation in the meetings for exchange of opinions, through the radiation measurements in the real field.

After finishing the measurement training, the students visited and observed the temporary storage place (=**Photo 4**) to restore the removed materials generated in the decontamination work in Hirono Town and the slope decontamination work for neighboring roads. The temporary storage place was installed under "Decontamination Pilot Project" by JAEA, and transferred to Hirono Town. Its storing capacity is 6,000 m<sup>3</sup>. Apart from that, 4 containers (49,000 m<sup>3</sup> in total) have been constructed in order to store the materials generated in the decontamination in Hirono Town.

Hirono Town has already started the decontamination conducted by its own effort for its living sphere within the town since March, 2012. The decontamination of the areas of woods within 20 m from the dwelling houses, farms and living sphere has already reached the final stages. However, the problems regarding the decontamination of other areas of forests and the volume reduction of combustibles generated through decontamination still remain to be solved. Mr. Matsumoto, Section Chief concluded the lecture by the comment that they made request for the development of the decontamination method for forests, and for earlier construction of a facility for volume reduction through incineration to Ministry of the Environment.

JAEA has concluded a cooperative agreement with Fukushima National College of Technology to develop human resources for restoration of Fukushima, and will continue to support the training for the technical college students in the field of the measurement of radiation and others.



## TOPICS Fukushima No.47

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