



## Inspect radiation doses in overseas exports

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### **Training for inspectors issuing certificates of radiation doses was held.**

The Japan Atomic Energy Agency (JAEA) has conducted a training for inspectors who measure radiation doses in agricultural and industrial exports produced in Fukushima Prefecture etc. The training was held for the inspectors working at the harbors in Yokohama City and Osaka City, both of which are the main bases of overseas exports. In the training, three JAEA staff lectured about fundamental knowledge regarding radiation and points to be considered when they conduct inspection, and then a question-and-answer session followed.

After the accident at the Fukushima Daiichi Nuclear Power Station, Tokyo Electric Power Company, foreign countries sometimes require Japan to conduct inspections about the radiation doses in foods or industrial products before export. For agricultural and industrial exports produced in Fukushima Prefecture, Middle East or African countries request to issue certificates describing that the radiation doses are lower than those of the international safety standard or radiation regulation standard values of their countries.

Under these circumstances, Bureau Veritas Japan Co., Ltd., which is one of the members of the International Association of Classification Societies (IACS)<sup>\*\*</sup> designated by French Government

and has been conducting the inspection of ships, has been issuing the certificates by executing inspection of radiation doses in exports from Japan.

This training was conducted by JAEA for one hundred inspectors of the Bureau Veritas Japan Co., Ltd. by the request of the company. In the training, the staff of JAEA explained the fundamentals of radiation, how to handle radiation equipment, and observation of radiation by cloud chamber. The staff also described the current situations in Fukushima and the efforts of JAEA towards the restoration of Fukushima. In the question-and-answer session after the lecture, a trainee asked about the relationship between the different species of radionuclides and the inspections. Another trainee asked about what the inspectors should do if the radiation dose exceeds the regulation standard value.

### **【Example for question and answer】**

#### **○Question**

The inspection is now conducted only for Cs-137. Do we need to measure the other radionuclides?

#### **○Answer**

At the accident of Fukushima Daiichi Nuclear Power Station in March 2011, various kinds of radionuclides produced by nuclear fission in the reactor were released with leaked cooling water (water vapor). Among them, radioactive iodine (I) and cesium (Cs) that are soluble in water were dispersed in a wide area. The half-life (the period when the radioactivity becomes half) of I-131, which accounts for a large portion of the iodine released by the accident, is approximately 8 days. So the radioactivity of I-131 was reduced to 0.1% of the initial value in three months after the accident.

On the other hand, the amount of radioactive cesium emitted from the Fukushima Daiichi Nuclear Power Station was high compared with the other radioactive elements. Also the half-life of radioactive cesium is long. So, the radiation from cesium still remains. Therefore, we can estimate the radioactivity from the other nuclides by measuring the radiation from cesium. For these reasons, inspection of the contamination caused by the accident is focused on the radioactive cesium.

The lecturers stated with enthusiasm, “We wish to contribute to the elimination of reputation damage for agricultural and industrial products in Fukushima Prefecture through correct knowledge and appropriate inspection system.” Although the lecture room was quiet at the beginning of the training, it became lively with hot questions and answers at the end of the training. By receiving a lecture, the knowledge becomes deeper. By deepening the knowledge, another

question newly arises. This is the same as the lecturers. The lecturers learn a lot from the trainees from various industries or fields, and find new things.

Besides such training, JAEA will continue other communication activities such as “Question-and-Answer Session on Radiation”. JAEA will also provide many opportunities to explain to companies, communities, schools, and municipalities, including the general public. Through these activities, JAEA will continue to help a lot of people to understand the situations in Fukushima. This year 2015 marks the fifth year since JAEA started activities for the environmental restoration of Fukushima, and therefore is surely the turning point of our activities.



Letter of appreciation for dispatching the lecturers for fundamental course of radiation

※International Association of Classification Societies (IACS) is an international organization conducting the unification of interpretation of international treaties, unification of the regulations in each country, and inspection of ships. Bureau Veritas (France), American Bureau of Shipping (UAS), Lloyd’s Register of Shipping (UK) and Marine Association (Japan) are the member of the IACS.

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