

## Activities of 2024 at the events including seminars, meeting, and symposia

Since 2013, the Ministry of Health, Labour and Welfare has carried out a program to strengthen the international dissemination of radiation-related information concerning workers at TEPCO's Fukushima Daiichi Nuclear Power Plant. In 2024, we worked in the events described below to present the information we provide in this program and the booklet "Responses and Actions" (hereinafter the booklet) to experts. As a means to promote dissemination, we created posters, postcards, and flyers showing the Ministry's effort in the program.

### ◆ Participation as a presenter in the Japan-IAEA Nuclear Energy Management School (NEMS) 2024

The School of Nuclear Energy Management is training that has been provided by the International Atomic Energy Agency (IAEA) in various countries since 2010 in order to develop persons who will work as leaders in planning, operating, and managing nuclear energy. Its operation in Japan is entrusted to the Nuclear Human Resource Development Center of the Japan Atomic Energy Agency.

It was held during the period from August to September 2024, and the Ministry of Health, Labour and Welfare had an opportunity to provide information within a program held on September 2. For about one hour, they explained about the legal system to protect workers at the Fukushima Daiichi Nuclear Power Plant, responses for health management just after the accident, and the current state of management.

There were 19 participants from overseas and 13 participants from within Japan; they were workers, etc. at power companies, manufacturers, and research institutions.

Booklets, postcards, and lecture materials were printed and distributed to all the trainees in order to make the presentation more effective. A trainee commented, "The Fukushima accident is an event that influences all countries across the world, and efforts on controlling radiation and public exposure are very important for my country, too, in preparing for accidents in future."

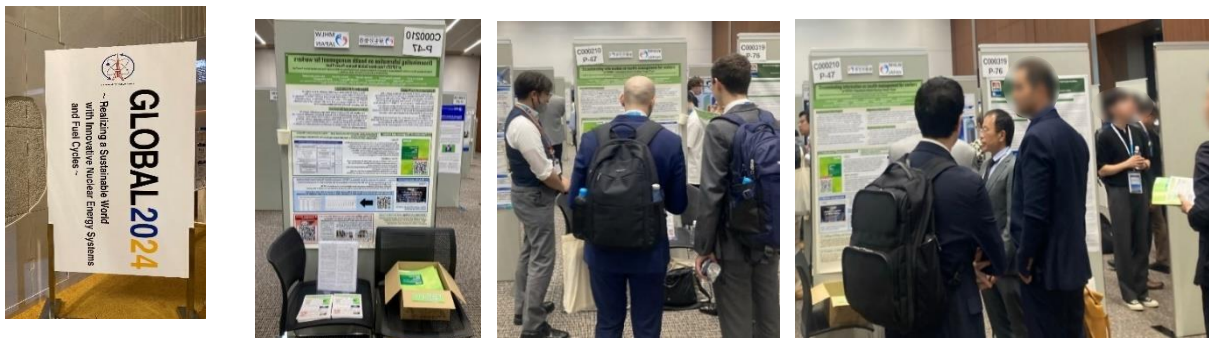


### ◆ Participation in GLOBAL2024

GLOBAL is the largest international forum that covers all aspects of nuclear technology such as nuclear fuel cycles and nuclear reactor systems. This time, we participated in the poster session of the 16th Meeting held in Tokyo and interacted with experts from various countries and experts in Japan who have international networks. Although our time was limited to two hours, from 15:30 to 17:30 on October 7 during the forum period, 25 participants heard our explanation, of which 15 were from overseas.

At the hall, we made efforts to distribute our documents and materials for dissemination. As a result, we distributed 80 booklets and 100 postcards. To Japanese participants, we distributed a summary of a Japanese translation of the booklet to deepen their understanding.

Participants from overseas praised information that we provided in this program and asked questions about the state of dose control just after the accident and the current dose control in Fukushima, and we replied appropriately. Regarding the information organized by the Ministry of Health, Labour and Welfare for the program, we gained a favorable response from Japanese participants, who made comments such as, "It is very informative." Our promotion activity at an academic conference was also highly regarded.



### ◆ Organizing an online lecture

We organized an online lecture in Tokyo for experts overseas and students from 18:30 to 20:00 on December 2. In the lecture, the Ministry of Health, Labour and Welfare explained the legal system to protect workers at the Fukushima Daiichi Nuclear Power Plant, responses for health management just after the accident, and the current state of management.

There were 47 participants, of which 38 were from overseas and 9 were from within Japan. The participants from overseas included students who were learning radiology, radiation biology, etc. at Nagasaki University, researchers and experts at research institutions and administrative agencies in countries including Vietnam, Thailand, Malaysia, Indonesia, the Philippines, Bangladesh, Kazakhstan, and Ghana, and researchers and experts of IAEA. Their areas of expertise were wide-ranging, including radiation protection, radiation metrology, radiation biology, nuclear engineering, nuclear safety, and nuclear regulations.

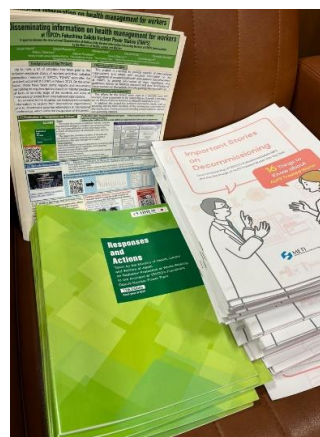
Countries planning to introduce nuclear energy, and experts at a research institution having a research reactor for radiation application showed a great interest in Japan's responses at the time of the accident and the state of improvement until the present day.

Participants expressed their gratitude for such an opportunity to share information.

### ◆ Other: Dissemination by distributing documents and materials

- IAEA General Conference at Vienna

We distributed 130 flyers to attendees at an event held by the Ministry of Economy, Trade and Industry on September 17. We placed 10 booklets, which were allowed to be taken freely, and 9 of them were taken.



- Atomic Energy Society of Japan, Fall Meeting

For dissemination to Japanese experts and students, we placed 60 postcards at a freely available section for documents at the conference hall.



Posters (A1 size)

# Disseminating information on health management for workers at TEPCO's Fukushima Daiichi Nuclear Power Plant


Project to Enhance the International Dissemination of Radioactivity-Related Information Concerning Workers at TEPCO Holdings' Fukushima Daiichi Nuclear Power Plant  
 Commissioned by the Ministry of Health, Labour and Welfare

Koichi Hirachi<sup>1</sup>      Satoshi Fukushima<sup>2</sup>      Makoto Akashi<sup>3</sup>      Takeshi Jimoto<sup>2</sup>      Munehiko Kowatan<sup>4</sup>  
 Noboru Takamura<sup>5</sup>      Makoto Funakoshi<sup>6</sup>      Hiroshi Okamoto<sup>7</sup>      Akari Kawaguchi<sup>8</sup>  
<sup>1</sup>Ministry of Health, Labour and Welfare (MHLW)    <sup>2</sup>Tokyo Healthcare University    <sup>3</sup>The University of Tokyo    <sup>4</sup>National Institutes for Quantum Science and Technology (QST)  
<sup>5</sup>The Atomic Bomb Disease Institute, Nagasaki University    <sup>6</sup>Japan Atomic Energy Relations Organization (JAERO)

Background of the Project	Objective of this project
<p>Up to now, a lot of attention has been paid to the radiation exposure status of workers and their radiation protection measures at FDNPP soon after the accident occurred at TEPCO's Fukushima Daiichi Nuclear Power Plant (hereinafter referred to as "FDNPP") in March 2011. On the other hand, there have been some reports and documents containing wrong descriptions based on misinterpretation of facts at an early stage of the accident, and some of them were provided from international organizations.</p> <p>In response to this situation, we endeavored to provide information to experts from international organizations and to disseminate accurate information at international conferences, which led to the inauguration of this project.</p>	<p>This project is intended to provide experts of international organizations and others with accurate information on the management of occupational health and radiation dose of workers at FDNPP by posting information on laws, regulations, and guidelines related to radiation exposure and dose distribution of these workers on the website, thereby gaining international trust.</p>
Achievements and Outcomes	
<p>The efforts for this project were cited as a scientific basis for workers dose assessment in the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) 2020/2021 report.</p> <p>In addition, the project has achieved remarkable results, such as receiving interest from members of the international committee for the distribution of information on awarding compensation to workers occupationally-exposed.</p>	

**[1] Publication of "Responses and Actions"**

- Publication date: Around February each year
- Place of publication: Website
- Method of dissemination: Information will be sent to e-mail addresses registered for information supplement.



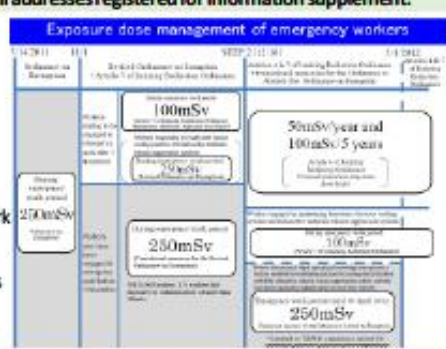
**Topic**

The report documents, in a factual manner, how the dose limit for emergency workers was revised and how they overcame difficulties at the initial stages of the accident amid confusion of information soon after the accident.

The report also provides a timeline of the MHLW's and TEPCO's response while the tsunami caused a breakdown in the dose management system.

**Main contents**

- Raise of the radiation exposure dose limit for emergency work
- Countermeasures against heat stroke, which occurred frequently in post-accident work
- Radiation protection measures for decontamination workers
- Internal exposure measures
- Status of awarding compensation to workers to date
- Radiation exposure dose distribution of workers at FDNPP



**Exposure dose management of emergency workers**

Timeline showing dose limits: 100mSv, 250mSv, 500mSv, and 1000mSv, along with corresponding regulations and compensation information.

**[2] Website management**


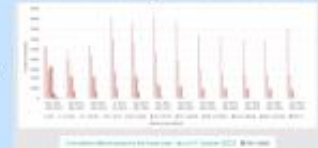
**In Focus - Radiation Protection at Works Relating to TEPCO's Fukushima Daiichi Nuclear Power Plant Accident**

- Posting guidelines set by the MHLW and other materials on the current state of occupational health and safety management.
- Monthly updating radiation exposure dose distributions of workers in HTML.

In the future, the transition from the time of the accident will also be included in the graph.




★ The yearly dose distribution from March 2011 to December 2022 is shown as PDF data and graph.

★ The monthly dose distribution from March 2011 to September 2023 is shown as raw data. Available for download.

Year	TEPCO	Contractors	Total
1 (2011-Mar)	40	88	128
2 (2011-Mar)	301	531	832
3 (2011-Mar)	437	863	1300
4 (2011-Apr)	238	824	1062
5 (2011-Jul)	3990	1346	5336
6 (2011-Aug)	2778	1783	4561
7 (2011-Sep)	637	782	1419
8 (2011-Mar)	2211	2989	5200
9 (2011-Mar)	2878	1531	4409

<https://www.mhlw.go.jp/english/topics/2011eq/workers/>

[3] Holding briefings and technical tours	[4] Provision of information
<ul style="list-style-type: none"> <li>- Foreign media and international organization officials visited FDNPP and directly checked the situation.</li> <li>- The improving work environment and radiation exposure status of workers were introduced.</li> </ul>	<p><b>Holding online lectures (in around December)</b></p> <p>How does MHLW manage the health of workers at decommissioning sites? Introducing actual initiatives!</p> <p>Radiation dose management from the beginning of the accident to the present, measures against heat stroke, follow-up for people exposed to high doses, etc.</p>  <p>★ A "Certificate of Participation" issued by the MHLW will be sent to those who request it.</p>
<p>We send out information on the website updates and project events to officials of overseas international organizations via e-mail.</p> <p>(205 people registered, as of Jul 2024)</p>	<p>★ Registration form for e-mail delivery</p>  

Cards (A5 size)

## Disseminating information on health management for workers at TEPCO's Fukushima Daiichi Nuclear Power Plant

Project to Enhance the International Dissemination of Radioactivity-Related Information Concerning Workers at TEPCO Holdings' Fukushima Daiichi Nuclear Power Plant Commissioned by the Ministry of Health, Labour and Welfare

The contents of this project are presented here. Please make use of it.

### Publication of "Responses and Actions"

- Publication date: Around February each year
- Place of publication: Web site of this project



#### Topic

The report documents, in a factual manner, how the dose limit for emergency workers was revised and how they overcame difficulties at the initial stages of the accident amid confusion of information soon after the accident.

The report also provides a timeline of the MHLW's and TEPCO's response while the tsunami caused a breakdown in the dose management system.

#### Digital version

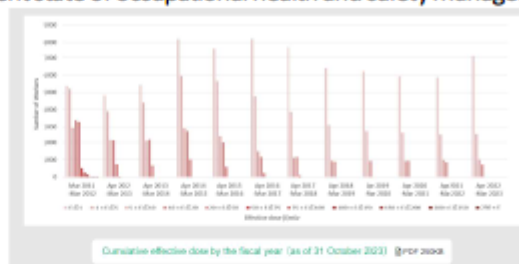


### Website management

### In Focus- Radiation Protection at Works Relating to TEPCO's Fukushima Daiichi Nuclear Power Plant Accident



Posting guidelines set by the MHLW and other materials on the current state of occupational health and safety management.



★The yearly dose distribution from March 2011 to December 2022 is shown as PDF data and graph.

<https://www.mhlw.go.jp/english/topics/2011eq/workers/>



### Holding online lectures ! (in around December)

How does MHLW manage the health of workers at decommissioning sites?

Introducing actual initiatives!

Radiation dose management from the beginning of the accident to the present, measures against heat stroke, follow-up for people exposed to high doses, etc.



Source: Tokyo Electric Power Company Holdings

★ A "Certificate of Participation" issued by the MHLW will be sent to those who request it.



★Registration form for e-mail delivery



Contact Details: Japan Atomic Energy Relations Organization (Secretariat in FY2024)  
 Phone Number:+81-3-6891-1573 Email Address:kokusai@jaero.or.jp