Events and highlights on the progress related to recovery operations at Fukushima Daiichi Nuclear Power Station

November, 2015

Section 1: Executive summary

(1) The fact sheet uploaded in the link below is a summary of the current situation
http://japan.kantei.go.jp/ongoingtopics/waterissues.html

(2) Information update from the previous fact sheet

The following information was updated from the previous fact sheet: 1) important events that happened after February 2014 were added and 2) progresses of "Preventive and Multi-Layered" measures are reflected.

(3) The previous report is available online at
https://www.iaea.org/sites/default/files/highlights_japan_082015.pdf

Section 2: Current conditions and forecast onsite

2.1: Relevant information pertaining to issues related to the recovery (including spent fuel and fuel debris management)

(1) New Information

(i) Newly added topics (in the past months since August)

Newly added topics in the past months since August are as follows. For additional details of these issues, please refer to the "related information" section.

- Situation of storing and treatment of accumulated water including highly concentrated radioactive materials at Fukushima Daiichi Nuclear Power Station (Tokyo Power Electric Company (TEPCO)) (September 25, 2015)
  http://www.tepco.co.jp/en/press/corp-com/release/2015/1261021_6844.html
- Rainwater overflow from typhoon flooding has been halted, impact appears minor (TEPCO) (September 12, 2015)
  http://www.tepco.co.jp/en/press/corp-com/release/2015/1259822_6844.html
- Subdrain & groundwater drain operations set to begin at Fukushima Daiichi, should lead to further protection of the ocean (TEPCO) (September 2, 2015)
  http://www.tepco.co.jp/en/press/corp-com/release/2015/1259088_6844.html
- Analysis results regarding the water quality of the groundwater pumped up by sub-drain and purified at Fukushima Daiichi Nuclear Power Station (Ministry of Economy, Trade and Industry (METI)) (September 2, 2015)
  http://www.meti.go.jp/english/earthquake/nuclear/decommissioning/pdf/20150902_01a.pdf
- Detailed analysis results regarding the water quality of the groundwater being pumped out for by-passing at Fukushima Daiichi Nuclear Power Station (METI) (September 1, 2015)

http://www.meti.go.jp/english/earthquake/nuclear/decommissioning/pdf/20150901_01a.pdf

- Improvements in water management, disclosure, working conditions noted by monitoring committee (TEPCO)(August 24, 2015)
  http://www.tepco.co.jp/en/press/corp-com/release/2015/1258281_6844.html
- Revision of "Measures for Mid-term Risk Reduction at TEPCO's Fukushima Daiichi NPS (as of August 2015) (NRA) (August 5,2015)
  https://www.nsr.go.jp/english/library/nraplans_01.html

(ii) Notable topics among recent updates

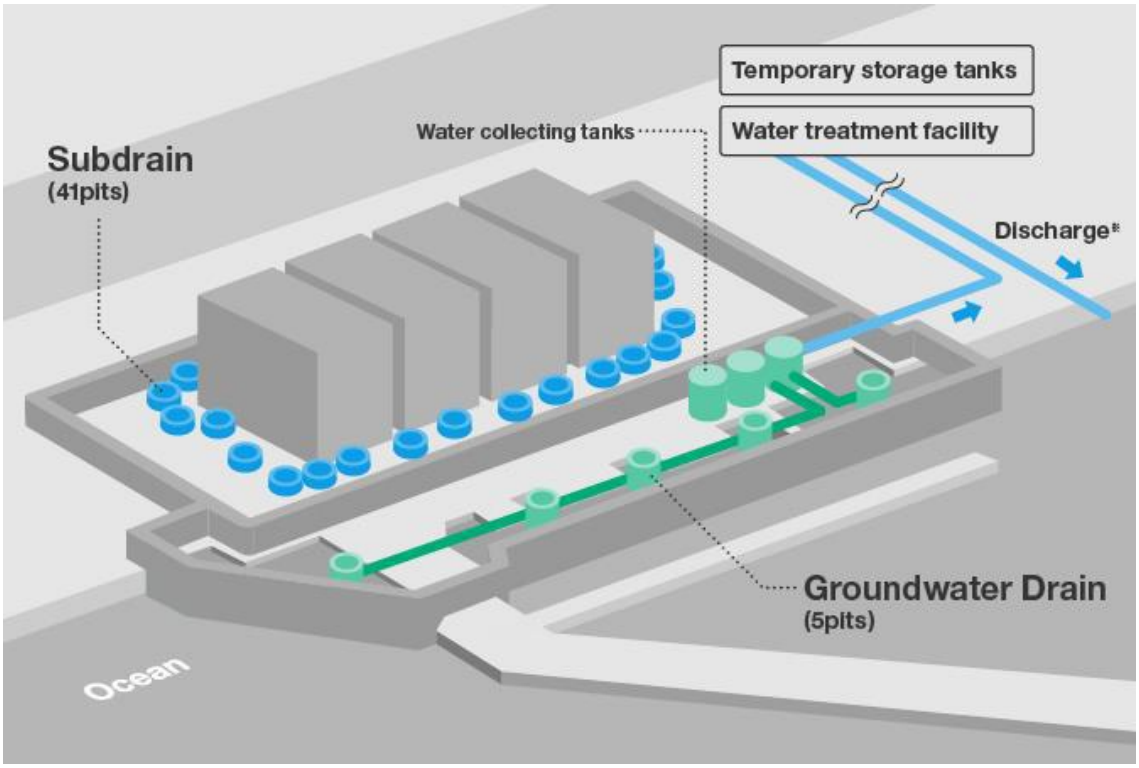
(a) Start of the subdrain and groundwater drain system operation

As part of a major initiative for contaminated water management, on September 3rd, TEPCO started to pump up groundwater from the subdrain and groundwater drain. On September 14th, TEPCO also started discharge of purified groundwater into the ocean. Reducing the amount of highly contaminated water, these steps bring forward Japan's contaminated water management at Fukushima Daiichi NPS.

This operation is to pump up groundwater from the 41 wells installed in the vicinity of the reactor buildings (the subdrain) and the 5 wells installed in the bank protection area by the ocean (the groundwater drain) in order to reduce groundwater inflow into the reactor buildings. The pumped-up groundwater is purified through special facilities and then discharged into the inside of the port. Discharge is conducted only after it was confirmed that purified groundwater meets the operational target, which is more stringent than the other quality standards, such as density limit specified by the Reactor Regulation and WHO guideline for drinking water.

On September 14th, TEPCO conducted the first discharge of purified groundwater from temporary storage tanks into the port area. Approximately 4,000 tons of purified groundwater, which had been pumped up and stored in a test operation last year, was discharged during 14th to 18th. According to Nuclear Regulation Authority (NRA) and TEPCO, the radiation level of seawater near Fukushima Daiichi NPS remains low and stable, and no significant change in the monitoring results has been found, even after discharge was conducted.

At Fukushima Daiichi NPS, it was a serious problem that a large amount of groundwater is flowing into the reactor buildings and turning into contaminated water every day. Since last May, however, TEPCO has conducted the groundwater bypass, a measure to pump up groundwater from wells on the mountain side of the site and to discharge it into the ocean. Combined with this measure, the subdrain and groundwater drain system is expected to reduce the groundwater inflow into the reactor buildings to half, from the current approximately 300 tons to approximately 150 tons per day.



(b) Closing of the seaside impermeable wall

In the wake of the subdrain and groundwater drain system operation started on September 3rd, TEPCO also started closing work of the seaside impermeable wall on September 10th, which was completed on October 26th. Significantly reducing outflow of groundwater into the ocean, completion of the seaside impermeable wall will further advance contaminated water management at Fukushima Daiichi NPS.

The seaside impermeable wall, approximately 780 meters long and composed of 594 steel pipes with a diameter of 1.1 meters and a length of 30 meters, is installed around the bank protection area near the rector buildings for the purpose of blocking groundwater flowing from the site of Fukushima Daiichi NPS into the port area. It also enables to reduce the risk of contaminated water flowing into the ocean in case of any leakage. Though construction of the wall initially started from May 2012, 10 meters of the wall had been left opened. This time, as pumping up of groundwater from the subdrain enabled TEPCO to control the groundwater level of the site, entire closing of the wall became possible.

It is observed that the groundwater levels in the landside area of the seaside impermeable wall are rising. This increase of the water level proves that the closing of the wall has been effective to block the inflow of groundwater to the port area. In conjunction with this increase of the water level, the monitoring data indicates that the radiation level of the water in the port area is in decrease. Still, a close monitoring and analysis on the seawater in the port area will be continued.

(c) Overflow of rainwater from Drainage K

Due to heavy rain from a typhoon, rainwater in Drainage K overflowed into the ocean on September 9th and 11th. However, little impact on the radiation level outside the port was observed.

According to TEPCO, some part of rainwater in Drainage K was overflowing into the sea area outside the port in the early morning of September 9th and 11th, crossing over dikes placed in the drainage channel, because of heavy rain brought by a typhoon.

TEPCO has been transferring rainwater into the inside of the port by using 8 pumps, as a tentative measure before completion of the shifting work of Drainage K, so as to lead the drainage to the inside of the port. However, the precipitation temporarily surpassed the pump's capacity to transfer, even though the pumps were working normally.

Some media overseas reported that it was contaminated water that leaked into the ocean. However, water in Drainage K is rainwater that slightly contains radioactive materials and is never mixed with highly contaminated water in the reactor buildings.

While the total volume of leaked rainwater cannot be measured, the results of analysis show that the radiation level outside the port remains low enough compared to the density limit specified by the Reactor Regulation.

In the wake of this incident, the government has directed TEPCO to continue to monitor the situation and to implement the current shifting work of the drainage channels as soon as possible.

(d) Completion of removal of the Unit 1 roof panels

On October 5th, TEPCO safely completed removal work of the roof panels of the Unit 1 building cover. This is an important step toward fuel removal from the spent fuel pool of the reactor building.

The reactor buildings of the Unit 1, 3 and 4 were damaged by hydrogen explosion at the time of the accident. Whole Unit 1 reactor building was covered in October 2011 to prevent scattering of radioactive materials. However, in order to retrieve the fuel from the spent fuel pool, it is necessary to dismantle the cover and remove rubbles piled up on the upper part of the reactor building due to a hydrogen explosion.

TEPCO started removal work of the roof panel on July 28th this year. During this operation, according to the company, scattering of dust containing radioactive materials was not observed.

In the next step, TEPCO plans to remove the side panels of the building cover and also to investigate the situation of rubbles on the operating floor, the upper part of the building. Measures will be continuously taken to prevent radioactive materials from scattering, such as spraying anti-scattering agent and installing windbreak seats for rubble removal work.

This dismantling work of the cover is aimed to be completed within FY2016 and rubble removal is scheduled to start for FY2016. Then, fuel removal will start FY2020, if the process goes smoothly. In the process of decommissioning, fuel removal is important work to reduce risks of radioactive materials.

*FY in Japan: April 1st to March 31st

(g) Interim Storage Facility

(1) Necessity of the Interim Storage Facility (ISF)

Large amount of contaminated soils and waste have been generated during the decontamination work in Fukushima Prefecture. This contaminated soil has been stored at temporary storage sites. Since it is currently difficult to specify the method of final disposal, it is necessary to establish ISF for safe and secured storage until final disposal facilities become available.

(2) Recent updates of this item

On October 3, 2014, the amendment of Japan Environmental Safety Corporation

(JESCO) law on the final disposal of contaminated soil and waste outside Fukushima prefecture was approved by the Cabinet and was submitted to the Diet. It was enacted in November 2014.

On November 14, 2014, Ministry of the Environment (MOE) announced the Basic Transportation Plan and finalized the Transportation Implementation Plan on January 28, 2015. From December 2014 to January 2015, Okuma and Futaba towns made each decision to accept the construction of the ISF.

The construction of stock yards started on February 3, 2015.

On February 8, the Minister of the Environment and the Minister of Reconstruction Agency explained to the Governor of Fukushima the progress related to the five conditions which should be confirmed before the transportation of soil to ISF.

The Governor of Fukushima and both mayors of Okuma and Futaba conveyed the acceptance to the Ministry of the Environment and Reconstruction Agency on February 25.

Then "Pilot transportation" of soil from temporary storage sites to the stock yards started in Okuma on March 13 and sequentially in other municipalities. This "Pilot transportation" will be implemented for about a year to confirm safe and secure transport towards full-scale transportation of a large quantity of removed soil.

(iii) Information update on the decommissioning process

Progress status report is published monthly by METI. This report summarizes the recent progress on the decommissioning made after the last report. The summary can be seen under the following URL:

- The Progress status report as of July 30, 2015 is available online

http://www.meti.go.jp/english/earthquake/nuclear/decommissioning/pdf/20150730_e.pdf

The report describes recent updates on the decommissioning process such as start of dismantling of Unit 1 building cover roof panels and completion of installation of frozen pipes on the mountain side. The following picture shows a part of the recent progress.

Pictures1: Removal of roof panel

- The Progress status report as of August 27, 2015 is available online

http://www.meti.go.jp/english/earthquake/nuclear/decommissioning/pdf/20150827_e.pdf

The report describes recent updates on the decommissioning process such as completion of removal of the fuel-handling machine (FHM) from Unit 3 and inspection of the status of rubble inside the Unit 3 SFP using underwater camera. The following pictures show some parts of the recent progress.

Picture 2: Removal of the FHM

Picture 3: Inspection on rubble inside the SFP

(2) Related information

Information provided in the links below includes the description and the schedule of preventive and multi-layered measures for the contaminated issues in order to remove the source of contamination, isolate groundwater from contamination, and prevent further leakage of contaminated water. A summary and a full report are available at the following links.

(Summary)

http://www.meti.go.jp/english/earthquake/nuclear/decommissioning/pdf/131210gaiyou_E.pdf

(Full report)

http://www.meti.go.jp/english/earthquake/nuclear/decommissioning/pdf/131210report_E.pdf

As for other relevant issues, "METI's website for decommissioning" covers various issues in detail including progress status and future challenges of the Mid-and-Long-Term Roadmap toward the Decommissioning of TEPCO's Fukushima Daiichi NPS:

- METI's website for decommissioning
  http://www.meti.go.jp/english/earthquake/nuclear/decommissioning/index.html
  For NRA's recent news releases, please see the following link.
  http://www.nsr.go.jp/english/newsrelease/
  For TEPCO's activities, please see TEPCO's website.
- TEPCO's website for current situation of Fukushima Daiichi and Daini NPSs
  http://www.tepco.co.jp/en/nu/fukushima-np/index-e.html

2.2 Recent incidents and progress (in the past months since August)

Related information:

- TEPCO prepare for typhoons. heavy rains by reconfiguring Fukushima drainage (TEPCO) (August 18, 2015)
  http://www.tepco.co.jp/en/press/corp-com/release/2015/1257823_6844.html
- Drainage overflow from typhoon flooding has been halted, impact appears minor (TEPCO) (September 12, 2015)
  http://www.tepco.co.jp/en/press/corp-com/release/2015/1259822_6844.html

Section 3: Other measures for decommissioning and contaminated water issues

(a) Effect on reduction of the groundwater inflow to the reactor building was also brought about by "groundwater bypassing" at Fukushima Daiichi NPS

(1) Recent update

TEPCO announced this in September 2014 that the operation of "groundwater bypassing" showed effects and the amount of groundwater flowing into the reactor buildings was decreased by 80m³ at the maximum per day.

(2) Conduct of "groundwater bypassing"

"Groundwater bypassing" is one of the countermeasures to reduce the volume of groundwater flowing into the buildings at TEPCO's Fukushima Daiichi NPS. This countermeasure is to pump out groundwater from wells at the mountainside area beside the reactor buildings and this groundwater will be released to the sea (bypassing) after passing the quality analysis survey. TEPCO and the Government of Japan have been explaining the content, function, and its effect of this countermeasure to the local stakeholders, such as Fukushima prefectural government and fishermen's unions.

In April 2014, the fishermen's unions showed their intention to accept the plan of conducting this groundwater bypassing. In addition, from April 9, TEPCO has been making effort to prepare for the actual release of the groundwater such as water quality analysis of the groundwater being pumped up. On May 16, TEPCO and the Government of Japan published water quality analysis results conducted by three different analysis agencies. These results show that the radioactive levels of sampled water were substantially below the operational targets (each of the target is set by TEPCO and these operational targets are set at the very low level compared to the legal discharge limits). As for the detailed analysis results of these three agencies, please refer to the table shown in the following link:
http://www.meti.go.jp/english/earthquake/nuclear/decommissioning/pdf/21140514_01a.pdf

Following the fact that TEPCO and the Government of Japan have reported and explained about these detailed analysis results to the local stakeholders, the Government of Japan decided to announce that the groundwater bypassing would be operated (i.e. groundwater being pumped out will be released to the sea) on May 21 2014.

Whenever TEPCO releases groundwater, government officials (*) will check the entire process of the release. In addition to this, TEPCO and the Government of Japan will publish detailed analysis results of the groundwater being pumped up on a regular basis in order to ensure transparency.

* Staff from the Intergovernmental Liaison Office for Decommissioning and Contaminated Water Management near Fukushima Daiichi Nuclear Power Station.

Following this operation, the radioactive analysis of the sea water was conducted by TEPCO (the sea water used for this analysis was sampled during and after the operation at the nearest sea water sampling post from the groundwater releasing point) and no significant change of radioactivity was observed in the analysis.

For further detail of the analysis result, please refer to the following TEPCO's website:
http://www.tepco.co.jp/en/nu/fukushima-np/f1/smp/2014/images/gw_drainage_140523-e.pdf

Section 4: Monitoring results

4.1: Onsite monitoring results reported by TEPCO

-4.1.1 Radionuclide releases to the atmosphere

(1) Outline of the item

On-going monitoring of the air at the site of Fukushima Daiichi NPS has detected no significant increase in radiation levels.

(2) Noteworthy change in data during the period from August to September 2015

The monitoring result is ND (ND indicates that the measurement result is below the detection limit). In this regard, no announcement has been made by TEPCO for this item.

(3) Monitoring result data

The monitoring results in the air at the site of the NPS are available in the following webpage (Please see the calendar titled "Air on the premises of Power Station"). This monitoring result is updated every day on this site.

http://www.tepco.co.jp/en/nu/fukushima-np/f1/smp/index-e.html

- 4.1.2 Radionuclide releases to the sea (including groundwater monitoring results)

(1) General outline of the item

Results of radioactive nuclide analysis are published for the samples of groundwater at the east side of the Unit 1-4 turbine buildings and seawater at the port in order to monitor the source and the extent of the radioactive materials in the groundwater, and to determine whether the materials included in groundwater affect the sea.

Increased radioactivity has been observed within the port, in an area smaller than 0.3 km^2. However, ongoing monitoring in the surrounding ocean area has detected no significant increase in radiation levels outside the port or in the open sea, and has shown that radiation levels in these areas remain within the standards of the World Health Organizations guidelines for drinking water.

(2) TEPCO's report on radionuclide releases to the sea

TEPCO issued a report which includes progress and status of the ground improvement by sodium silicate. This report is available online: http://www.tepco.co.jp/en/nu/fukushima-np/handouts/2015/images/handouts_150109_02-e.pdf

In addition, the historical data of radioactive concentration in the groundwater sampled at the Unit 1-4 bank protection are available online with the csv format. The data from north of Unit 1, between intakes of Units 1 and 2, between intakes of

Units 2 and 3, and between intakes of Units 3 and 4 are available at the following sites respectively.

http://www.tepco.co.jp/en/nu/fukushima-np/f1/smp/2014/images/2tb-east-newest02-e.csv

http://www.tepco.co.jp/en/nu/fukushima-np/f1/smp/2014/images/2tb-east-newest03-e.csv

http://www.tepco.co.jp/en/nu/fukushima-np/f1/smp/2014/images/2tb-east-newest04-e.csv

http://www.tepco.co.jp/en/nu/fukushima-np/f1/smp/2014/images/2tb-east-newest05-e.csv

(3) Related information

Analyses regarding radionuclide releases are conducted in different parts of the sea (outside of the port, inside of the port, and inside of the Unit 1-4 water intake channel). Results of these analyses and analysis results of groundwater are as follows (the information is automatically updated daily).

- Analysis Results of Seawater (Outside of the Port)
  http://www.tepco.co.jp/en/nu/fukushima-np/f1/smp/2015/images/seawater_map-e.pdf
- Analysis Results of Seawater (Inside of the Port)
  http://www.tepco.co.jp/en/nu/fukushima-np/f1/smp/2015/images/intake_canal_map-e.pdf
- Analysis Results of Seawater (Inside of Unit 1-4 Water Intake Channel)
  http://www.tepco.co.jp/en/nu/fukushima-np/f1/smp/2015/images/2tb-east_map-e.pdf
- Analysis Results of Groundwater (Unit 1-4 Bank Protection)
  http://www.tepco.co.jp/en/nu/fukushima-np/f1/smp/2015/images/tb-east_map-e.pdf

4.2: Offsite monitoring results

1. Monitoring results of air dose rates in the 20 Km radius zone around Fukushima Daiichi NPS

(1) Outline of the item

The monitoring of air dose rates in the 20 Km radius zone around Fukushima Daiichi NPS has been conducted at 50 points in the zone (the types of detectors used for monitoring are NaI scintillation detectors and/or ionization chamber type survey meters). The air dose rates in the 20 Km radius zone have continuously been decreasing since May 2011 (after the accident at Fukushima Daiichi NPS on March 11, 2011).

(2) Noteworthy updates in the past months

As described in (1) above, the air dose rates in the 20 Km radius zone around the NPS have been in a downward trend, and the monitored air dose rates were stable from August 2015 to September 2015. Based on these results, any further

announcement was not made on this item (e.g., significant increase of air dose rates in the 20 Km radius zone) during this period.

(3) Monitoring results

Each of the following URL leads to the monitoring results of air dose rates in the 20 Km radius zone around Fukushima Daiichi NPS from August 2015 to September 2015:

- August: http://radioactivity.nsr.go.jp/en/list/239/list-201508.html
- September: http://radioactivity.nsr.go.jp/en/list/239/list-201509.html

The following URL leads to an archive of monitoring results:

http://radioactivity.nsr.go.jp/en/list/239/list-1.html

2. Monitoring results of dust in air and soil in the 20 Km radius zone around Fukushima Daiichi NPS

(1) Dust

The monitoring results of dust obtained from May 2015 to July 2015 show that the concentrations of dust were either ND (ND indicates that the measurement result is below the detection limit) or very low. Based on the results, any further announcement was not made on this item (e.g., significant increase of the concentrations of dust) during this period.

The following URL leads to the monitoring results (dated 10 July, 2015) of dust:

http://radioactivity.nsr.go.jp/en/contents/10000/9991/24/223_20150710.pdf

(2) Soil

Radiation monitoring of soil is conducted as appropriate. The latest monitoring of soil was conducted in October 2015. The following URL leads to the monitoring results (dated October 19 21, 2015) of soil:

http://radioactivity.nsr.go.jp/en/contents/11000/10364/24/495_20151019.pdf

(3) Previous monitoring results

The following URL provides the previous monitoring results (from April 2011 to the present) of dust in air:

http://radioactivity.nsr.go.jp/en/list/240/list-1.html

3. Estimated values and measured values of environmental radioactivity at 1m height from the ground surface in other prefectures (46 prefectures in total) other than Fukushima Prefecture

(1) Outline

The air dose rates measured using the monitoring stations installed in other prefectures have mostly returned to the equal level of the air dose rates before the accident.

(2) Updates from August 2015 to September 2015

The estimated and measured values were relatively stable from August 2015 to September 2015. Based on the results, any further announcement was not made on this item (e.g., significant increase of the estimated and measured values) during this period.

(3) Monitoring results

The following URL leads to the estimated and measured values, and new monitoring results are uploaded nearly every day:
http://radioactivity.nsr.go.jp/en/list/192/list-1.html

4.3: Sea area monitoring results of seawater, sediment and biota

(1) Outline

Sea area monitoring results in the area around Fukushima Daiichi NPS have indicates that the radiation levels outside the port or in the open sea have been relatively stable.

(2) Updates during the period from August 2015 to September 2015

The sea area monitoring results from August 2015 to September 2015 were relatively stable as described in (1) above. Based on the results, any further announcement was not made on this item (e.g., significant increase of sea area monitoring results) during this period.

(3) Related information

Sea area monitoring is classified to be conducted in 5 areas (Area 1: Sea area close to TEPCO's Fukushima Daiichi NPS, Area 2: Coastal area, Area 3: Off-shore area, Area 4: Outer sea area, and Area 5: Tokyo bay area), and this information is available under the "Monitoring of Sea Water" section of the NRA webpage entitled "Readings of Sea Area Monitoring". This webpage also includes monitoring results of sediment under the "Monitoring of Marine Soil" section, and it is also classified into 4 areas (Area 1: Sea area close to TEPCO's Fukushima Daiichi NPS, Area 2: Coastal area, Area 3: Off-shore area, Area 4: Tokyo bay area). The NRA has been providing a weekly report on sea area monitoring results. The "Readings of Sea Area Monitoring" webpage covers various issues and the webpage's information is periodically updated several times a week. The following URLs lead to this webpage and the weekly report on sea area monitoring results:

- Readings of Sea Area Monitoring
  http://radioactivity.nsr.go.jp/en/list/205/list-1.html
- Sea Area Monitoring (Weekly Report)
  http://radioactivity.nsr.go.jp/en/list/295/list-1.html
- F1 issues (NRA is providing monitoring results weekly to the IAEA which are openly shared with the public)

http://www.nsr.go.jp/english/f1issues/index.html
http://www.iaea.org/newscenter/news/2013/japan-basic-policy-full.html

Section 5: Off-site Decontamination

5.1: Outline

Off-site decontamination is in operation since the accident of the TEPCO Fukushima Daiichi NPS. Currently, target areas of decontamination are categorized as below.

5.1.1 Special Decontamination Area (SDA)

National Government is responsible for development of plans and implementation of measures for decontamination of SDA. SDA consists of the previous “restricted areas” located within a 20 km radius from the NPS and the previous “deliberate evacuation areas” which are beyond 20km radius from the NPS and where the additional annual effective dose for individuals was anticipated to exceed 20 mSv in the first year after the accident.

5.1.2 Intensive Contamination Survey Area (ICSA)

ICSA is the area where the air dose rate is over 0.23 uSv/h (equivalent to over 1 mSv/y of additional dose under a certain condition). At first, 104 municipalities in 8 prefectures were designated as ICSA. Decontamination for the area is implemented by each municipality with financial and technical supports by the national government.

5.2: Current status

5.2.1 SDA

- Development of decontamination plans for all 11 municipalities were completed.

- Decontamination work for 4 municipalities (Tamura-city, Kawauchi-village, Naraha-town, Okuma-town) have been completed in accordance with the decontamination plans and decontamination of residential areas have been completed in further 3 municipalities (Katsurao-village, Kawamata-town and Iitate-village) at the end of June 2015.

5.2.2 ICSA within Fukushima Pref. (Outside of Fukushima Pref.) (As of the July31, 2015)

- Approximately 90% (100% in other prefectures as of June30, 2015) of planned decontamination projects for public facilities have been completed.

- Approximately 60% (99% in other prefectures as of June30, 2015) of planned decontamination projects for residential houses have been completed.

5.3: Related information

The MOE has also been conducting the technology demonstration projects for decontamination, aiming to promote the development of such technologies for effective and efficient decontamination and for volume reduction of removed soil and wastes. The results of demonstration are to be published with the evaluation from the viewpoints of effectiveness, economic efficiency and so on.

The following URL leads to the web page of MOE's, which post information related to Decontamination:

- Measures for Decontamination of Radioactive Materials Discharged by the accident at the TEPCO's Fukushima Daiichi NPS.

http://josen.env.go.jp/en/

Section 6: Food products

6.1: Summary of testing

Food samples are routinely monitored to ensure that they are safe for all members of the public.

During the month of August 2015, 31,607 samples were taken and analysed. Among these samples, 17 samples were found to be above the limits (caesium-134+caesium-137: 100 Becquerel/kg). This represents 0.05 percent of all samples.

During the month of September 2015, 28,213 samples were taken and analysed. Among these samples, 14 samples were found to be above the limits (caesium-134+caesium-137: 100 Becquerel/kg). This represents 0.05 percent of all samples.

Restrictions are imposed on the distribution of food products, if the level of radioactive contaminants of the food product exceeds the limit (caesium-134+caesium-137: 100 Becquerel/kg). Restrictions are to be removed, when the level of radioactive contaminants of the food product is monitored to be constantly below the limit for a certain period of time. Therefore, the products on which the distribution restrictions are newly imposed are the products whose radioactive contaminant level exceeded the limit in the past month. By the same logic, the products whose restrictions are newly removed are the products whose radioactive contaminant level has been lower than the limit for a certain period of time.

6.2: Results of monitoring food products

(1) The current situation and protective measures

The fact sheet uploaded in the link below is the summary of the current situation and the measures taken by the Government of Japan:
http://www.mhlw.go.jp/english/topics/2011eq/dl/food-130926_1.pdf

(2) Noteworthy updates in the past months (during the period from August 2015 to September 2015)

The lists of food products whose status regarding the restriction was changed are as follows.

(i) Products whose distribution was newly restricted in August 2015
- none

(ii) Products whose restrictions were removed in August 2015
- Log-grown shiitakes (outdoor cultivation) produced in Tochigi-shi (excluding former Iwafune-machi), Tochigi prefecture and Log-grown shiitakes (indoor cultivation) produced in Nasu-machi, Tochigi prefecture that are managed based on shipment and inspection policy set by Tochigi prefecture

- Japanese apricot (Ume) produced in Minamisoma-shi (limiting area within 20 km radius from the TEPCO's Fukushima Daiichi Nuclear Power Plant and Planned Evacuation Zones), Fukushima prefecture
- Log-grown shiitakes (outdoor cultivation) produced in Kesennuma-shi, Miyagi prefecture that are managed based on shipment and inspection policy set by Miyagi prefecture

(iii) Products whose distribution was newly restricted in September 2015

- none

(iv) Products whose restrictions were removed in September 2015

- Log-grown shiitakes (outdoor cultivation) produced in Kami-machi , Miyagi prefecture that are managed based on shipment and inspection policy set by Miyagi prefecture
- Bamboo shoot produced in Tokai-mura, Ibaraki prefecture
- Whitespotted chars and Cherry salmons (excluding farmed fish) captured in Sukawa river (limiting its branches) in Fukushima prefecture
- Whitespotted chars (excluding farmed fish) captured in Iwai river (including its branches) in Iwate prefecture
- Cherry salmons (excluding farmed fish) captured in Abukuma river (including its branches but excluding Shiroishi river (including its branches but excluding upper reaches from Shichikashuku dam)) in Miyagi prefecture

(3) Monitoring results data

See the link below (new monitoring results are added once a week):
http://www.mhlw.go.jp/english/topics/2011eq/index_food_radioactive.html

(4) Information focused on the safety of the fishery products

The information that is provided above in (1)-(3) cover fishery products, but in addition to this information, further detailed information is available on the Fisheries Agency's website
http://www.jfa.maff.go.jp/e/inspection/index.html

(i) Summary of monitoring on fishery products

The first half of the website consists of summary of monitoring on fishery products. For further information and to see the actions taken to ensure the safety of fishery products, please refer to the fact sheet uploaded in the site. This fact sheet is available in English, French, Spanish, Russian, Chinese and Korean.

(ii) "Report on the Monitoring of Radionuclides in Fishery Products" was updated by the Fisheries Agency of Japan

Since the accident at the TEPCO's Fukushima Daiichi NPS, the Government of Japan and local authorities have cooperated closely with relevant bodies to secure the safety of fishery products. With an aim to promote accurate understanding on the safety of Japanese fisheries products at home and abroad, the data and information accumulated in

the inspection of the last three years was evaluated comprehensively in the previous Report, which was published in May 2014.

In April 2015, the Fisheries Agency of Japan released updated Report, which reflects latest data and recent research results. It shows that, after four years from the accident, the level of radioactive Cs in fishery products has declined substantially.

The Report is available at the following URLs:

- Japanese version, full Report
  http://www.jfa.maff.go.jp/j/housyanou/pdf/report_zenbun.pdf
- Japanese version, summary
  http://www.jfa.maff.go.jp/j/housyanou/pdf/report_gaiyou_a.pdf
- English translation, full report
  http://www.jfa.maff.go.jp/e/inspection/pdf/report_on_the_monitoring_of_radionuclides_in_fishery_products.pdf
- English translation, summary
  http://www.jfa.maff.go.jp/e/inspection/pdf/summary_report.pdf

(iii) Monitoring results data

The second half of the website consists of various monitoring results on radioactivity measured in fishery products.

Section 7: Radiation Protection of Workers

Information pertaining to radiation protection of workers involving TEPCO's Fukushima Daiichi NPP Accident is updated on the following website of the Ministry of Health, Labour and Welfare (MHLW):

http://www.mhlw.go.jp/english/topics/2011eq/workers/index.html

7.1: TEPCO's Fukushima Daiichi NPP

The status on the exposure dose, health care management and radiation protection of the workers at TEPCO's Fukushima Daiichi NPP are as follows.

(1) Status of Radiation Exposure

Exposure doses of the workers at TEPCO's Fukushima Daiichi NPP are reported to the MHLW once a month. The latest monthly report is available on the following webpage:

http://www.mhlw.go.jp/english/topics/2011eq/workers/irpw/index.html

(2) Radiation Protection

Information on radiation protection of workers including measures to be taken and evaluation of committed effective dose of workers at the affected plant:

http://www.mhlw.go.jp/english/topics/2011eq/workers/tepco/index.html

(3) Long-term Health Care

Updated Information on long-term health care of emergency workers including health examination and guidelines;

"Policies for Epidemiological Studies Targeting Emergency Workers at the TEPCO's Fukushima Daiichi Nuclear Power Plant Have Been Compiled." is available on the following webpage. (Updated on June 4, 2014)

http://www.mhlw.go.jp/english/topics/2011eq/workers/tepco/lhc/pr_140604.html

(4) Other Related Topics

Updated other related information on the workers at TEPCO's Fukushima Daiichi NPP:

Senior Vice-Minister of Health, Labour and Welfare Demands Thorough Implementation of Occupational Accident Prevention Measures (Updated on January 23, 2015)

http://www.mhlw.go.jp/english/topics/2011eq/workers/ri/pr/pr_150123.html

7.2: Decontamination/Remediation

The status on radiation protection of the workers engaged in decontamination and remediation of contaminated materials derived from Fukushima Daiichi NPP Accident is as follows.

(1) Decontamination/Remediation

Updated Information on decontamination and remediation including guidelines and results of labour inspection:

Results of supervision/instructions to employers of decontamination workers (July - December 2014) (Updated on March 5, 2015)

http://www.mhlw.go.jp/english/topics/2011eq/workers/dr/dr/dr_150305.html

(2) Waste Disposal

Information on waste disposal work including guidelines:

http://www.mhlw.go.jp/english/topics/2011eq/workers/dr/index.html

(3) Other Related Topics

Other related information on waste disposal work:

http://www.mhlw.go.jp/english/topics/2011eq/workers/dr/index.html

7.3: Related Information

(1) Press Releases

Press releases from the MHLW on radiation protection of workers are updated on the following webpage.

Measures to prevent radiation hazards for emergency workers at nuclear facilities were formulated- Ordinance on Prevention of Ionizing Radiation Hazards and related regulations were partially revised to be applied from 1 April 2016 - (Updated on August 31, 2015)

http://www.mhlw.go.jp/english/topics/2011eq/workers/tepco/rp/pr_150831.html

Measures for occupational safety and health management will be enhanced at the TEPCO Fukushima Daiichi Nuclear Power Plant - A guideline was formulated - (Updated on August 26, 2015)

http://www.mhlw.go.jp/english/topics/2011eq/workers/tepco/rp/pr_150826.html

Producing and Offering Graphic Presentations of Dose Statistical Data Based on the Information Registered with the System of Registration and Management of Radiation Exposure Doses for Decontamination and Related Works (2014) (by Radiation Effects Association) (Updated on July 14, 2015)

http://www.mhlw.go.jp/english/topics/2011eq/workers/dr/ort/pr_150714.html

Quarterly Radiation Exposure Dose Distribution of Workers for Decontamination and Related Works, etc. (Preliminary Figures) [From April 2014 to March 2015] (by Radiation Effects Association) (Updated on July 14, 2015)

http://www.mhlw.go.jp/english/topics/2011eq/workers/ors/oi/pr_150714_a01.pdf

A recommendation received from the Labor Policy Council confirming the validity of the "Outline of the Draft Ministerial Ordinance for Partial Revision of the Ordinance on Prevention of Ionizing Radiation Hazards" (Updated on June 18, 2015)

http://www.mhlw.go.jp/english/topics/2011eq/workers/tepco/rp/pr_150618.html

Senior Vice-Minister of Health, Labour and Welfare Demands Thorough Implementation of Occupational Accident Prevention Measures (Updated on January 23, 2015)

http://www.mhlw.go.jp/english/topics/2011eq/workers/ri/pr/pr_150123.html

(2) Guidelines/Notifications

Guidelines and notifications from the MHLW on radiation protection of workers are available on the following webpage.

http://www.mhlw.go.jp/english/topics/2011eq/workers/ri/index.html

Guideline on Revision of Part of the Guidelines on Safety and Health Education for Those Who Are Currently Engaged in Dangerous or Harmful Operations (Labour Standards Bureau Notification No. 0831-6) (Updated on August 31, 2015)

http://www.mhlw.go.jp/english/topics/2011eq/workers/tepco/rp/pr_150831_attachment09.pdf

Formulation of the Guideline: “Guidelines on Maintaining and Improving Health of Emergency Workers at Nuclear Facilities, etc.” (Labour Standards Bureau Notification No. 0831-10) (Updated on August 31, 2015)

http://www.mhlw.go.jp/english/topics/2011eq/workers/tepco/rp/pr_150831_attachment10.pdf

Formulation of the “Guidelines on occupational safety and health management at the TEPCO Fukushima Daiichi Nuclear Power Plant” (Updated on August 26, 2015)

http://www.mhlw.go.jp/english/topics/2011eq/workers/tepco/rp/pr_150826_attachment03.pdf

(3) Regulations/Legislations

Regulations and legislations of the MHLW on radiation protection of workers are available on the following webpage.

http://www.mhlw.go.jp/english/topics/2011eq/workers/ri/index.html

Opinions on the Draft Ministerial Ordinance to Revise Part of the Ordinance on Prevention of Ionizing Radiation Hazards (Updated on August 31, 2015)

http://www.mhlw.go.jp/english/topics/2011eq/workers/ri/rl/pr_150831.pdf

Enforcement of the Ministerial Ordinance for Partial Revision of the Ordinance on Prevention of Ionizing Radiation Hazards and Other Related Regulations (Labour Standards Bureau Notification No. 0831-13) (Updated on August 31, 2015)

http://www.mhlw.go.jp/english/topics/2011eq/workers/tepco/rp/pr_150831_attachment11.pdf

(4) Governmental reports

Governmental reports issued by the MHLW are available on the following webpage.

A Report Has Been Compiled on Methods etc. for Providing Health care and Exposure Dose Control during Emergency Works in Nuclear Facilities. (Updated on May 1, 2015)

http://www.mhlw.go.jp/english/topics/2011eq/workers/ri/pr/pr_150520.html

Response and Action Taken by the Ministry of Health, Labour and Welfare of Japan on Radiation Protection at Works Relating to TEPCO's Fukushima aiichi Nuclear Power Plant Accident. (Updated on March 31, 2015)

http://www.mhlw.go.jp/english/topics/2011eq/workers/ri/gr/pr_150331_a01.pdf

(5) Leaflets/Brochures

Leaflets and brochures published by the MHLW on radiation protection of workers are available on the following webpage.

http://www.mhlw.go.jp/english/topics/2011eq/workers/ri/index.html

(6) Other Institutions

Statistics on Radiation Exposure Doses of Decontamination Workers and Other Items Have Been Announced. (Updated on April 15, 2015)

http://www.mhlw.go.jp/english/topics/2011eq/workers/ors/oi/pr_150415.html

The launch of the organization for systematic control of radiation exposure doses, etc. for decontamination and related works (Updated on November 15, 2013)

http://www.mhlw.go.jp/english/topics/2011eq/workers/ors/oi/pr_131115.html

Section 8: Actions taken by the Japanese Government

8.1: Currently implemented public protective actions in place (i.e., food restrictions)

1. Actions have been taken regarding food safety during the period from August 2015 to September 2015

   Actions to restrict food distribution or removal of these restrictions are taken based on monitoring results. For the products whose distribution was newly restricted or whose restrictions were removed during this period, please refer to 6.2(2)
2. Further information on this topic is available online:

   http://www.mhlw.go.jp/english/topics/2011eq/index_food_press.html
3. Supplementary note (explanation for fishery products)

   The scope of the protective actions covers not only agricultural products but also fishery products. For further information about the monitoring result of the fishery products, please refer to Section 6.2(4).

8.2: Measures implemented to improve public communication

1. Information from the last months

   The Government of Japan has actively been strengthening its communication process to ensure timely dissemination of accurate information on the current status of activities onsite in multiple languages for the international community. In 2015 Japan provided updates in August on 13, 18, 25, in September on 7, 9, 18, in October on 2, and so far in November on 4. All of the updates provided to the IAEA are available on this webpage:

https://www.iaea.org/newscenter/focus/fukushima/status-update

2. Relevant activities in disseminating information to the public

(1) Press Conference

Recovery operations at the Fukushima Daiichi NPS including contaminated water issues are one of the major issues which the Government of Japan has been focusing on. Since progress has been made frequently, there are updates arising on a daily basis. To explain the updates to the public, the Government of Japan disseminates the relevant information through press conferences. The Chief Cabinet Secretary and the Minister of Economy, Trade and Industry are the main briefers of the press conference, but other ministers or press secretaries may also be the briefer, depending on the subject.

(2) Information delivery to media

The government has been providing relevant information for both the domestic and the foreign press including that stationed in Tokyo and for other media, using various means such as press conferences, press briefings, press tours and press releases. For example, the Fisheries Agency has conducted a media tour to a radioactivity monitoring site for fishery products (Marine Ecology Research Institute) in order to facilitate better understanding for monitoring on fishery products.

(3) Providing information to foreign nations through diplomatic channels

Whenever there is a significant update, the Ministry of Foreign Affairs sends out a notification with relevant information to all foreign missions stationed in Tokyo. The same information is conveyed to all Japanese embassies, consulate generals, and missions. As necessary, the information would be shared with foreign nations and relevant organizations through these diplomatic channels.

In addition, the Ministry of Foreign Affairs holds briefing sessions on Fukushima Daiichi NPS issues for the foreign missions stationed in Tokyo, when there is a significant update. The information on the last briefing session is shown in the link below.

http://www.mofa.go.jp/dns/inec/page22e_000751.html

(4) Measures taken by TEPCO

TEPCO has thus far been providing briefings on the status of Fukushima Daiichi NPS. In June and October 2014, in order to supplement such briefings, it has arranged for field observation tours of Fukushima Daiichi NPS for diplomatic officials and employees of embassies to Japan.

These briefings have been conducted with the aim of facilitating a correct understanding through the expeditious communication of accurate information outside of Japan, as well as maintaining TEPCO's accountability as the main party responsible for the accident.

The purpose of the field tours is to enable participants to observe the actual circumstances as they are at the power station by viewing and touring the actual site, in conjunction with the briefings at diplomatic missions. Moreover, TEPCO expects to utilize the network of diplomatic officials to build a new relationship, and provide a connection with TEPCO which had not been open before conducting these tours.

(5) Disseminating information to Japanese populations

In general, the information is shared with Japanese populations through the channels shown above in (1)-(2). In addition to these efforts, the Government of Japan has improved public communication by enriching the content of relevant ministries' webpage and by hosting a local briefing session on a case by case basis. METI regularly informs the progress of the decommissioning activities and contaminated water countermeasures to Fukushima prefecture and 13 local municipalities surrounding the site through video conference and direct visits.

3. Risk Communication

(1) Policy package regarding radioactive risk communication aiming for evacuees returning their home

In order to address in detail each person's concern and apprehension, in February 2014, the Government of Japan adopted a policy package regarding radioactive risk communication aiming for evacuees returning to their homes

This package includes following measures:

(i) Reinforce the ongoing risk communication approaches to further address the individual's concern and apprehension

Up until now, the Government of Japan provided relevant information to the public regarding the impact of radiation on one's health through various measures such as hosting a lecture session or seminar by inviting radiation experts to the evacuation site or supplying a range of publication magazines to affected people.

In addition to these measures, it is necessary to provide open communication for people to freely ask any questions. The Government will address this issue by recognizing that the people's perception on the impaction of radiation on one's health varies from person to person.

The Government of Japan will reinforce its risk communication approaches by taking finely textured measures to alleviate individual's concern in evacuation order municipalities.

(a) Providing information in an accurate and straightforward manner

(b) Reinforcing risk communication approaches to small groups of people (man to man or in an intimate setting)

(c) Capacity building of experts in local areas

(d) Enriching risk communication services being delivered by therapists who closely support the local regions

(ii) Continuous delivery of risk communication service to other areas in Fukushima and expanding to the national audience

Regarding the measures (such as holding meetings to explain radioactive substances in food, providing telephone counseling service to respond to inquiries from people with health anxiety due to radiation, etc.) for risk communication which intend to cover Fukushima prefecture as well as rest of other prefectures in Japan, the Government will feedback the on-site challenges, improve the content and delivery of the measures to more effective ones and would make continuous effort.

(2) Practical measures for evacuees to return their homes by NRA

NRA formulated practical measures of radiation protection for the evacuees, who will return their homes, from scientific and technological points of view in cooperation with other governmental organizations. The practical measures stay on addressing the difficulties which the evacuees have been facing. It is expected that the practical measures will be helpful for the evacuees to make decisions whether they return their homes or not.

The detail of these measures taken by NRA is available in the following link:
https://www.nsr.go.jp/data/000067234.pdf

8.3: Related organizations dealing with decommissioning and contaminated water measures

1. Fukushima Daiichi Decontamination & Decommissioning Engineering Company

(1) For the purpose of clarifying the responsibilities allocation and focusing solely on handling of decommissioning and contaminated water at the Fukushima Daiichi NPS, TEPCO established a new company on April 2014, which is an internal entity of the function dealing with decommissioning and contaminated water within TEPCO. For further information, please refer to the following webpage:

http://www.tepco.co.jp/en/press/corp-com/release/2014/1235009_5892.html

(2) The organizational structure of the company

i. General Administration Dept.
Overall management of the whole company, establishment of support and operational infrastructure, and supporting of the Chief Decommissioning Officer on site

ii. Project Planning Dept.
Schemes of resolution policies and plans for issues related to decommissioning and contaminated water.

iii. Fukushima Daiichi NPS
Implementation of countermeasures against decommissioning and contaminated water

2. Nuclear Damage Compensation and Decommissioning Facilitation Corporation (NDF)

(1) "Nuclear Damage Compensation Facilitation Fund", which was established in 2011 in order to support the compensation for nuclear damage occurred during the accident at the TEPCO's Fukushima Daiichi Nuclear Power Plant, was reorganized and became "Nuclear Damage Compensation and Decommissioning Facilitation Corporation (NDF)". The reorganized NDF is also in charge of some of the decommissioning issues and is expected to challenge the tasks with expertise and continuity which have not been sufficiently dealt with so far from Mid-and-long term landscape. For further information, please refer to the following webpage:
http://www.ndf.go.jp/soshiki/pamph_e.pdf

(2) The roles of the new NDF will be as follows:

i. Strategy planning of important issues including fuel debris retrieval and waste
ii. Planning and schedule control of R&Ds needs

iii. Support of schedule control of key items
iv. Enhancement of international cooperation

3. “The Collaborative Laboratories for Advanced Decommissioning Science”

(1) Japan Atomic Energy Agency (JAEA) established the Collaborative Laboratories for Advanced Decommissioning Science bringing together expertise and knowledge from academia, industry and government in April, 2015. The laboratories are not only to provide TEPCO with technologies gathered during academia-industry-government cooperation and apply research results to the decommissioning and reconstruction of Fukushima, but also to provide a research database as an international public asset.

(2) The functions of the laboratories will be as follows:

i. Functioning as the center for international research with academia-industry-government
ii. Creating international collaborative research promotion system
iii. Contributing to human resources development
iv. Sharing research results with the international community

4. Related websites

Information is frequently shared in English on the following websites:

- The Ministry of Foreign Affairs: http://www.mofa.go.jp/policy/page3e_000072.html
- The Nuclear Regulation Authority: http://www.nsr.go.jp/english/
- The Ministry of Economy, Trade and Industry: http://www.meti.go.jp/english/earthquake/nuclear/decommissioning/index.html
- The Food Safety Commission of Japan: http://www.fsc.go.jp/english/emerg/radiological_index_e1.html
- The Ministry of Health Labour and Welfare: http://www.mhlw.go.jp/english/topics/2011eq/index_food_policies.html
- The Ministry of Agriculture, Forestry and Fisheries: http://www.maff.go.jp/e/quake/press_110312-1.html
- TEPCO (General information on activities onsite): http://www.tepco.co.jp/en/nu/fukushima-np/index-e.html

IAEA assessment on aspects presented in the November 2015 report *'Events and highlights on the progress related to recovery operations at Fukushima Daiichi NPS'*

Measures to control groundwater ingress and reduce radioactivity release into the sea

As reported by Japan, as of 3 September 2015, TEPCO started operations to pump groundwater from the sub-drains (a group of 41 wells installed in the vicinity of the reactor buildings) and the ground water drain (a group of 5 wells installed in the bank protection area adjacent to the port). As a result of a significant agreement reached with many stakeholders including the fishermen, TEPCO is now able to discharge the groundwater to the sea after necessary treatment and monitoring to make sure the concentrations of radionuclides (Cs-134/137, Sr-90, H-3, gross β) are within the stipulated discharge limits. Japan also reported that, on 26 October, TEPCO completed the final section of the seaside impermeable wall to reduce outflow of groundwater into the ocean. TEPCO expects these countermeasures to reduce groundwater ingress into the reactor buildings and to reduce the accumulation of contaminated water needing storage and treatment.

The IAEA acknowledges that the discharge of treated groundwater and completion of the final section of the seaside impermeable wall were achieved through extensive communication and engagement with many stakeholders and the public. TEPCO is encouraged to assess the effectiveness of the above countermeasures against groundwater ingress into the reactor buildings and outflow of contaminated groundwater into the sea.

Sea area monitoring results

Sea area monitoring data continues to be published regularly by NRA. In September 2015, TEPCO started to discharge treated groundwater into the ocean. Also, heavy rainfall from a typhoon in September 2015 resulted in rainwater from Drainage K overflowing into the ocean. Nevertheless, the reported concentrations of tritium, Sr-90, Cs-134 and Cs-137 in seawater remain low and relatively stable, with no significant changes observed during August 2015 and September 2015. The levels of Sr-90, Cs-134 and Cs-137 in marine sediment for the monitored marine areas defined by the Japanese government remained stable during August 2015 and September 2015.

The IAEA notes that the sea area monitoring results, published regularly by the NRA, demonstrate that the levels of radionuclides in the marine environment remain stable. For the purpose of public reassurance, the IAEA encourages continuation of sea area monitoring, particularly considering that authorized discharges of treated groundwater into the ocean have started.

Sea area monitoring data quality assurance

The results of 12 Japanese laboratories from the 2014 Proficiency Test on radionuclides in seawater samples exceeded the general performance of laboratories participating on a worldwide basis. Results from the interlaboratory comparison, organized in May 2015 with seawater and marine sediments collected near the NPS, indicate that there are no significant differences between the results of the participating Japanese laboratory, the IAEA and two other independent laboratories. An IAEA expert team visited Japan in November 2015 to collect seawater. To broaden the scope of the data reliability and comparability assessment, they also collected samples caught by fishermen in the Fukushima Prefecture. Further proficiency tests and interlaboratory comparisons involving Japanese laboratories will be regularly organized by the IAEA until the end of 2016 to support the quality assurance of reported monitoring data.

Preliminary results from the 2015 seawater Proficiency Test Exercise show that the participating Japanese laboratories performed well in this exercise.

Food Products

As reported by Japan, national regulatory limits for levels of caesium radionuclides in food remain in force, and the authorities in Japan are continuing to implement a programme of food monitoring. This

surveillance and control regime is used to ensure that food with unacceptable levels of caesium radionuclides do not enter the food supply chain. Restrictions on food products from areas where radionuclide levels are found to be above the national regulatory limits are used to prevent their distribution. According to the information provided, although many food restrictions remain in force, it has not been necessary to implement new food restrictions over the reporting period and several such restrictions have been lifted where extensive testing confirms that food collected no longer exceeds the regulatory limit.

According to the information provided by the Japanese authorities, the situation with regard to food, fishery and agricultural production continues to remain stable and does not raise any new issues. A comprehensive system is in place to monitor the food supply. Measurements of caesium radionuclides in foodstuffs, together with appropriate regulatory action and the reporting of the monitoring results are helping to maintain confidence in the safety of food. The IAEA continues to acknowledge that systems are in place and are being implemented to prevent food and agricultural products with levels of caesium radionuclides in excess of the national regulatory limits from entering the food supply chain. Food restrictions continue to be revised and updated as necessary, in line with food sampling and monitoring, and this indicates the continued vigilance of the authorities in Japan and their commitment to protecting consumers and trade. Based on the information that has been made available, the Joint IAEA / FAO Division understands that the measures taken to monitor and respond to issues regarding radionuclide contamination of food are appropriate, and that the food supply chain is under control.