FY2019 Q4 Progress Report on Nuclear Safety Reform Plan

Q4 Progress Summary

Keeping the Fukushima Nuclear Accident firmly in mind: Be safer today than yesterday, and safer tomorrow than today.

- To live up to the above resolution, TEPCO is implementing nuclear safety reforms, steadily moving forward with decommissioning and engaging in activities designed to raise TEPCO's power stations to the world's highest levels of safety.
- On the ninth anniversary of 3.11, President Kobayakawa visited Fukushima Daiichi and joined personnel as a moment of silence was offered at 2:46 PM. President Kobayakawa also addressed all employees and reaffirmed that, "We shall not let the regrets and lessons learned from the Fukushima Nuclear Accident be forgotten," "The beginnings of TEPCO lie in Fukushima," and "There is no end to safety."
- At Fukushima Daiichi, the "Promise to the People of Fukushima as we aim to Balance Recovery with Decommissioning," and "Decommissioning Mid/Long-term Action Plan 2020" were announced. In accordance with our underlying principle of "balancing recovery with decommissioning," we shall be more open, gain trust, and complete our mission to enable Fukushima to recover and decommission the power stations while explaining our future outlook for decommissioning work, which we shall move forward with while gaining the understanding of community residents and society as a whole, carefully and in an easy-to-understand manner.
- We have requested that the president's responsibilities and resolutions pertaining to the "seven promises" conveyed in our response to the Nuclear Regulation Authority be reflected in the nuclear facility safety regulations. Under the leadership of the president, TEPCO shall complete the decommissioning of Fukushima Daiichi while balancing the never-ending improvement of nuclear power station safety, sincerely responding to requests from the local communities and repeatedly engaging in dialogue with local residents as we continue to act independently to fulfill our responsibilities.
- In light of the heightened risk of infectious diseases, such as Covid-19-induced pneumonia, all Group companies have been strengthening countermeasures since February, and the Nuclear Power Division has been focusing on infection prevention measures for nuclear power station operators.



Initiatives to share the regrets and lessons learned from the Fukushima Nuclear Accident

Leading up to the ninth anniversary of 3.11, activities to promote understanding amongst all Nuclear Power Division personnel about "Nuclear Safety Reforms for the Next Generation" were conducted as one of the main initiatives of "Fukushima Nuclear Accident Remembrance Day." On March 11, President Kobayakawa visited Fukushima Daiichi and joined personnel as a moment of silence was offered at 2:46 PM. President Kobayakawa also addressed all employees and reaffirmed that, "We shall not let the regrets and lessons learned from the Fukushima nuclear accident be forgotten," "The beginnings of TEPCO lie in Fukushima," and "There is no end to safety." Going forward, we shall not forget "our resolution" and shall continue to implement nuclear safety reforms in order to ensure the world's highest levels of safety.



President Kobayakawa addresses personnel at Fukushima Daiichi

Our promise to the people of Fukushima as we aim to balance recovery with decommissioning

As initiatives to enable residents to return home and help the area to recover progress in the surrounding region, we are prioritizing safety and further risk reductions in accordance with our underlying principle of "balancing recovery with decommissioning" as we move forward with the long-term decommissioning process because moving steadily forward with decommissioning in cooperation with the region is of vital importance. We have therefore formulated a "Promise to the People of Fukushima as we aim to Balance Recovery with Decommissioning" to detail our plans and measures for contributing to recovery in Fukushima through the decommissioning process (March 27). We shall sincerely respond to questions and concerns that the regional residents have about decommissioning and further strengthen efforts to carefully disseminate information in order to deepen and evolve communication, improve transparency, gain trust and accomplish our mission to complete decommissioning and promote recovery.

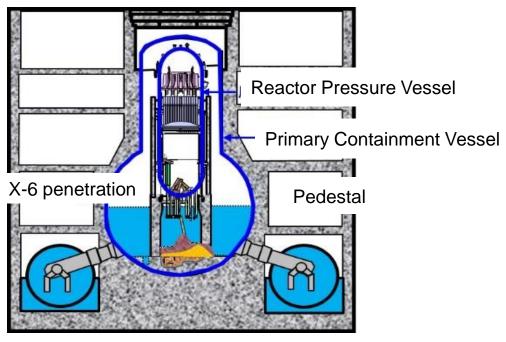


Our promise to the people of Fukushima



Decommissioning Mid/Long-term Action Plan 2020

The Decommissioning Mid/Long-term Action Plan 2020 was created in order to "detail primary decommissioning work processes through 2031" so that we may achieve the goals put forth in the Mid/Long-term Roadmap and the Nuclear Regulation Authority's risk map (March 27). In regards to fuel debris removal, after we have commenced removing fuel from Unit 2 (during 2021), we shall gradually enlarge the scope of removal and move forward with deliberations about removing fuel from Unit 3 after which we will most likely start removing fuel from Unit 1. According to our underlying principle of "balancing recovery with decommissioning," we shall explain our future outlook for decommissioning work, which we shall move forward with while gaining the understanding of community residents and society as a whole, carefully and in an easy-to-understand manner.



Unit 3 (concept diagram)

Reflecting the seven promises in the nuclear facility safety regulations

We have submitted a request to have the "seven promises*," which pertain to the president's responsibilities and resolutions and were submitted to the Nuclear Regulation Authority on August 25, 2017, reflected in the nuclear facility safety regulations (March 30). In the request we clearly state that it is our basic stance as a nuclear operator that the president is responsible for balancing the completion of the decommissioning of Fukushima Daiichi with never-ending improvements to nuclear power station safety. In the course of achieving these goals we shall sincerely respond to requests of local communities and repeatedly engage in dialogue with local residents as we continue to act independently to fulfill our responsibilities.

*Seven promises: Refer to chapter 1.3 of the Nuclear Safety Reform Plan FY2019Q4 Progress Report



Improving safety through emergency response training (Kashiwazaki-Kariwa)



Nuclear Regulation Authority updates

During the 53rd special meeting of the Nuclear Regulation Authority (NRA), President Kobayakawa reported on the causes and countermeasures for accidents/troubles that have occurred at Fukushima Daiichi and exchanged opinions with NRA members (January 16). During the exchange of opinions, the president reported that an analysis of the causes of the accidents/troubles revealed the common factor of "not thoroughly ascertaining field conditions and actual equipment," and explained countermeasures such as, "thoroughly ascertaining field conditions and actual equipment, and improving the ability to do so" through kaizen activities, and "personnel/department development." In response to these countermeasures, approximately 80 employees have been transferred from the Head Office to Fukushima Daiichi in conjunction with department reorganizations in order to better approach issues from the perspective of fieldwork. Furthermore, CFAM's (Corporate Functional Area Managers at the Head Office) have been permanently stationed at Kashiwazaki-Kariwa and have commenced kaizen initiatives from the perspective of field conditions/actual equipment.

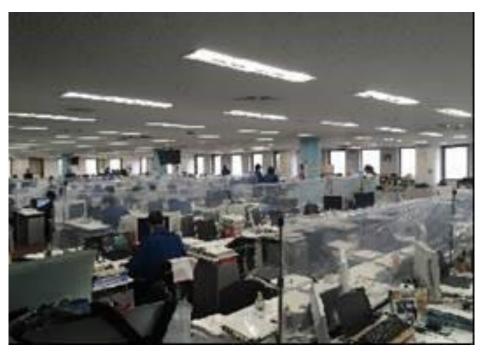


Flange tank disassembly kaizen (Fukushima Daiichi)



Covid-19 countermeasures in the nuclear power division

We continue to formulate and carry out action plans that will enable us to continue business and implement risk countermeasures to ensure safety. Since February 17, all group companies have strengthened countermeasures to reduce the risks associated with Covid-19. In addition to companywide countermeasures, such as requiring that employees take their temperature prior to coming to the office, etc., the Nuclear Power Division has been focusing on countermeasures to prevent nuclear power station operators, who play a vital role in ensuring nuclear safety, from contracting the virus. In addition to designating some commuter transportation, toilets and cafeterias for "operator use only" and demarcating pathways within buildings for "operators-only," restrictions have also been put on access to the main control rooms. However, we shall thoroughly implement additional countermeasures to prevent the spread of the virus in light of the fact that an employee working at Kashiwazaki-Kariwa has tested positive for Covid-19.



Vinyl barriers have been erected to prevent the spread of the virus (Kashiwazaki-Kariwa)



Nuclear Safety Reform Plan Progress Report (Management)

Nuclear Safety Reform Plan Progress Report

- During the fourth quarter, we reported on the status of improvements made to key issues through self-assessments to the Nuclear Reform Monitoring Committee, and the committee commented that, "We have seen great progress as a result of strengthening corporate governance through more stringent self-assessments." We will continue to implement nuclear safety reforms in order to become an organization that can identify weaknesses and issues independently, and make improvements before such weaknesses/issues are pointed out by third parties.
- In regards to initiatives to improve safety awareness, we are promoting "Nuclear Safety Reforms for the Next Generation" in order to pass down the regrets and lessons learned from the Fukushima Nuclear Accident and enable nuclear safety reforms to evolve in accordance with the changing business environment. Continuing nuclear safety reforms will enable us to fulfill the "seven promises."
- As an initiative to improve our ability to promote dialogue more than 18,000 people have been given tours of Fukushima Daiichi. All tours of the site have currently been suspended, but we are leveraging our website, etc. as we continue to carefully disseminate information. We are also engaging in activities to promote understanding about TEPCO initiatives amongst the younger generation, such as by giving energy lectures to students of a technical high school in Aomori Prefecture.
- As part of initiatives to improve technological capability, we implemented joint training with personnel from Fukushima Daiichi
 and Fukushima Daini on responding to a simulated earthquake originating in Hamadori, Fukushima Prefecture, and confirmed
 that we are able to accurately provide information even under difficult and confusing conditions.



Nuclear Reform Monitoring Committee

During the 17th meeting of the Nuclear Reform Monitoring Committee held on February 4, we reported on how self-assessments have been strengthened, how safety and work quality has been improved and how improvements have been made to the quality of information being disseminated in light of the recommendations given in regards to these key issues during the previous meeting on January 29, 2019. The Committee commented that, "Since the last meeting we have seen great progress as a result of strengthening corporate governance through more stringent self-assessments. In particular, we would like to commend management for identifying weaknesses and formulating action plans to fill in gaps and correct these weaknesses." In conjunction with this, the Committee also suggested that we continue to pass down "our resolution," "make further efforts to improve communication," and "strive to improve technological capability through repetitive training, etc." We have humbly listened to these opinions and are taking suggestions seriously as we continue to implement nuclear safety reforms in order to become an organization that can identify weaknesses/issues independently and make improvements before these issues are pointed out by third parties.





Nuclear Reform Monitoring Committee

Nuclear Safety Reform Plan Progress Report

Internal oversight department activities

The Nuclear Safety Oversight Office, which is an internal oversight department independent of our executive branch that was created to strengthen support for, and monitor, management, has made the following suggestions in regards to the pursuit of excellence.

- In regards to the issues pointed out by third parties in regards to nuclear safety, you should understand the industry's standard approach to these issues and quickly rectify them. (Kashiwazaki-Kariwa)
- Management should clarify its expectations and strictly order middle management to abide by improvements that leverage reports of unsafe conditions or behavior, including issues that have little impact. (Fukushima Daiichi)



Nuclear Safety Reform Plan Progress Report

Initiatives to Improve Safety Awareness

"Nuclear Safety Reforms for the Next Generation" refer to activities to pass down the regrets and lessons learned from the Fukushima Nuclear Accident and enable nuclear safety reforms to evolve in accordance with our changing business environment, that we have been engaged in since Fukushima Nuclear Accident Remembrance Day. As the number of employees that did not experience the Fukushima Nuclear Accident firsthand increases, we must stay firm in our resolution to ensure that the objective of all daily duties is to make nuclear safety tomorrow better than it is today. Continuing nuclear safety reforms will enable us to fulfill the "seven promises."

The main details of Nuclear Safety Reforms for the Next Generation are as follows:

- Pass on regrets and lessons learned from the Fukushima Nuclear Accident, including our resolution, to the next generation.
- Continually make improvements to equipment and management safety measures in order to adapt to the changing environment.
- Systemize work mechanisms and work procedures using the Management Model and the Decommissioning Promotion Strategy, and leverage these tools in the course of daily duties.
- Give public updates on initiative progress, listen to criticism and opinions, and reflect this criticism in future plans.

安全意識 技術力 安全意識 対話力

From "Nuclear Safety Reforms for the Next Generation" (diagram showing tomorrow (right) over today (left))

KPI Results: Safety Awareness

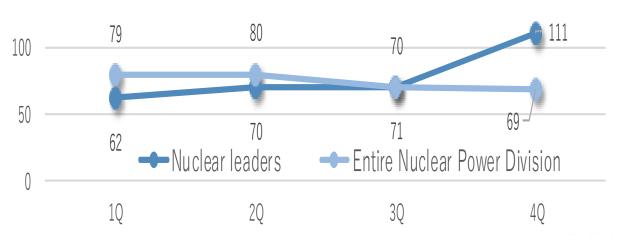
Four new PI have been added to FY2019 KPI based on the change policy (mentioned in the FY2018 Q4 progress report) created in light of FY2018 performance. The results from year-long monitoring are shown below.

Nuclear leaders: 111 points

(Target: 90 points)

Entire Nuclear Power Division: 69 points

(Target: 80 points)





Initiatives to improve the ability to promote dialogue

More than 18,000 people visited Fukushima Daiichi during FY2019. In February, author, Mr. Go Egami, visited Fukushima Daiichi and the TEPCO Decommissioning Archives and commented that, "it is obvious that TEPCO put a lot of energy and thought into the creation of the TEPCO Decommissioning Archives." At current time, all power station visits/tours have been suspended in order to prevent the spread of Covid-19, and the Decommissioning Archives/PR Hall have been closed. However, we continue to use our website, social media, and information magazines to carefully disseminate information.

In order to promote understanding about TEPCO initiatives amongst the next generation, we have given energy lectures at Kashiwazaki-Kariwa for junior high schools in Niigata Prefecture and at the Aomori Head Office for technical high schools in Aomori Prefecture. Participants have commented that, "I learned that the regrets and lessons learned from Fukushima have been used to implement countermeasures."



Mr. Go Egami visits the TEPCO Decommissioning Archives



Energy lectures given at junior high schools

KPI Results: Promoting Dialogue

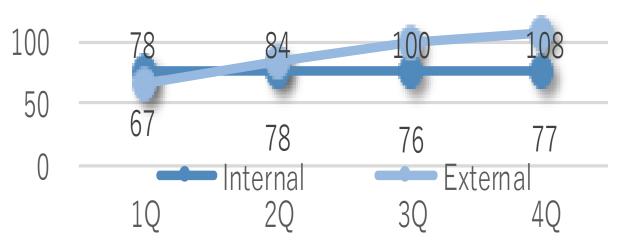
Four new PI have been added to FY2019 KPI based on the change policy (mentioned in the FY2018 Q4 progress report) created in light of FY2018 performance. The results from year-long monitoring are shown below.

Internal: 77 points

(Target: 80 points)

External: 108 points

(Target: 100 points)





Initiatives to Improve Technical Capabilities

Joint training between Fukushima Daiichi and Fukushima Daini personnel was conducted during general emergency response training (January 24). Since training participants responded to simulated simultaneous fires at both the Fukushima Daiichi and Fukushima Daini power stations caused by an earthquake originating in Hamadori, Fukushima Prefecture, it was expected that that the situation would grow increasingly more complicated. However, countermeasures were formulated advance to differentiate information from each power station, which enabled the Head Office to suitably obtain the information it required. We will continue to conduct emergency response training so as to enable accurate information to be provided even amidst difficult and confusing conditions.

During training to improve in-house technological capability, drone operation training was conducted in order to quickly ascertain the extent of damage from the air during an emergency. During the fourth quarter, joint defense training with the Fukushima Prefectural police was held at Fukushima Daini using scenarios that require the use of drone operation skills. We will continue to implement various types of training as we further improve in-house technological capability.



Joint training by Fukushima Daiichi/Daini personnel (Fukushima Daini)



Drone used during joint defense training

KPI Results: Technical Capabilities

Four new PI have been added to FY2019 KPI based on the change policy (mentioned in the FY2018 Q4 progress report) created in light of FY2018 performance. The results from year-long monitoring are shown below.

Non-emergencies: 128 points

(Target: 110 points)

Emergencies: 106 points

(Target: 110 points)

