

Covid-19 Countermeasures at the Fukushima Daiichi Nuclear Power Station

December 10, 2020



Tokyo Electric Power Company Holdings, Inc.
(TEPCO HD)

1. Overview of Covid-19 countermeasures implemented at the Fukushima Daiichi Nuclear Power Station (1/3)

1



(The countermeasures on the following pages were announced on September 24. Changes have been noted in red)

- At the Fukushima Daiichi Nuclear Power Station, ensuring the safety of employees, workers and the residents of the local community is our highest priority. We have been carefully implementing countermeasures to prevent employees and workers from contracting and spreading Covid-19. Going forward, we believe it is of vital importance that we balance Covid-19 prevention measures with the continuation of decommissioning work.
- The Covid-19 prevention measures we have implemented to date include asking employees and contractors to take their temperature prior to coming to the office, to wear surgical masks at all times, to avoid the “Three C’s” (*Closed (environments), Crowded (places), Close (contact)*) by using rest areas at different times, and to refrain from traveling to other prefectures and gathering in large groups.
- In preparation for a quick increase in nationwide infections, we have created a shift system that will enable essential decommissioning work to continue in a stable manner.
- No TEPCO employees or contractors at the Fukushima Daiichi Nuclear Power Station have contracted Covid-19. (as of December 10)
- There has been no major impact from the Covid-19 pandemic on work projects, such as schedule delays, so far.

1. Overview of Covid-19 countermeasures implemented at the Fukushima Daiichi Nuclear Power Station (2/3)

2



- At current time workers are adhering to normal shift schedules. We have been implementing countermeasures to separate lines of travel for shift members and other personnel to prevent those workers who are indispensable for the stable continuation of decommissioning from being infected.
- All site visitations have been suspended from February 29 through June 30. On July 1, we will restart site visits, but visitors will be required to provide a record of their travel history for the 14 days leading up to the day of the visit. This will become a part of the normal process for visitors in accordance with the lifestyle changes.
- The Covid-19 pandemic has increased the demand for surgical masks and personal protective equipment both in Japan and overseas, but at current time we have enough radiological protective equipment to continue the decommissioning of the Fukushima Daiichi Nuclear Power Station.
- Concerned about the increase in the number of infections in the Tokyo area, which has been reflected in such measures as the “Tokyo Covid-19 Infection Spread Monitoring Conference” and “Kanagawa alert,” including alerts issued in Chiba and Saitama prefectures, we have decided to revise some of our countermeasures, which can be found on the next pages (①～⑤) while continuing the countermeasures that have been implemented to date.
- If an outbreak or an increase in infections occurs in the specific areas mentioned earlier, or if new infections occur at power stations/construction sites, appropriate countermeasures shall be implemented in accordance with regional conditions.

1. Overview of Covid-19 countermeasures implemented at the Fukushima Daiichi Nuclear Power Station (3/3)

- ① Restrictions on business trips (Partially revised)
 - In principle, power station employees are prohibited from travelling out of Fukushima Prefecture. (Including travel from the Head Office to the power station)
 - When traveling is unavoidable, supervisors shall confirm that employees to travel have not been subjected to the “Three C’s” in the previous two weeks, and shall not let employees travel to areas where cluster outbreaks have occurred, or to areas where they would be subjected to “Three C’s” environments.
- ② Restrictions on power station employee/worker activities (Partially revised)
 - When traveling within and outside the prefecture, employees/workers are asked to take measures to avoid the Three C’s in accordance with our “new lifestyle.”
 - Employees/workers are requested to not go to places where cluster outbreaks have occurred or to facilities where they may come in contact with unidentified people without surgical masks.
 - During the year-end and New Year holidays, when the risk of infection may increase due to family visits, etc., if the above measures (actions) for infection prevention cannot be observed due to unavoidable circumstances, workers/employees shall take a PCR test or self-quarantine for two weeks to confirm that they have no health issues. (The PCR testing method is the same as ③ below)
- ③ Management of new workers at the power station (Contractors: 8/17~, TEPCO Employees: Those who will be transferred as of October 1)
New workers* (contractors) from outside of the prefecture are asked to abide by the following:
 - * Excluding employees currently assigned to the Kashiwazaki-Kariwa Nuclear Power Station or Higashidori Nuclear Construction Station
 - Review of activity records for the two weeks prior to transfer
 - PCR testing or self-quarantining at home for two weeks while watching for any changes in health shall be employed to confirm that there are no problems.
- ④ Daily health management and activity records. (Continued)
 - All employees and contractors must take their temperature every morning
 - Activity records must be kept for all employees, contractors, and family members with whom they reside.
- ⑤ Installation of thermal cameras (Continued)
 - Six thermal cameras are in operation at the Fukushima Daiichi NPS.

2. Covid-19 countermeasures implemented at the Fukushima Daiichi Nuclear Power Station (1/3) (information on the following countermeasures has already been given)

4

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< The following measures apply to both TEPCO HD employees and contractors >

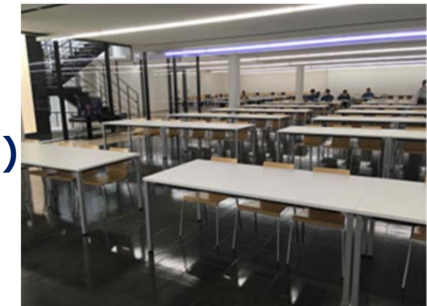
■ Body surface temperature readings taken using infrared thermography (3/16~)

- At each power station (new administration office building: two locations; access control facility: two locations; contractor office building; main gate) body surface temperature readings are being taken and anyone with a temperature of 37.0°C or higher is not being admitted on site or into buildings. (At current time no one has been refused entry)



■ Countermeasures when entering the main anti-earthquake emergency response center and the Unit 5/6 MCR (2/27~)

- In principle, only operators are being allowed into these locations and anyone entering is required to wash their hands and sterilize them with alcohol, and to wear surgical mask at all times.
- Entry/exit information (name, department, entry time) is recorded to
- enable contact tracing if needed.



■ Workers are prohibited from sitting face-to-face in the cafeteria (3/3~)

- The number of workers allowed in cafeterias has been restricted in order to prevent infection by droplets when sitting face-to-face while eating.

■ Response to restriction on activities (7/28~)

- When traveling inside or outside of the prefecture, employees/workers should take thorough action to avoid the “Three C’s” based on the “new life style”.
- The need to travel of employees who are single or who live away from their families should be carefully examined in accordance with regional infection status.
- **During the year-end and New Year holidays, if the “Three C’s” or gatherings where there are a large, or unpredictable, number of people cannot be avoided, workers/employees shall take a PCR test or self-quarantine for two weeks to confirm that they have no health issues.**

■ Management of new workers at the power station (Contractors:8/17~, TEPCO Employees: Those who will be transferred as of October 1)

New workers* (contractors) from out side of the prefecture are asked to implement following:

* Excluding employees currently assigned to the Kashiwazaki-Kariwa Nuclear Power Station or Higashidori Nuclear

- Activity records for the two weeks prior to transfer are to be reviewed
- Entry permits shall be granted after confirming through PCR testing that there are no problems Construction Station
- If the worker cannot take a PCR test, entry shall be permitted after confirming that there is no problem by having the worker self-quarantine for two weeks at home without going to the office and watch for any changes in health before coming to the prefecture.

<The following measures apply to both TEPCO HD employees and contractors>

■ Ionizing radiation health screenings are being conducted as usual

- We have talked with examining physicians at local medical institutions about conducting screenings amidst the Covid-19 pandemic. The opinion of our medical experts is that, "the number of Covid-19 infections in Fukushima Prefecture has remained low, and screenings can be conducted as usual at current time." So, we have decided to conduct screenings as usual.

<The following measures apply to TEPCO HD employees>

■ Restrictions on business trips (7/28~)

- In principle, business trips out of Fukushima Prefecture are prohibited.
- In principle teleconferences are encouraged, and employees are being asked to refrain from travel outside of the prefecture as much as possible.
- If planning a business trip, the necessity of the trip must be explained and activity records for the traveling employees for the two weeks prior to the day of travel must be submitted to supervisors.
- Employees are not allowed to go to places where clusters have occurred.

※ "Close (contact)" refers to, "Contact with others at a distance of less than 1m for 15 minutes or more without wearing surgical masks".

■ Changes made in regards to allowing employees that live away from their families and single employees to return to their homes during holidays/weekends (7/28~)

- Employees who are single or who live away from their families are asked to inform their supervisors the day before if they plan to return to their homes outside the prefecture.
- After employees return from visiting their families they must submit a record of their activities while away.
- The need to visit relatives in locations that require traveling through the Tokyo area should be carefully examined.



■ Restrictions on participation in large gatherings and events (7/1~)

- Employees have been asked to refrain from attending events (assemblies/meetings) that may draw an undetermined number of people.

■ Employees are required to wear surgical masks at all times (4/17~)

- All employees are required to wear surgical masks at all time
(Employees that live away from home must wear surgical masks at all times when around family members)

< The following measures apply to TEPCO HD employees >

- **Employees must take their temperature prior to coming to work and information is being collected on confirmed and possible infections (2/25~)**
 - All employees must take their temperature prior to coming to work and information is being collected on confirmed and possible infections.
 - Employees with a fever must refrain from coming to work and inform their supervisor.
 - If an employee gets a PCR test at a medical institution due to fear of possible infection, s(he) must notify the labor department.
- **Employees have been recommended to commute during off-peak hours and to work from home when possible**
 - The flex-time system is being employed on a company-wide basis.
 - Employees are being recommended to work from home using their company-provided computers and iPads.
- **Cafeterias in dorms for single employees and employees living away from their families (3/6~)**
 - Partitions have been erected and a shift system is being employed for use of cafeterias in order to prevent infections during shift changes.

< The following measures apply to contractors >

- **Contractors have been asked to provide updates on employee status (3/2~)**
 - Contractors have been asked to contact TEPCO if any of their employees develop serious symptoms such as difficulty breathing, lethargy or a high fever.
 - If a contractor gets a PCR test at a medical institution due to fear of possible infection, TEPCO must be promptly notified.
- **When visiting manufacturers and contractors (8/17~)**
 - In principle visits by people coming from the outside of Fukushima prefecture are prohibited.
 - The following countermeasures are to be implemented during unavoidable visits.
 - ✓ Visitors are asked to wear surgical masks during visits.
 - ✓ Rules for our “new lifestyle,” such as wearing surgical masks and only meeting in small groups, must be followed.
 - ✓ Confirm as much as possible that no visitor has subjected themselves to the Three C’s during the two weeks prior to the visit.

3. Information on the shift system at the Fukushima Daiichi Nuclear Power Station



- **At current time workers are adhering to normal shift schedules.**
- **We have been implementing countermeasures to separate lines of travel for shift members and other personnel to prevent those workers who are indispensable for the stable continuation of decommissioning from being infected, such as workers involved in the management of fuel debris, the continuous cooling of spent fuel, and contaminated water treatment.**

- **Commuter bus restrictions**
 - The “shift-member priority bus” has been changed to the “shift-member only bus”
- **Shift members have been asked to avoid contact with non-operations personnel in building hallways, etc.**
 - A separate route from the access control facility to the main anti-earthquake building has been established. (or travel times have been staggered)
 - The changing room usually reserved for visitors is being borrowed in order to separate shift personnel from non-shift personnel
 - The entry/exit to the main anti-earthquake building central monitoring room has been separated to provide one for shift personnel and another for all other personnel.
- **Countermeasures when entering the main anti-earthquake emergency response center and the Unit 5/6 MCR**
 - In principle, only operators are allowed into these locations. If non-authorized personnel must enter these locations, they are required to wash their hands and sterilize them with alcohol, and to wear a surgical mask at all times.
 - Entry/exit information (name, department, entry time) is recorded to enable contact tracing if needed.
- **Operator task environments**
 - Work orders from maintenance division, etc. are now being given outside of the central monitoring room.
 - Information that needs to be passed on to the next shift is being prepared in advance so as to enable this information to be passed on quickly and while maintaining a fixed distance from other shift members.
- **Independent air-conditioning systems are being used to prevent the virus from spreading to other areas**
 - The air conditioning systems for the main anti-earthquake building emergency response center and the Unit 5/6 MCR’s are independent and separate from those used for other areas.

■ Measures for when an employee tests positive (applies to both TEPCO HD employees and contractors)

- The infected person and people with whom they have had close contact are prohibited from coming to the office. The infected person and people with whom they have had close contact are required to wait at home or work from home.
The instructions of medical institutions and health centers shall be followed in regards to the PCR testing of people that have had close contact with the infected party (including people suspected of having close contact)
- Disinfection of the areas used by the infected person
Areas used by the infected person shall be disinfected immediately.
Areas used by people with close contact shall also be disinfected immediately.
- The infected person must contact a health center immediately and follow their instructions for subsequent actions.

■ Visits

- All site visits had been suspended from February 29 to June 30. We will restart site visits, but visitors will be required to provide a record of their travel history for the 14 days leading up to the day of the visit. This will become a part of the normal process for visitors in accordance with the lifestyle changes.

■ Personal protective equipment

- The Covid-19 pandemic has increased the demand for surgical masks and personal protective equipment both in Japan and overseas, but at current time we have enough radiological protective equipment to continue the decommissioning of the Fukushima Daiichi Nuclear Power Station.
- We fear that manufacturing supply chain issues will persist over the long-term. Therefore, in order to maintain current levels of safety required during the decommissioning of the Fukushima Daiichi Nuclear Power Station, we need to make adjustments as necessary to ensure a stable supply of personal protective equipment, such as seeking this equipment from other vendors. We have also implemented measures to flexibly use personal protective equipment in order to ensure the safety of workers.