

# Initiatives for Improving the Working Environment in the Fukushima Daiichi Nuclear Power Plant

Tokyo Electric Power Company, Incorporated.

The Tokyo Electric Power Company has been improving the working environment at the Fukushima Daiichi Nuclear Power Plant from various perspectives, such as making it more convenient and comfortable for the workers, reducing exposure dose and otherwise improving the onsite environment, and implementing strategies for heat stroke. We will continue our efforts to improve the working environment, while ascertaining workers' changing needs.

## 1. Reduction of radiation dose within the plant site

After measuring and ascertaining the effect of contamination due to fallout that covered the entire plant site and direct radiation from the reactor units we have tried to reduce radiation dose by such means as tree trimming, removing surface soil, replacing surface soil with uncontaminated subsoil, or installing shielding.

## 2. Operations in areas that do not require wearing full face masks

We have been expanding areas where workers can wear disposable dust masks (DS2) (where wearing a full-face mask is not mandatory) with the aims of reducing workers' burden by increasing workers' convenience and comfort and improving work efficiency.

## 3. Installation of dose rate monitors

In order to monitor dose rates after radiation level reduction countermeasures have been implemented, we have installed dose rate monitors at the site. The installation of these monitors helps to make field dose rates more visible by displaying the values from those dose rate monitors on large display screens in the Seismically Isolated Building and other locations so as to enable workers to see real-time radiation levels in the field prior to going out.

## 4. Change of exposure dose

As a result of our efforts to reduce the exposure dose rate, the monthly average exposure dose at the Fukushima Daiichi Nuclear Power Plant showed a declining trend in FY2012 compared to FY2011. The low monthly exposure dose has been kept since then.

## 5. Control of workers' doses

Workers engaging in work on the site are registered as radiation workers in advance. They are required to wear a personal alarm dosimeter (PAD) and their doses are strictly controlled.

## 6. Activities to raise awareness about effects of radiation exposure

In order to mitigate concerns about health effects of radiation exposure, lectures have been provided

to workers by experts.

7. Start operations of a large rest house and a meal center

In response to requests for a rest house from workers, a large rest house was constructed that can accommodate 1,200 workers at the same time, and its operations were started on May 31 this year. In addition to the resting areas and cafeteria, it now includes office space, TBM/KY space, WBC, vending machines, etc., and a newsstand will also be constructed. In addition, a meal center was constructed at the O-kawara area in Okuma Town near the Fukushima Daiichi Nuclear Power Plant in response to requests for meal facility from the workers there. The facility started to supply meals from April at the New Office and from June at the Large Rest House.

8. Strategies for heat stroke

Workers need to wear coveralls on the site and are at risk of heat stroke especially during the summer. Therefore, to prevent heat stroke we encourage workers to stay well-hydrated and wear a cool vest. New unified rules to prevent heat stroke have been specified and enforced.

9. Emergency response for injured or sick workers

An emergency doctor, an emergency life-saving technician, and a nurse are stationed on a 24 hour basis in the emergency room at the entry control facility within the site, thereby ensuring an organized system for making prompt emergency responses in the case of injured or sick workers.