TEPCO Group Decommissioning and Decontamination Action Plan

The Action Plan uses the focus and specialized capabilities of the new Fukushima D&D Engineering Company to shift efforts at Fukushima Daiichi from the emergency response phase, which began immediately after the accident, to a longer-term and sustainable approach suited to long-term decommissioning work.

The Action Plan has three main components: (1) Improving the management of water on the site, including reduction of the amount of water that becomes contaminated and reducing the risks associated with stored water; (2) safely achieving steady progress toward the achievement of middle- and long-term goals, including the safe removal of spent nuclear fuel and, ultimately, the safe removal of nuclear debris; and (3) establishment of an administration and infrastructure sufficient to support and manage those activities.

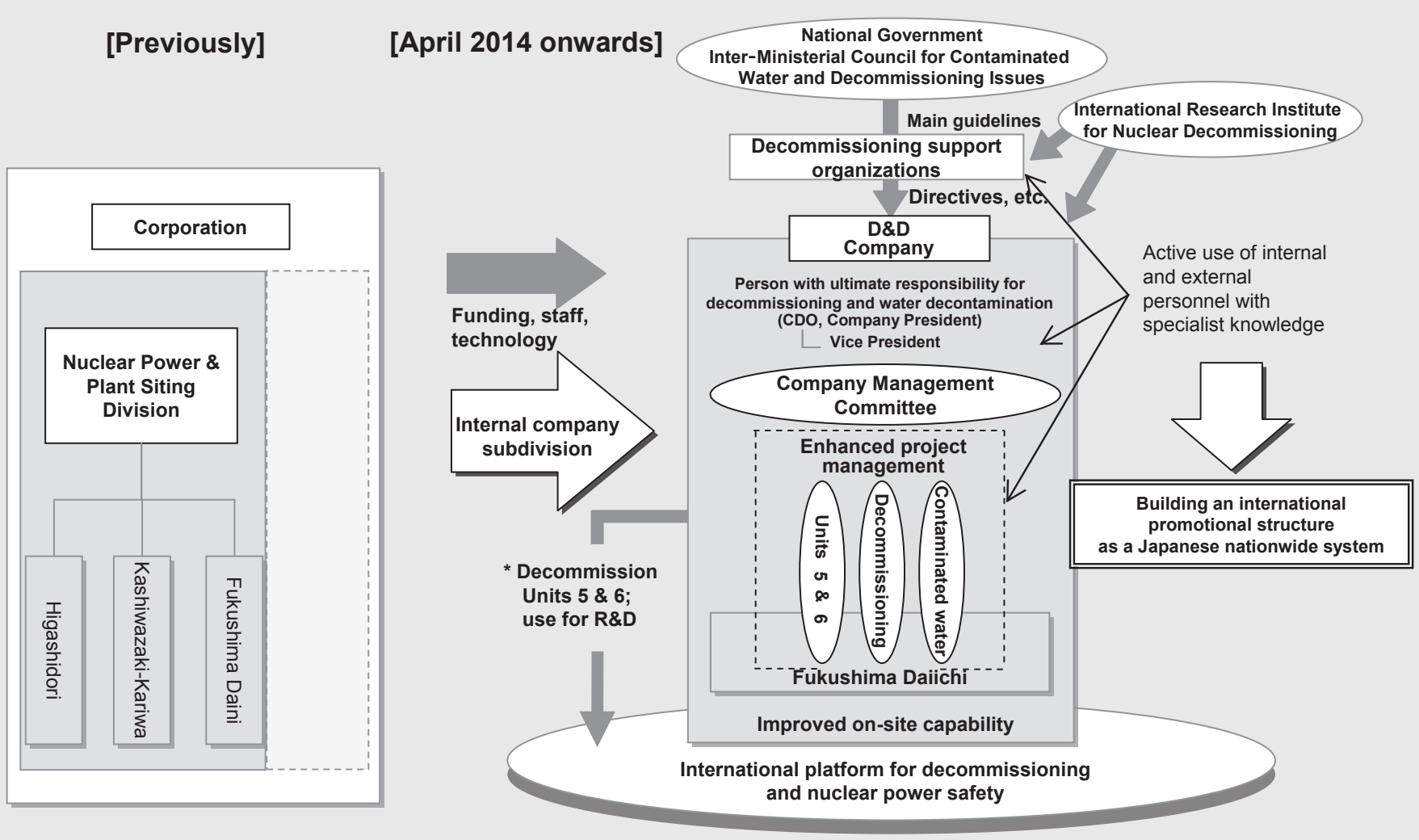
A Commitment to Achieve Three Goals

Ensuring the implementation of contaminated water countermeasures
- Preventing the leak of contaminated water into the sea
- Ensuring the management and risk reduction of retained contaminated water
- Preventing the increase of contaminated water from the inflow of groundwater

Amassing domestic and international knowledge for steady promotion of decommissioning
- Ensuring the removal of fuel from the spent fuel pools (Units 3 and 4)
- Establishing an international platform for exploring various scenarios to define a specific scenario for debris and fuel removal

Building a foundation for long-term decommissioning
- Shifting from makeshift facilities to the installation and administration of more permanent facilities, fostering and securing human resources for decommissioning, and improving the on-site work environment

Fukushima Daiichi D & D Engineering Company

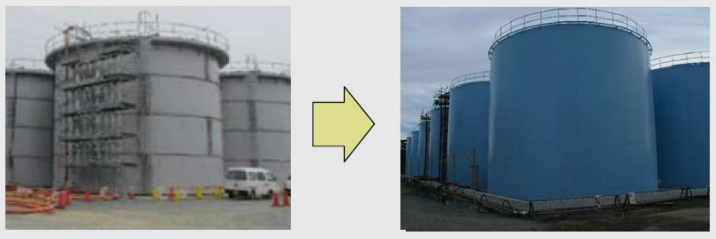


Three Key Action Areas

1 Countermeasures for contaminated water

- Preventing the leak of contaminated water into the sea
  - – Installing steel pipe piles on the ocean side to establish an impermeable wall (FY2014)
- Ensuring the management of retained contaminated water
  - – Installing large welded tanks to replace flange tanks for establishing the total tank capacity of approx. 800,000 tons (FY2014)
- Reducing risks concerning contaminated water retained in tanks
  - – Improving the capacity factor of multi-nuclide removal facilities (ALPS) and installing additional ALPS facilities to purify contaminated water (concentrated RO brine) in tanks by the end of 2014.
- Implementing measures to prevent the inflow of groundwater
  - – Installing an impermeable wall in the frozen soil method (early FY2015)

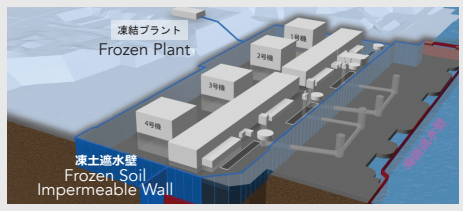
Replacing flange tanks with welded tanks



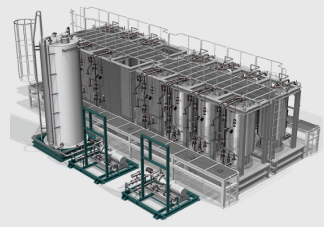
Flange tank　　Welded tank

Promoting countermeasures for contaminated water

e.g. improving the capacity factor of multi-nuclide removal facilities (ALPS) and installing impermeable walls on the ocean and land sides



Impermeable walls on the land and ocean sides



Multi-nuclide removal facility（ALPS）

2 Ensuring steady progress in the mid- and long-term roadmap

- Fuel removal from spent fuel pools
  - – Preparing a safe and efficient work plan based on reviews by domestic and international experts to ensure steady removal of fuel from spent fuel pools
  - – Aiming to complete fuel removal at Unit 4 by the end of 2014 and commence it at Unit 3 in FY2015
- Fuel debris removal
  - – Producing devices for a full-scale investigation inside PCV (FY2014), and drawing up a flexible and specific scenario for removing debris fuel (FY2016)
  - – Establishing an international platform for exploring scenarios, and promoting the foundation of a practical research structure for application to actual equipment

Unit 3

Before the removal of large debris

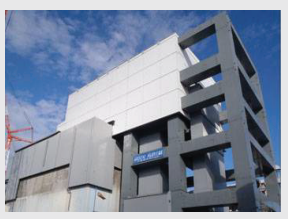
After the removal of large debris

Currently implementing radiation reduction measures in preparation for the installation of fuel removal cover, fuel handling machine, etc.

Unit 4

Overhead crane / fuel handling machine

Removal of on-site transportation containers



Exterior (fuel removal cover)

3 Improving reliability through the introduction and administration of more permanent facilities

- Introducing more permanent facilities to boost reliability
  - - Main measures include installing a new Central Monitoring Room in FY2016 and commencing the construction of a power supply base on the Units 5 / 6 side in FY2016.
- Improving the working environment in view of the feedback of on-site workers
  - - Setting up a large resting room and canteen in FY2014 as well as building a new administration building in FY2015
  - - Carrying out decontamination to reduce on-site radiation levels.
- Reinforcing the organizational administration structure
  - - Improve handling of task-specific projects in order to resolve a diverse range of miscellaneous decommissioning tasks as they arise; ensuring that the administration of the new project management structure is established in one year, and that resources are appropriately distributed among various on-site tasks within 3 years to achieve flexible and swift project management
- Reinforcing and securing on-site human resources for decommissioning
  - - Drawing up a program for fostering and revamping on-site engineering capacity (FY2014) and systematically securing human resources in order to reinforce HR development for long-term decommissioning work
  - - Working in partnership with general contractors and other contractors to explore and implement measures for securing workforce