

# Decontamination work on the first floor at Unit 2 reactor building in Fukushima Daiichi NPS

<Reference>  
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Tokyo Electric Power Company

On Nov. 28, for the purpose of protecting equipments and workers from contamination during the work inside the building, we are starting decontamination for the floor surface of the first floor at Unit 2 reactor building as a preparation for the regular decontamination inside the building, for it is necessary to lower the radiation dose, in order to implement the inside-building work such as investigation inside Primary Containment Vessel (PCV) etc.

In this decontamination work, we plan to 1) decontaminate floor surface etc. with a newly adopted remote-controllable decontamination device (Raccoon), and 2) check its effectiveness of removing contamination and lowering the atmosphere radiation dose.

In future, we are going to check the effectiveness of this decontamination , and examine decontamination of a whole building

# 1. Remote-controllable device and work overview

Remote-controllable device: Raccoon (consisting of travelling and relay units)

Travelling unit

(Exchangeable for jet head/brush head/suction head)

- Size : Width 462 × Length 905 × Height 302 millimeters ; 35kg (jet head)
- Travelling speed: 0 to 10 meters per minute
- Amount of water supplied: Approx. 13 liters per minute (jet head) • supply water pressure (head part): Approx. 15MPa

Relay unit

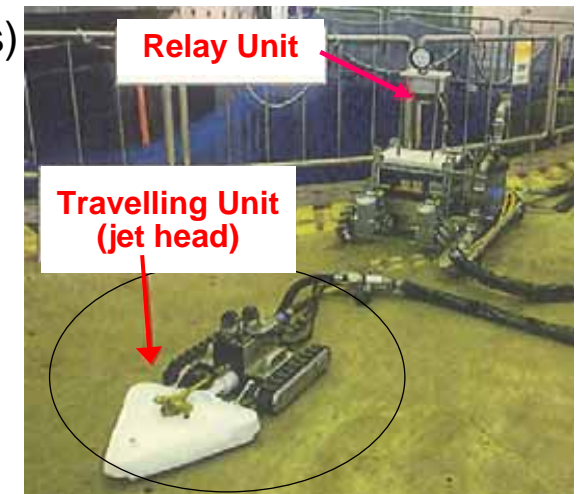
- Size: Width 631 × Length 1152 × Height 1158 millimeters; 100kg
- Travelling speed: 0 to 10 meters per minute

Wired remote controlling

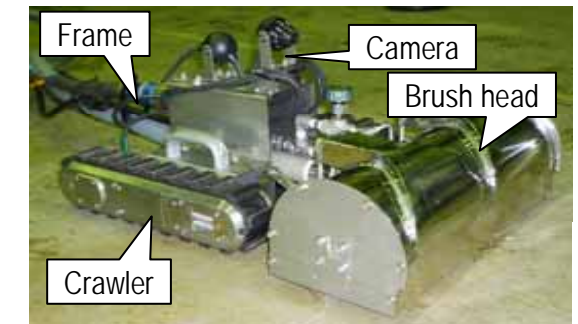
Decontamination: On the first floor at Unit 2 reactor building

Work overview

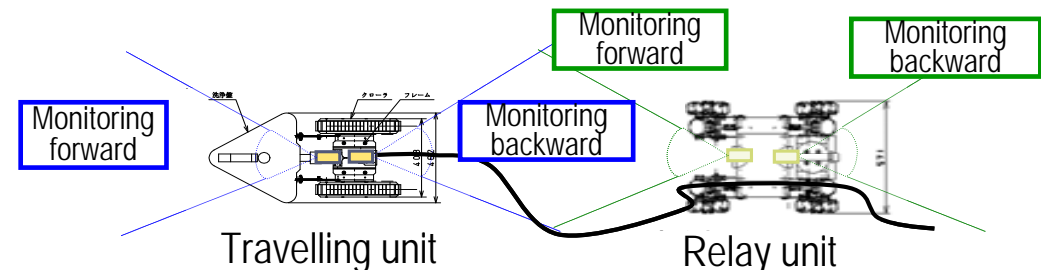
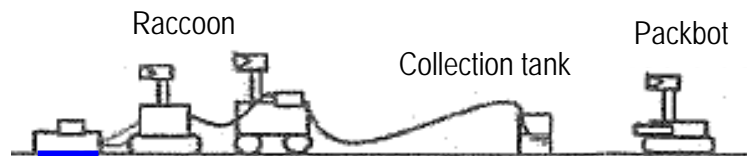
Water is supplied on the floor surface from the inside of the unit head (jet and brush), and the drainage is sucked inside the head at the same time.



Travelling unit (with jet head)

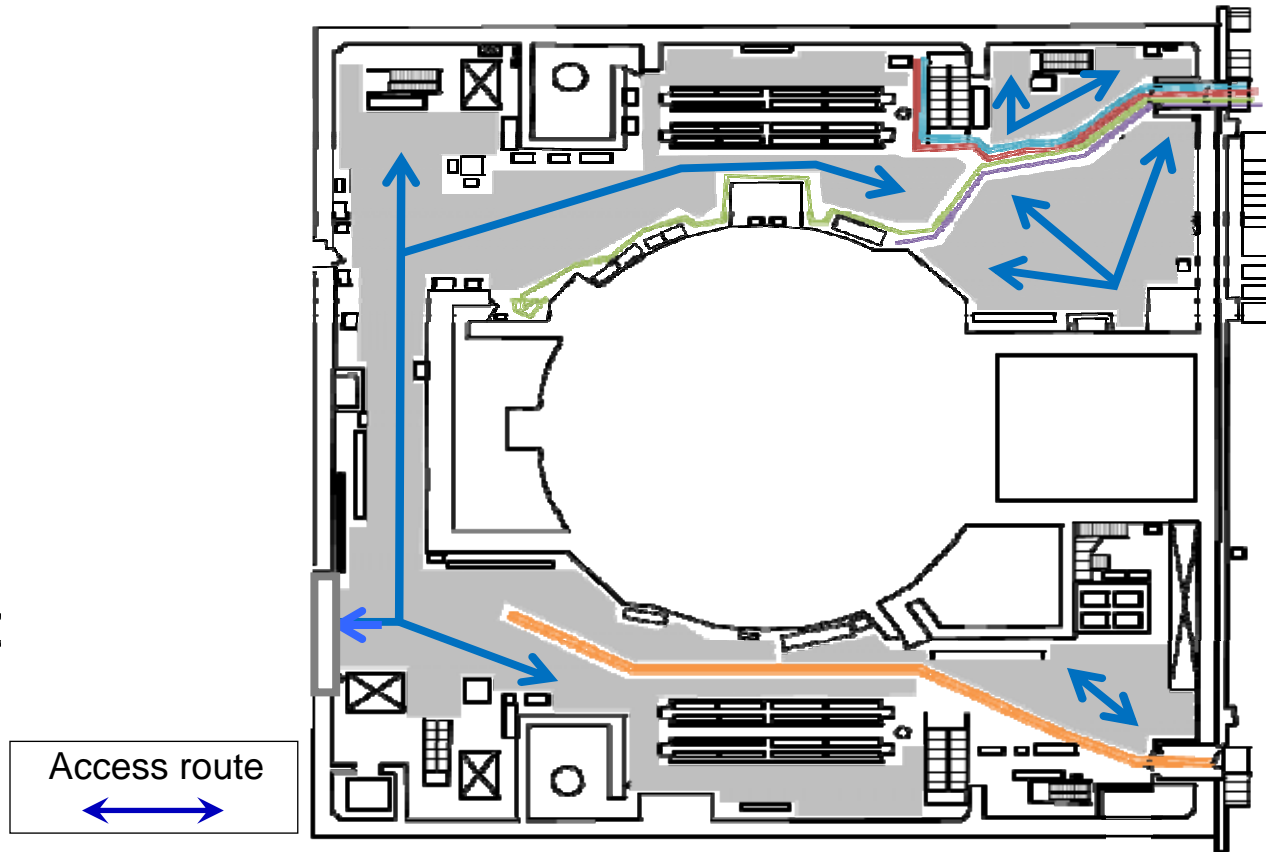


Travelling unit (brush head)



## 2. Decontamination area

Decontamination area: On the 1<sup>st</sup> floor at Unit 2 reactor building (Floor surface)



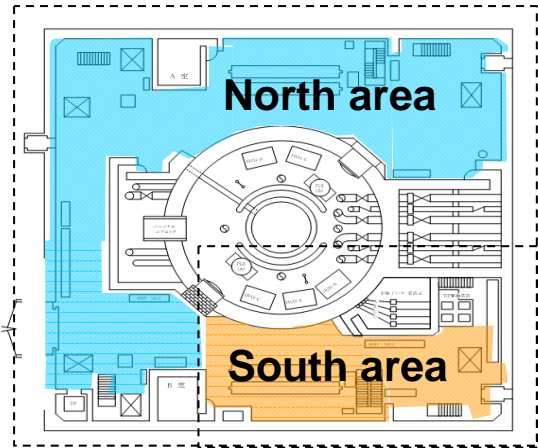
Water-sprinkling direction



Relay unit

- Wired remote controlling on the first floor at Unit 2 Turbine Building
- Packbot in operation and monitoring during the work implementation

### 3. Work schedule



1<sup>st</sup> floor at Unit 2 reactor building

Along with collecting and removing interventions, decontamination for the floor surface will be conducted. As for the north area, decontamination is starting on Nov. 28, 2013. In the south area, it is starting in between the end March and the early April, 2014.

Work content	Month	Nov.		Dec.					Jan., 2014				Equipment	
	Week	3rd	4th	1st	2nd	3rd	4th	5th	1st	2nd	3rd	4th		
Collecting and removing interventions		[Blue bar spanning Nov 3rd to Dec 3rd]												
Decontamination for floor surface			[Blue bar spanning Dec 1st to Jan 3rd]											Raccoon