Removal of Obstacles Including Debris, etc., on the First Floor of the Reactor Buildings of the Fukushima Daiichi Nuclear Power Station Units 1 and 3

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1. The purpose and overview of the removal work

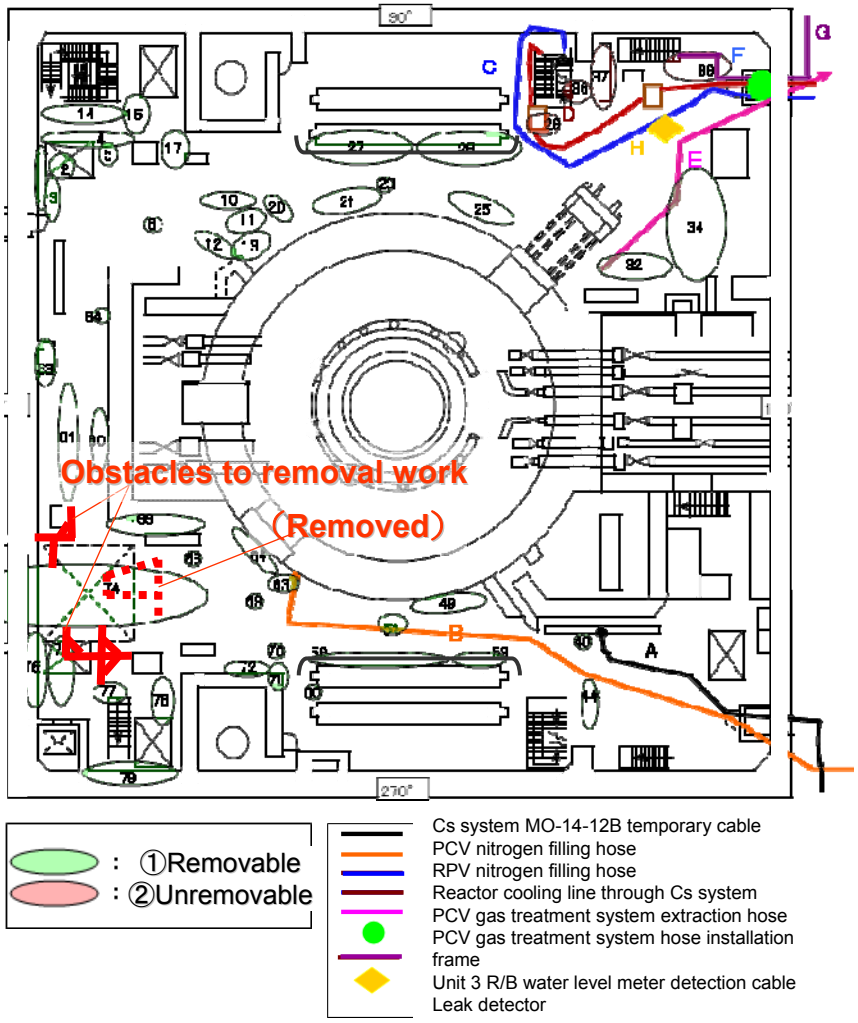
【Purpose】Securing the access route for decontamination equipment

- As the reactor buildings of the Fukushima Daiichi Power Station Units 1 and 3 have high radiation dose rates, we decided to perform our work using remote-controlled heavy equipment.
- The purpose of the work is to remove the concrete debris and duct debris, etc., scattered throughout the reactor buildings, which were generated by explosions, etc.

Remote-controlled heavy equipment

ASTACO-SoRa

Example of objects to be removed:
Fallen ducts



Distribution of obstacles on the first floor of Unit 3

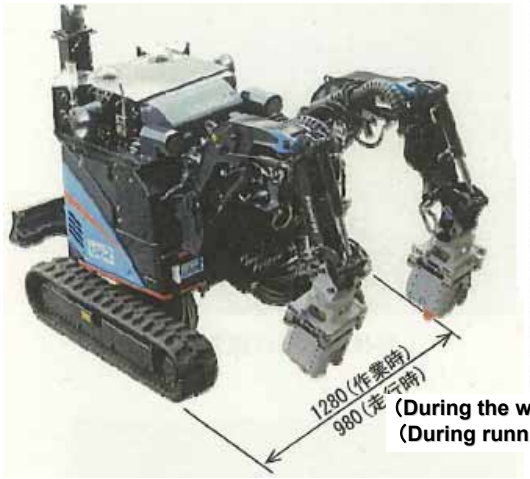
2. Scheduled work processes

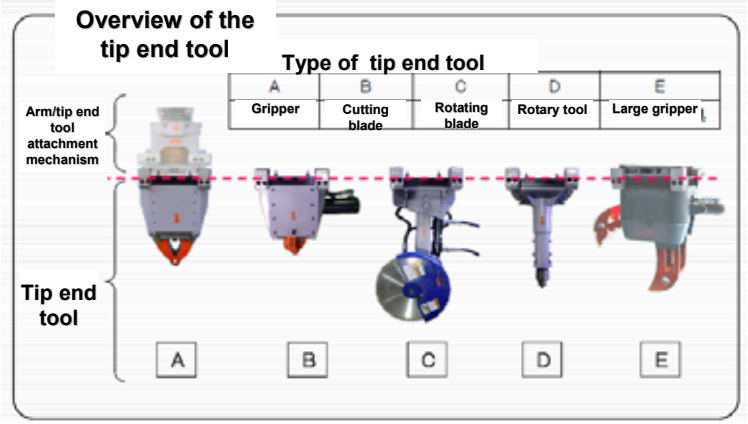
【Scheduled work processes】

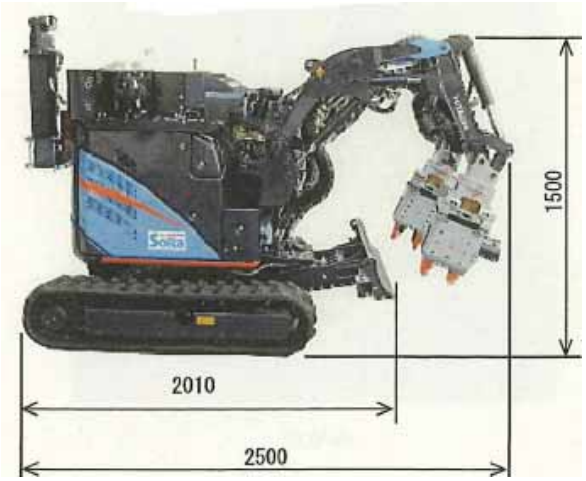
Implementation items	2013 (H25)
Removal of obstacles in Unit 3	South side area: Field surveys → Removal of obstacles (Relocation of interfering parts); West/north side areas: Field surveys → Removal of obstacles **7/12 PackBot Commencement of surveys** **7/25 ASTACO-SoRa Commencement of removal work** **Around October （After the completion of work in Unit 1） Resumption of removal work**
Removal of obstacles in Unit 1	Field surveys → Removal of obstacles **Around the middle of August and onwards Commencement of removal work in Unit 1**

※: The highest acceptable dose is a maximum of 4mSv/h

Reference: Unmanned heavy equipment (ASTACO-SoRa) and an investigating robot (PackBot)







Weight	2.5t
Lifting load (using both arms)	300kg
Lifting load (using a single arm)	150kg
Workable height	2500mm

Control board

Unmanned heavy equipment with two arms (ASTACO-SoRa)

Weight	About 30Kg
Total length	700mm
Total width	530mm
Total height	190mm (The highest reachable height of the head camera) 2270mm

Investigating/work monitoring robot (PackBot)