

# Fukushima Daiichi Nuclear Power Station Progress of Fuel Removal from Spent Fuel Pools

July 2, 2026

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Tokyo Electric Power Company Holdings, Inc.

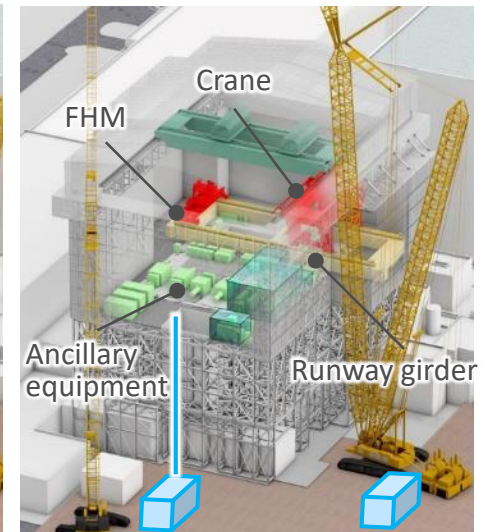
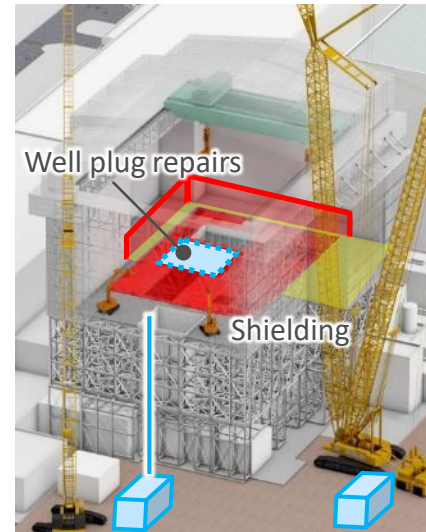
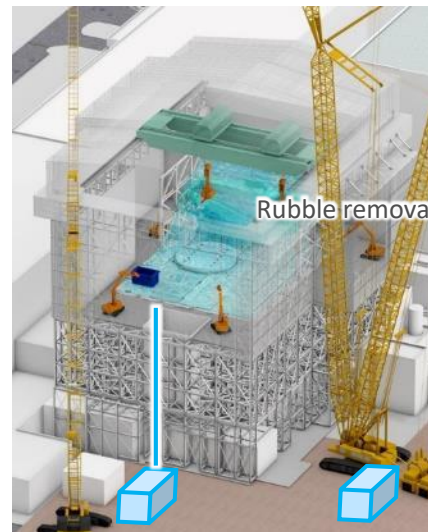
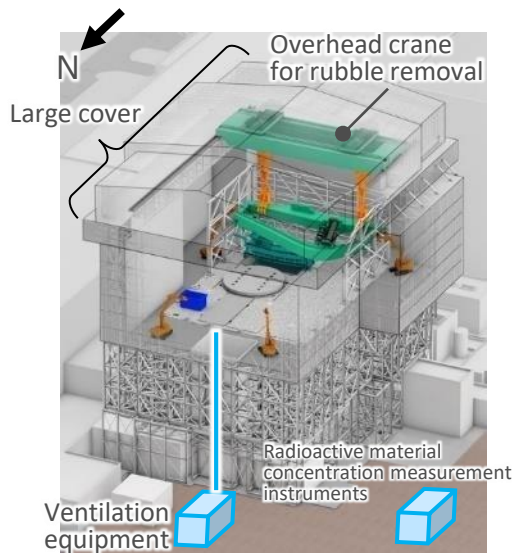
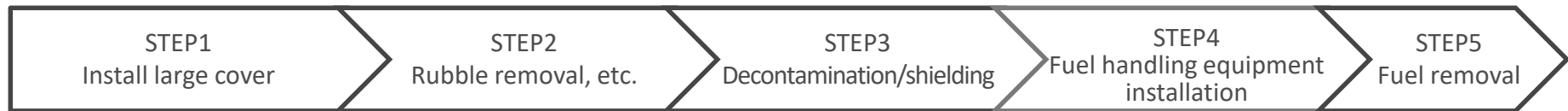


# 1-1. Unit 1 Fuel removal from the spent fuel pool plan overview

- The 392 fuel assemblies\* are being stored in the Unit 1 spent fuel pool will be removed in order to relocate them to the common pool where they can be cooled and stored in a more stable manner.  
\* 292 spent fuel assemblies and 100 fresh fuel assemblies
- Prior to fuel removal, a large cover that encompasses the entire reactor building is built, rubble removed from under the large cover, the operating floor decontaminated/shielded, and fuel handling equipment (fuel handling machine (FHM) and crane) installed.

Large cover installation completed  
(January 19, 2026) ▼

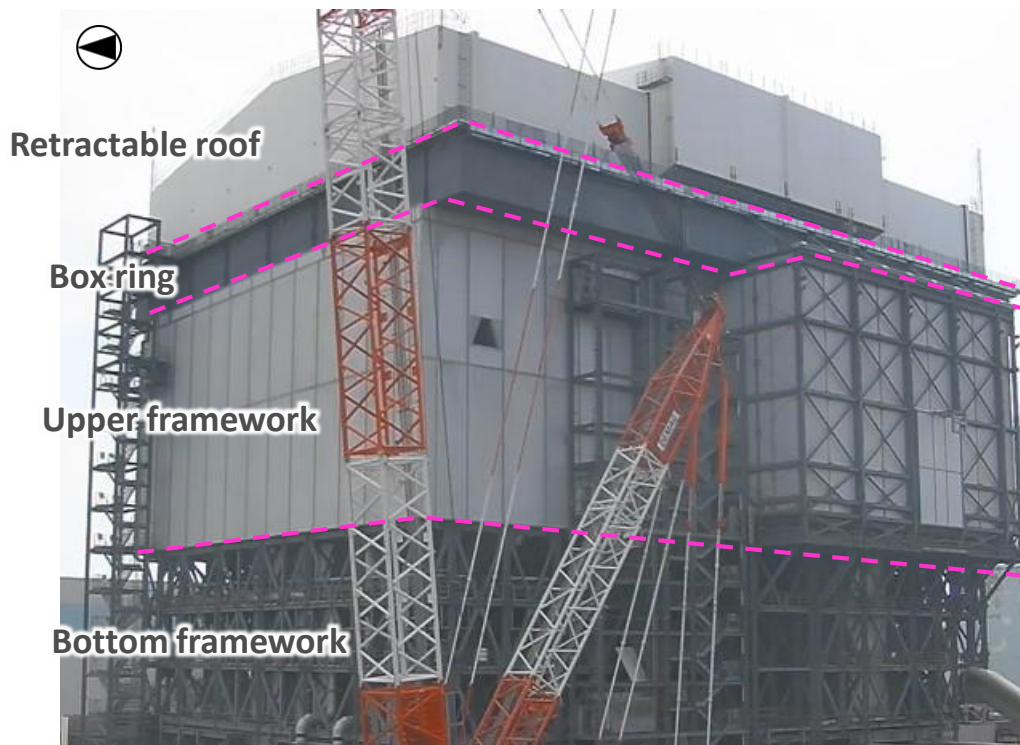
Commencement of fuel removal  
(FY2027-2028) ▼



※These are just concept diagrams and actual location may differ.

## 1-2. Unit 1 Progress status of large cover and ancillary equipment

- The large cover was completed on January 19, 2026.
- The overhead crane for rubble removal passed the completion inspection on March 19, 2026.
- The installation of the ancillary equipment for the large cover was completed on March 25, 2026. (pre-use inspection completed)
- The factory shipment of the Unit 4 fuel handling machine, to be utilized for Unit 1, was completed on April 9, 2026.
- The ancillary equipment for the large cover began operation on May 13, 2026.



Completion of the large cover (Photographed on March 18, 2026)

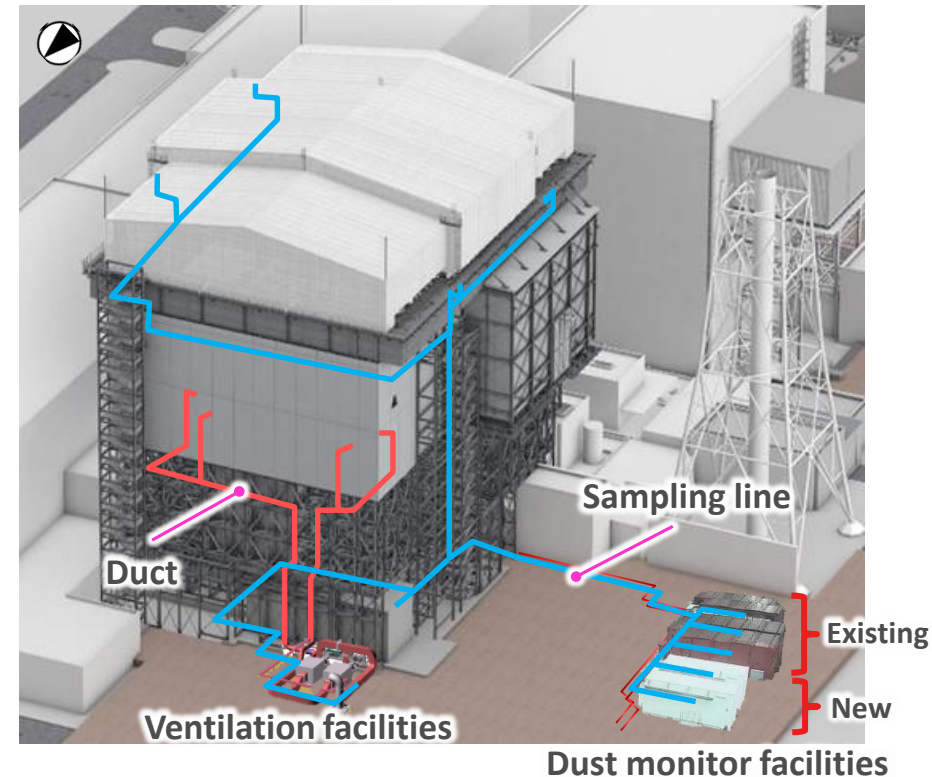
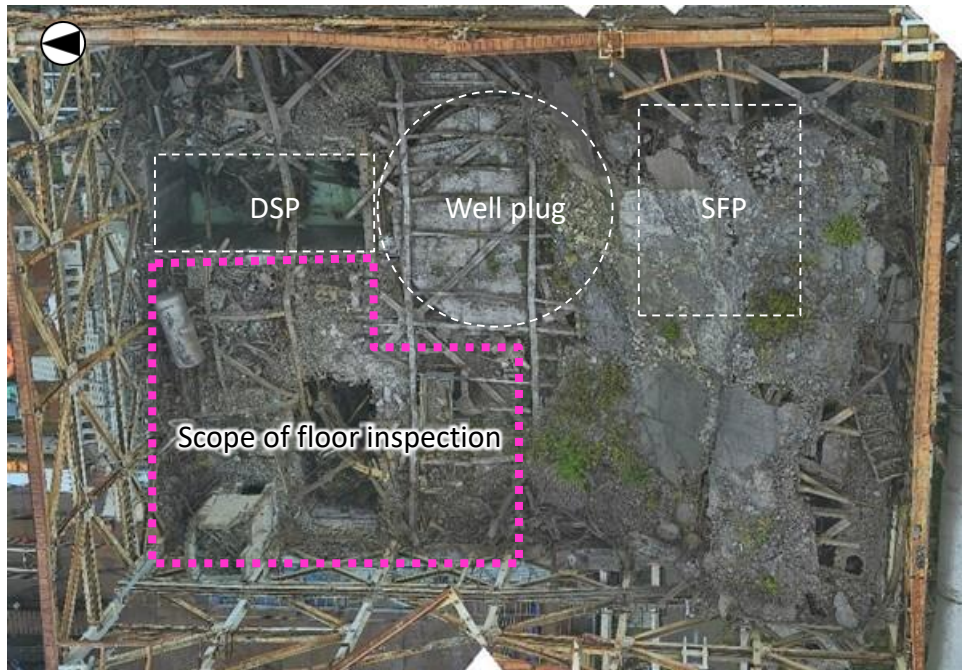
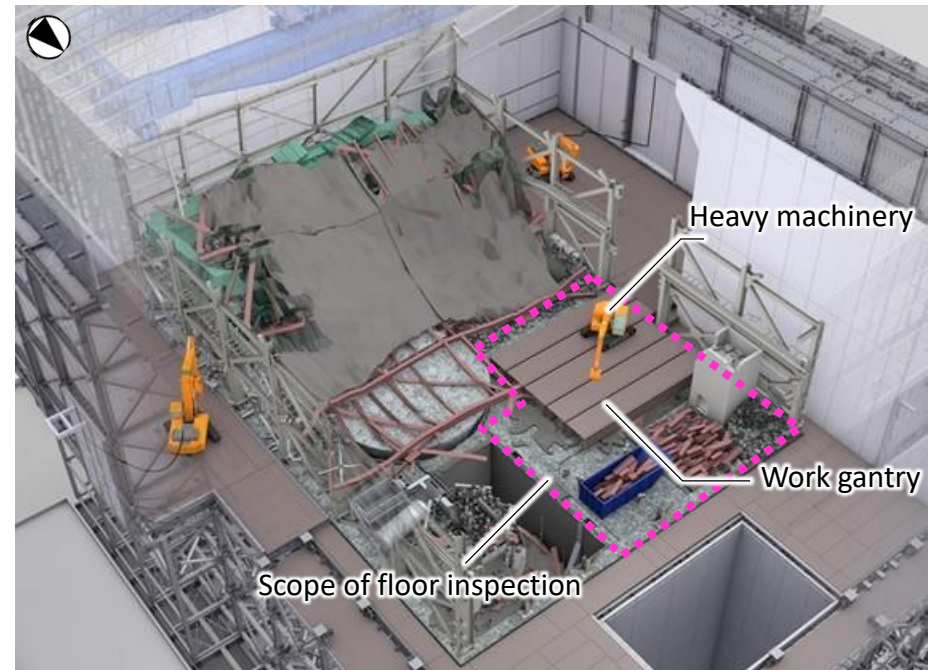


Diagram of large cover ancillary facilities

- Since a rubble processing gantry and heavy machinery will be placed on the north side of the operating floor in order to remove rubble, an inspection of the floor is required.
- During the floor inspection, the rubble will be relocated to check for any significant structural damage to the floor (large cracks, etc. where work gantry supports will be placed, etc.)

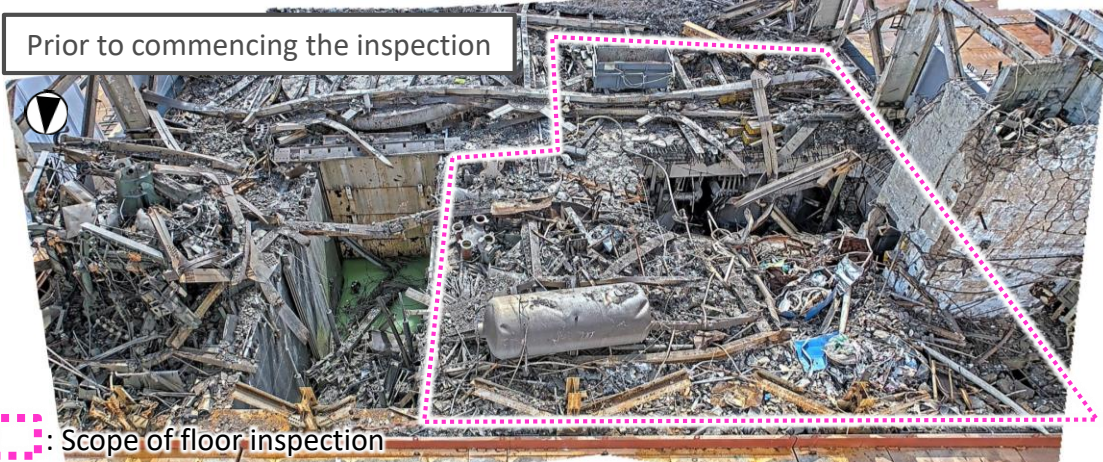


Scope of floor inspection on the north side of the operating floor

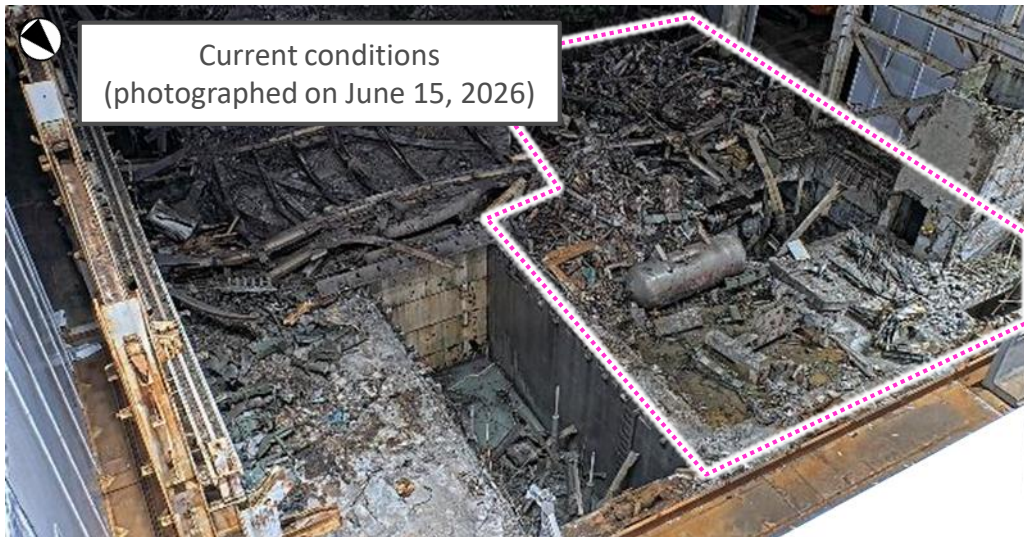


Concept diagram of work gantry placement, etc.

- In conjunction with the commencement of a floor inspection of the north side of the operating floor on January 15, 2026, rubble removal equipment was used to relocate the rubble on the north side to a different location on the operating floor. At this point in time no significant damage has been found to the floor.
- As we continue to relocate the rubble the condition of the floor within the scope of the inspection will be checked.



Relocating rubble (photographed on May 21, 2026)

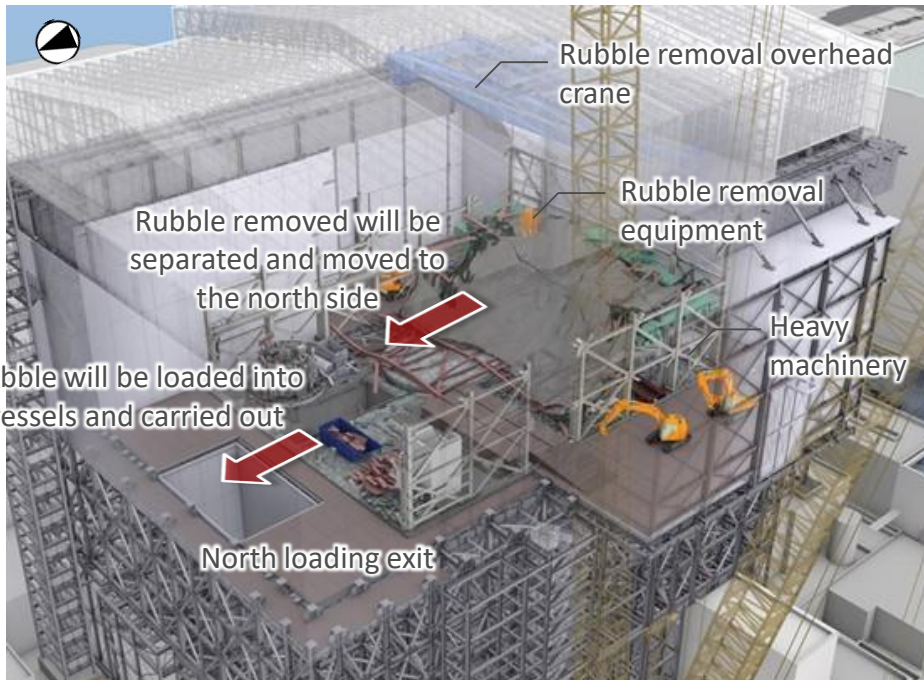


Relocating rebel (photographed on June 15, 2026)

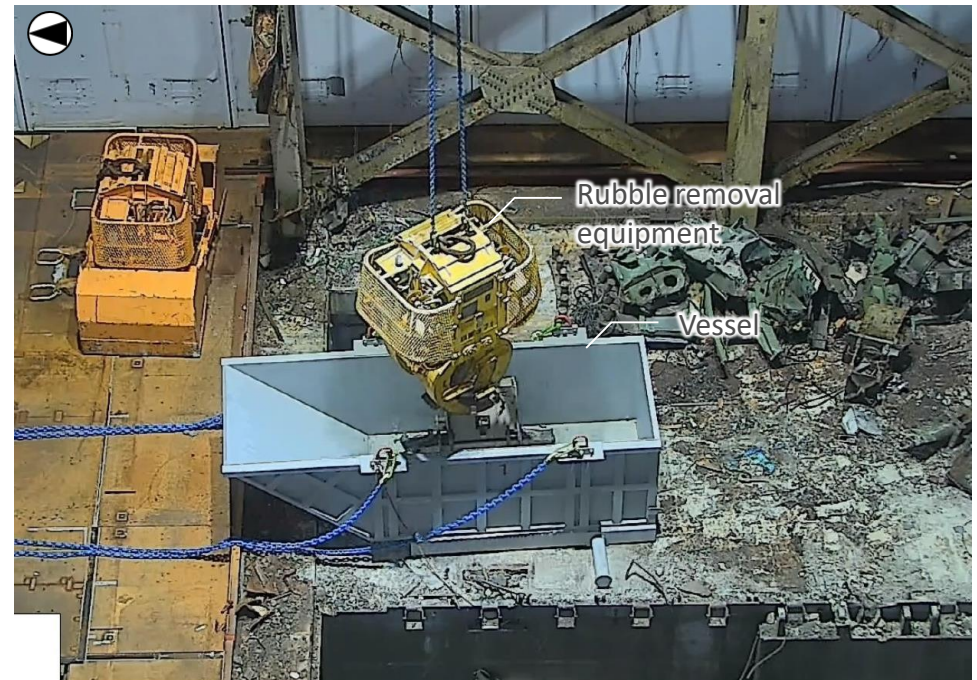
Scope of floor inspection on the north side of the operating floor

## 1-5. Unit 1 Commencement of rubble removal

- Debris removal commenced on June 22, 2026.
- Currently, rubble on the north side of the operating floor is being removed using a rubble removal system and loaded into transport containers (vessels, etc.) for removal.



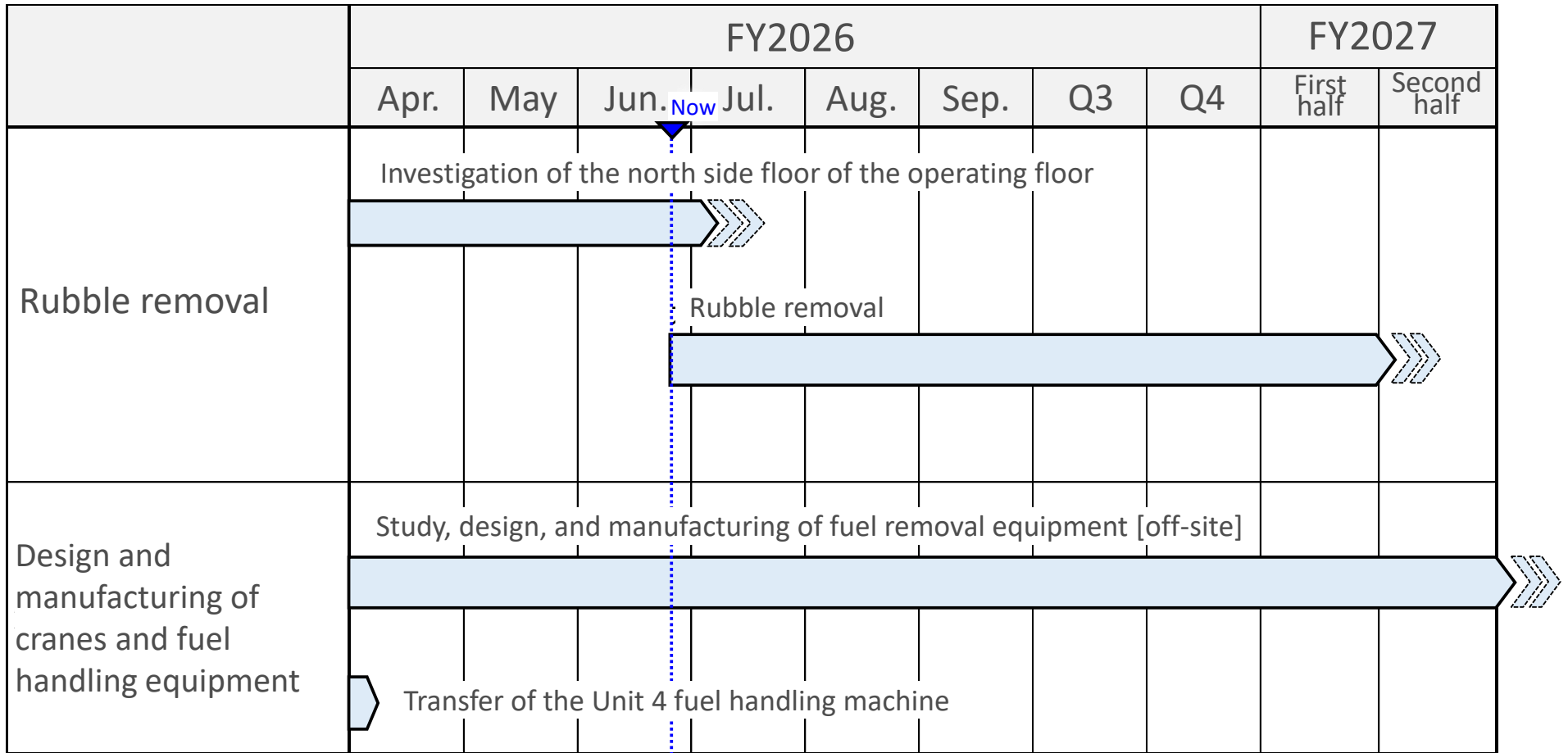
Concept diagram of rubble removal



Status of rubble removal (photographed on June 22, 2026)

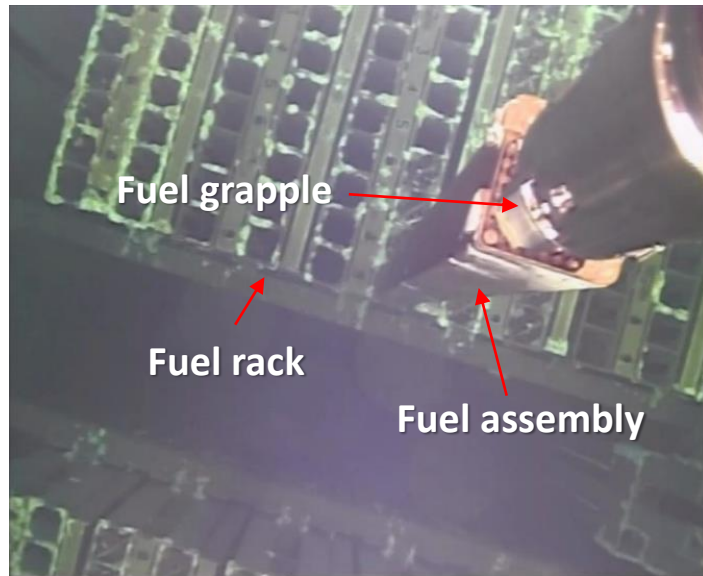
# 1-6. Unit 1 Upcoming schedule for fuel removal

- Rubble removal began on June 22, 2026, and the investigation of the north side floor of the operating floor is ongoing.
- We will continue with this task while prioritizing safety.

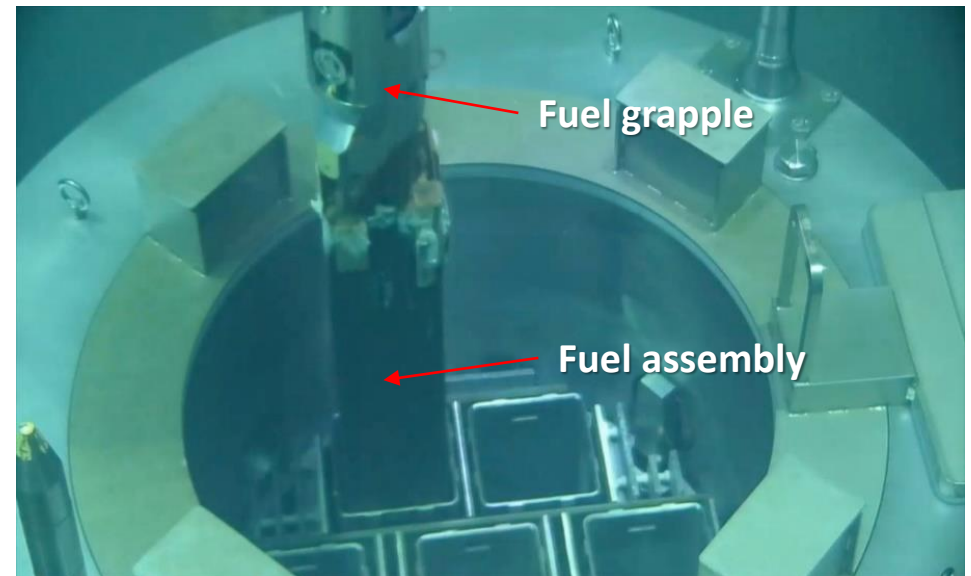


## 2-1. Unit 2 Commencement of fuel removal from the spent fuel pool

- Training using the actual fuel handling equipment and on-site transport containers (hereinafter referred to as “casks”) along with mock fuel was completed on May 29, 2026. Fuel removal operations commenced on June 2, 2026.
- The 615 fuel assemblies stored in Unit 2 spent fuel pool will be removed sequentially, seven at a time starting from the newer fuel, with a total of 89 removal operations planned.
- As of July 2, 2026, the removal of 14 new fuel assemblies to the common pool has been completed (the second of a total of 89 operations).



Start of lifting the first fuel assembly from the rack  
(around 12:00 p.m. on June 2)



The first fuel assembly being loaded into the cask ※  
(around 12:20 p.m. on June 2)

※Cask can accommodate seven fuel assemblies.

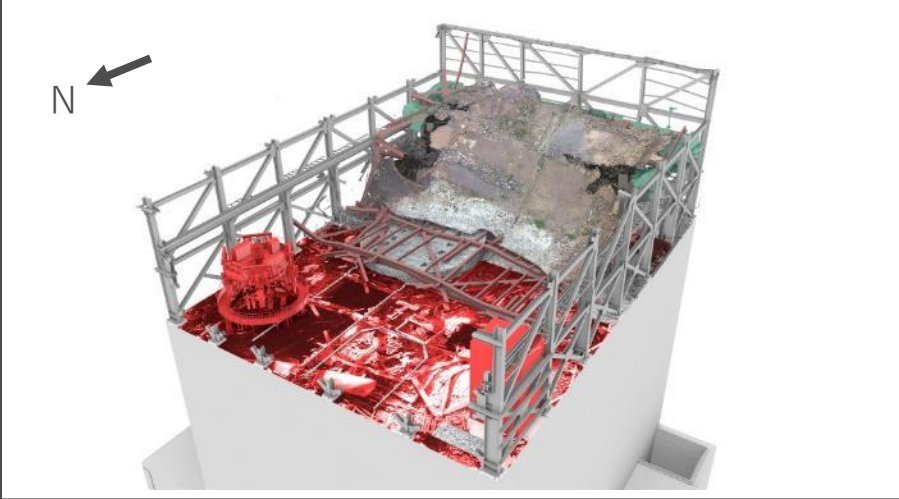
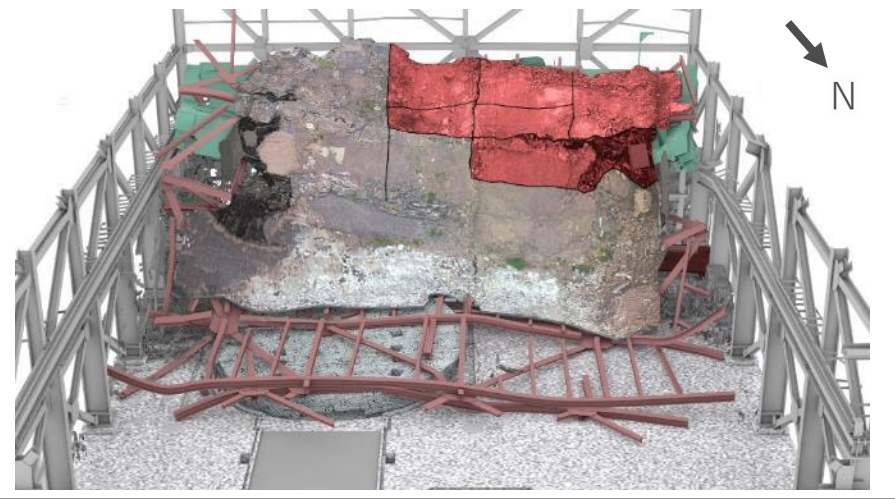
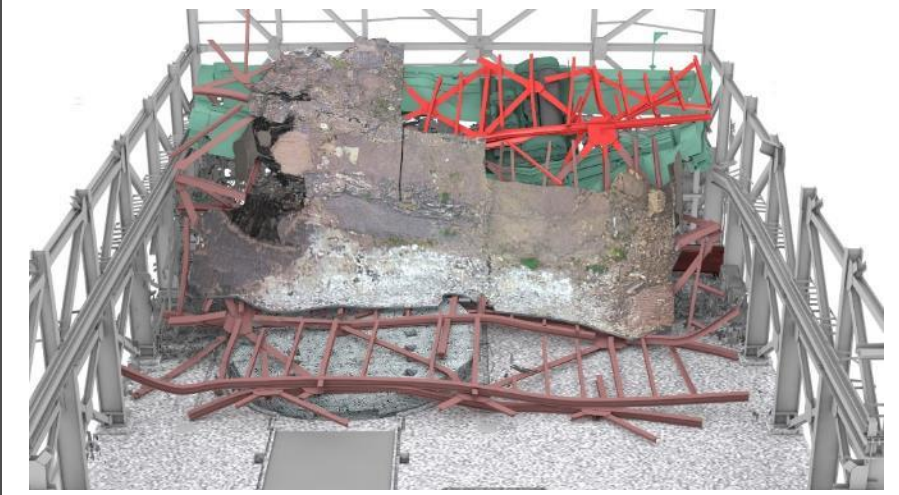
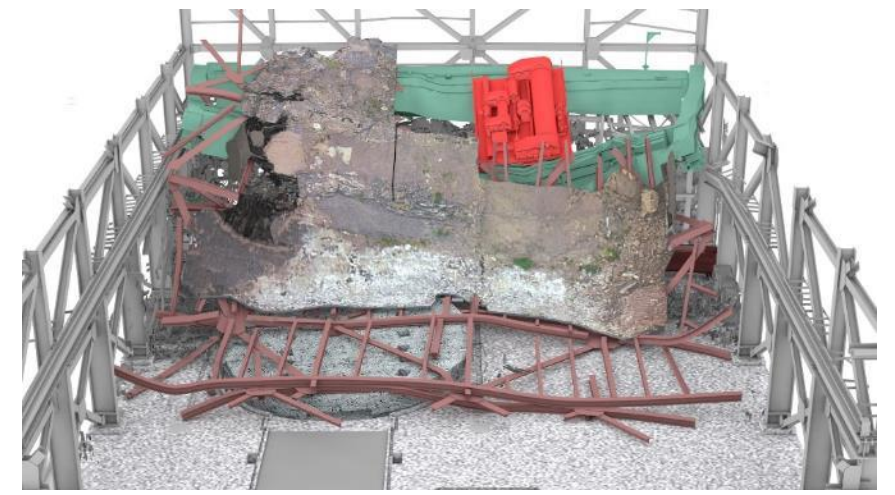
## 2-2. Unit 2 Upcoming schedule for fuel removal

- Fuel removal from Unit 2 commenced in June 2026, with completion targeted within FY2028.
  - ✓ This includes interruptions for equipment inspections and for securing capacity in the common pool (such as transferring stored spent fuel into dry casks and moving them to the high-ground temporary dry cask storage facility to free up space in the common pool).
- We will continue to carry out operations with the highest priority on safety.

	FY2026								FY2027		FY2028	
	Apr.	May	Jun.	Jul.	Aug.	Sep.	Q3	Q4	First half	Second half	First half	Second half
Fuel removal training	Training		Now									
Fuel removal			Commencement of fuel removal on June 2									
Facility inspections			Facility inspections				Facility inspections		Facility inspections			
Common pool Securing available capacity/facility inspections			Facility inspections				Securing available capacity	Facility inspections	Securing available capacity	Facility inspections		
Implementation plan Onsite transport container/fuel removal Wire repair fuel removal	Permits on April 21											

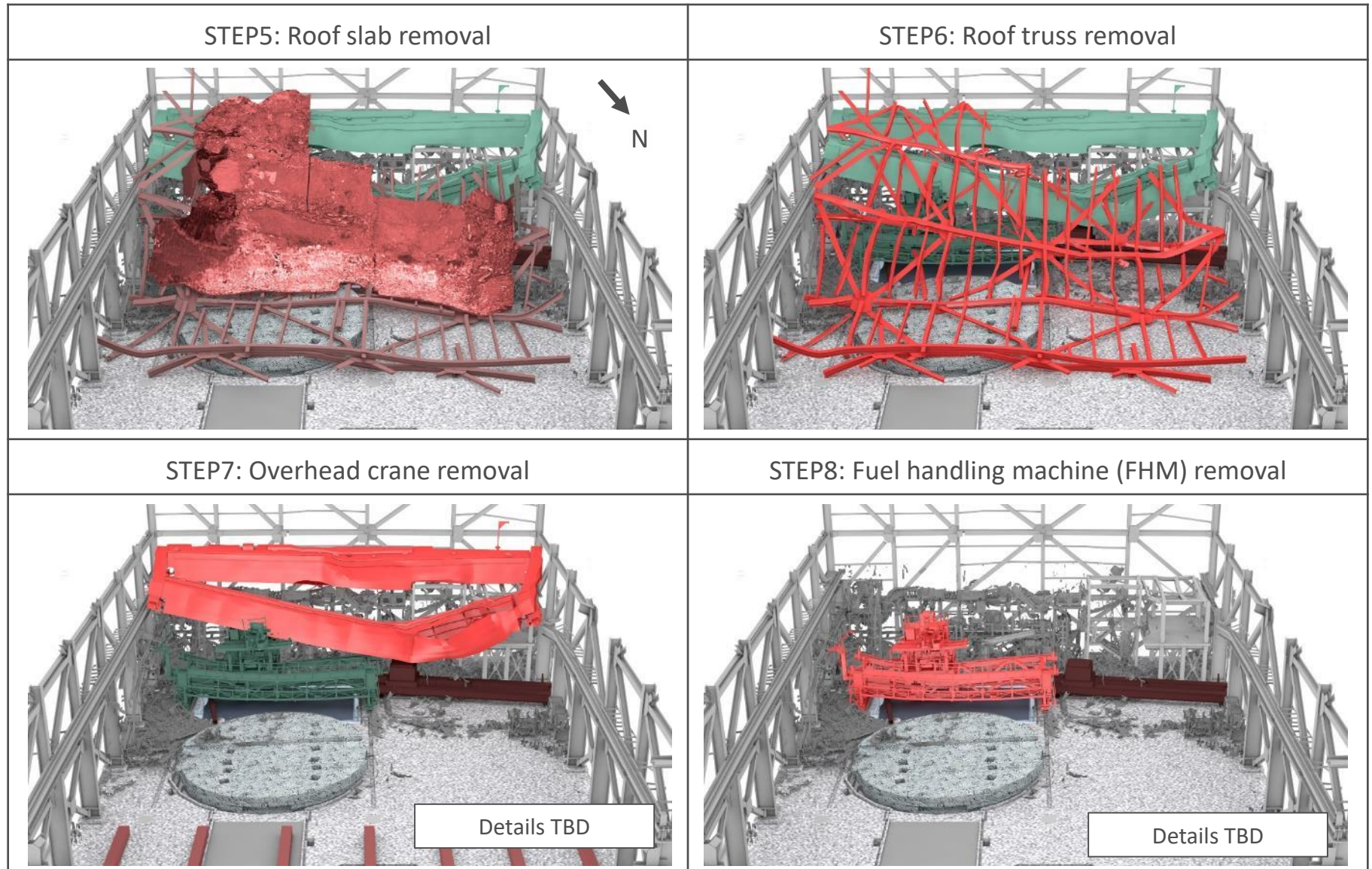
※工程の進捗により変更する可能性有  
 ※線表については、準備・片付け作業期間含む

- The primary steps of rubble removal are as follows:

STEP1: Rubble removal from the north side	STEP2: Roof slab removal
	
STEP3: Roof truss removal	STEP4: Overhead crane trolley removal
	

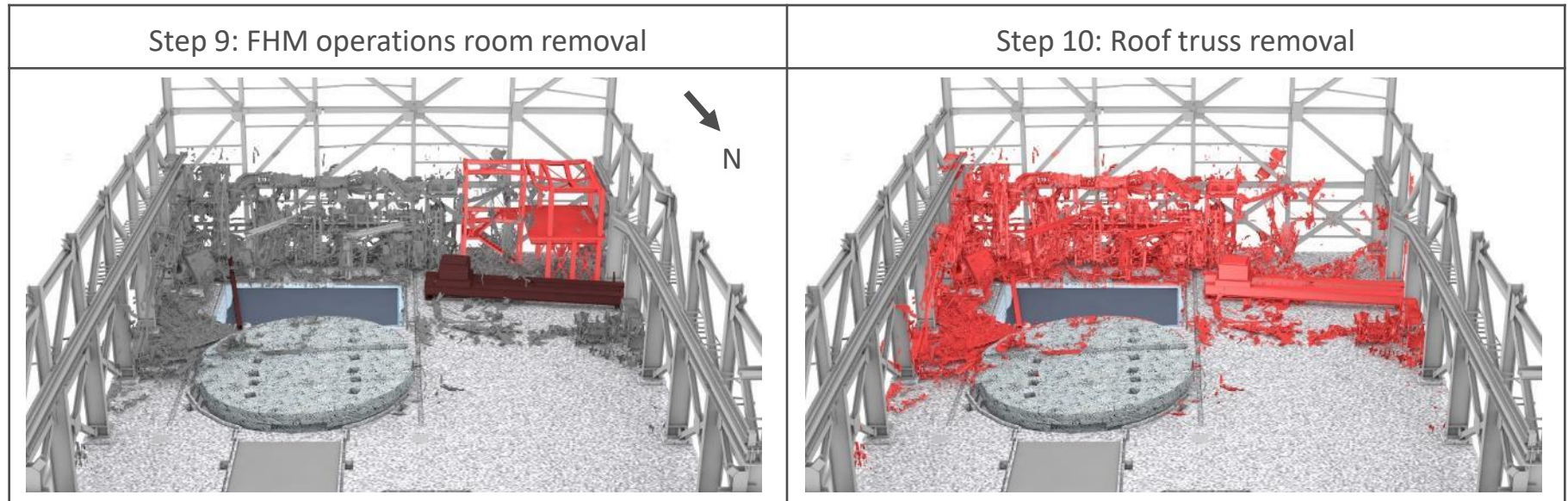
※ Actual conditions may differ from concept images

- The primary steps of rubble removal are as follows:



※ Actual conditions may differ from concept images

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※ Actual conditions may differ from concept images



To decontamination/shielding

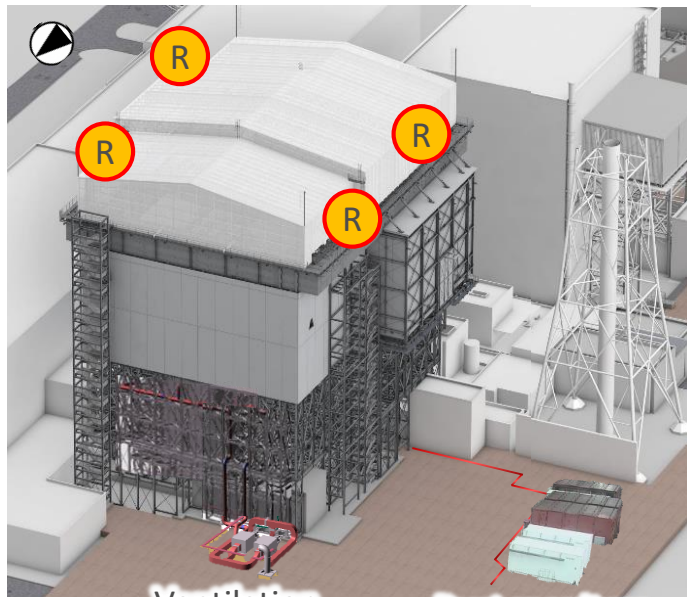
- A large cover has been constructed around the entire reactor building and ventilation equipment passes the air inside the cover through high-performance filters (HEPA filters) before releasing it into the atmosphere thereby reducing the risk of dispersing dust churned up during the removal of rubble
- During the removal of rubble dust concentrations are monitored at the following dust sampling locations
- If an alarm goes off at a location outside the retractable roof (R) or at the ventilation equipment exhaust (R), work is suspended and water is continually sprayed on the rubble

High-High alarm setting:  $5.0 \times 10^{-3} \text{Bq/cm}^3$   
 High alarm setting:  $1.0 \times 10^{-3} \text{Bq/cm}^3$

R : Dust sampling locations

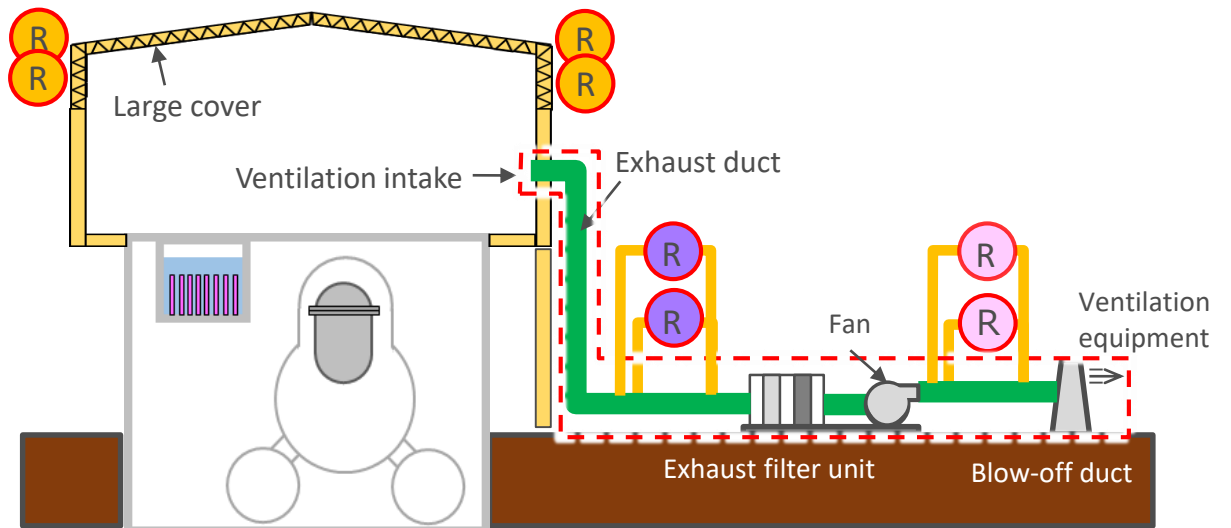
- Outside the retractable roof: Dust concentrations around the moving parts of the large cover are monitored (four points) ※
- Ventilation equipment intake: Dust concentrations inside the large cover are monitored (two points)
- Ventilation equipment exhaust: Post-filtering dust concentrations are monitored (two points)

※ Spares can be switched over to if there are nonconformities with dust monitors



Ventilation equipment

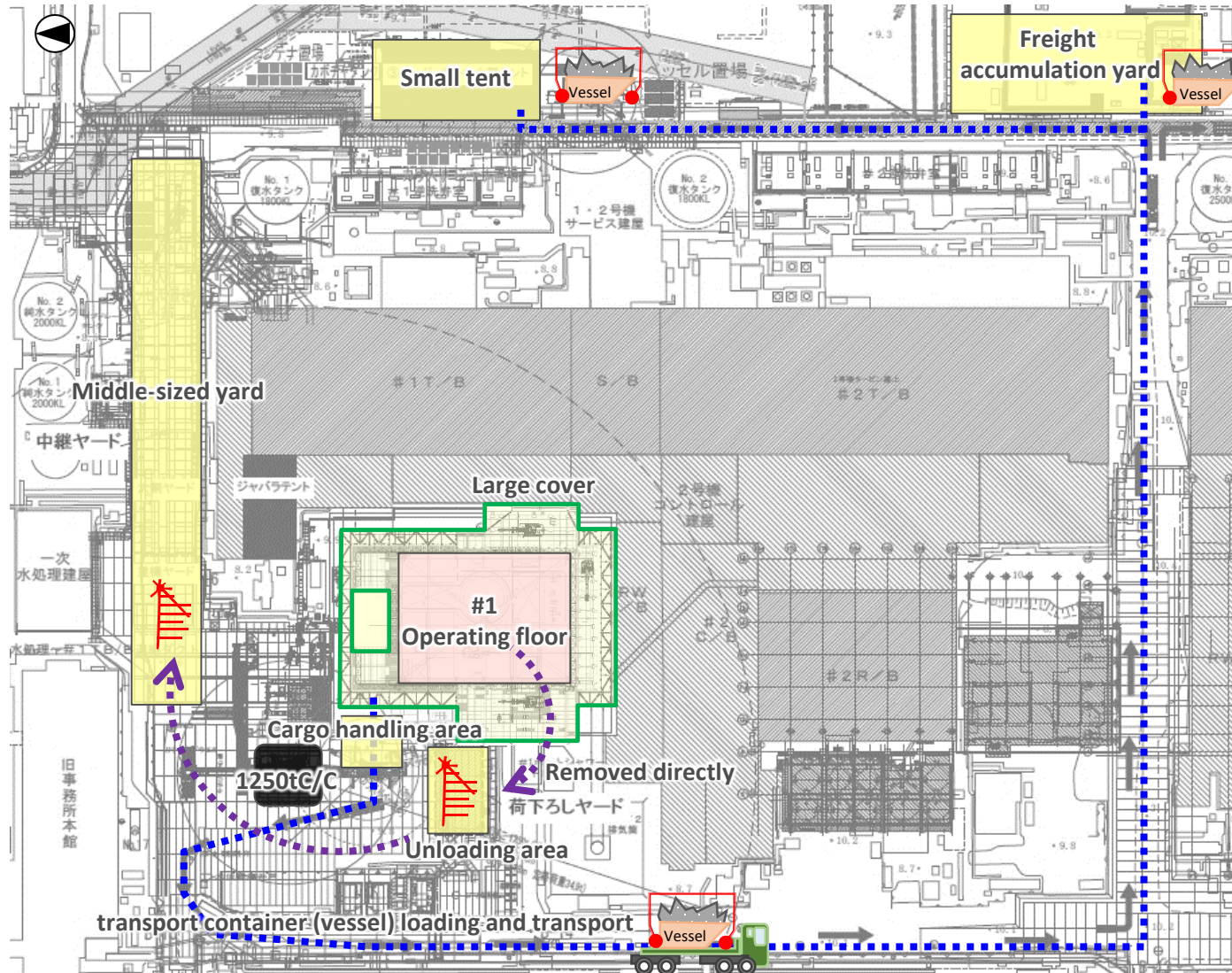
Dust monitors



Overview of dust sampling locations during rubble removal

# [Reference] Unit 1 Rubble transport route

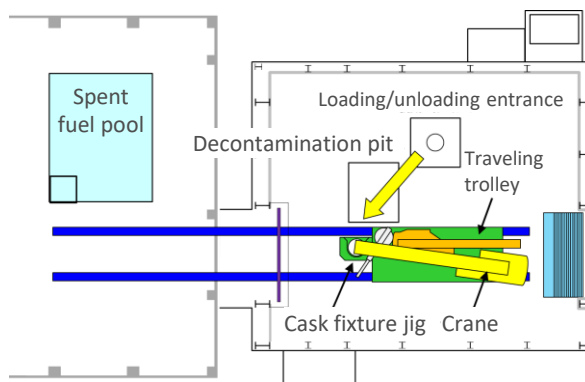
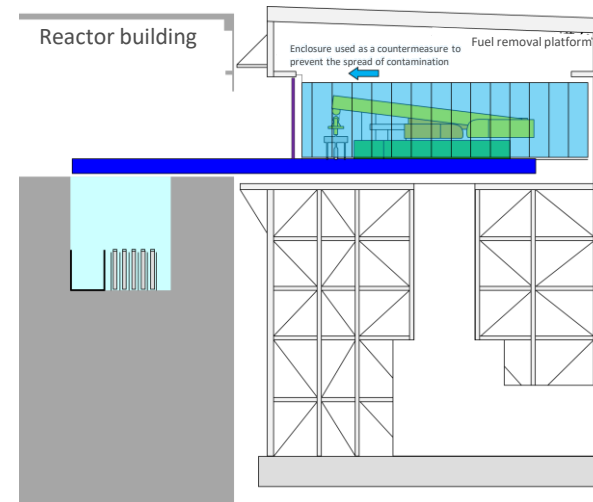
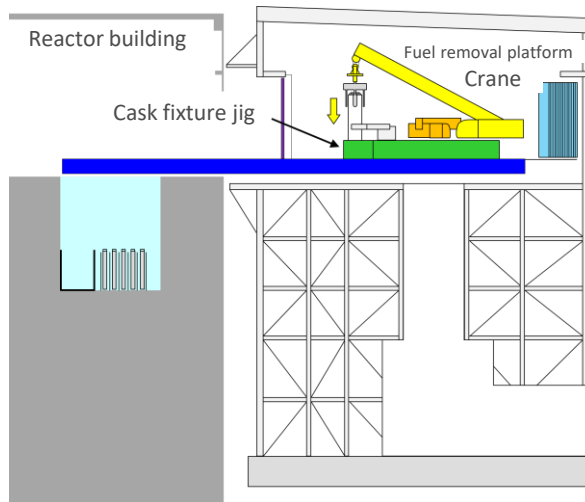
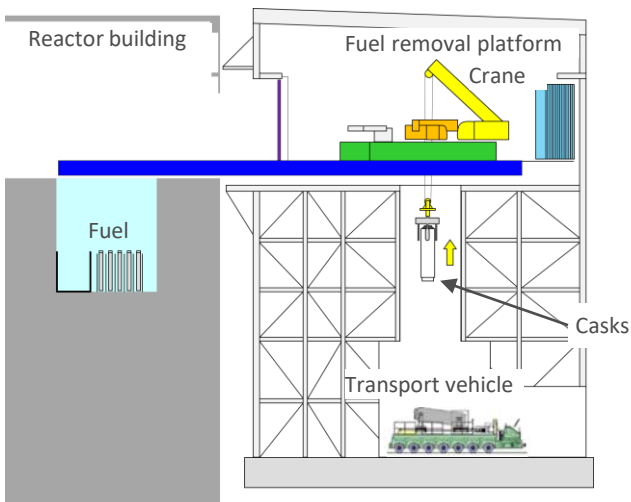
- Rubble loaded into transport containers (vessels) is transported to the freight accumulation yard or the small tent
- Rubble removed via the retractable roof is loaded into transport containers (vessels) in middle-sized yard.



① Casks brought on to fuel removal platform

② Casks are loaded onto the cask fixture jig on the traveling trolley

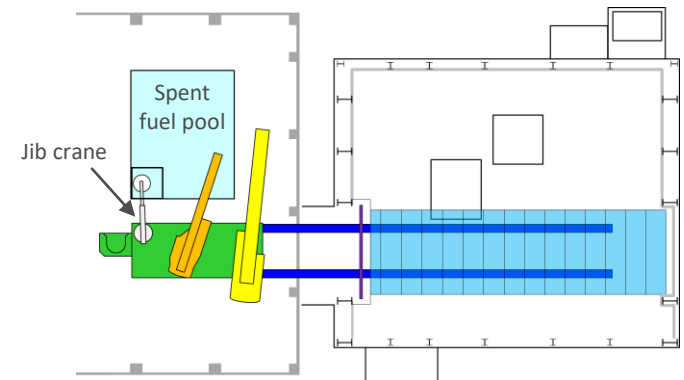
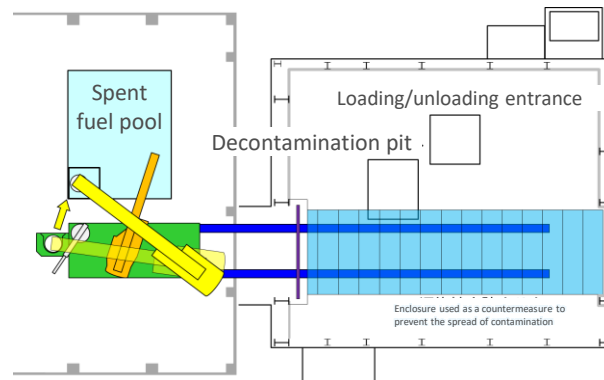
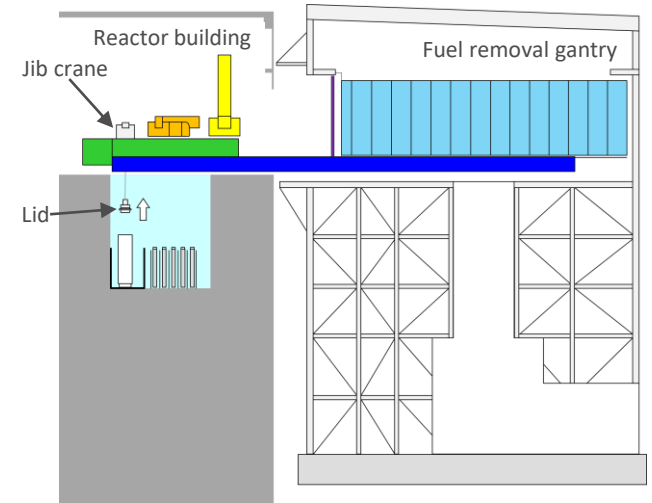
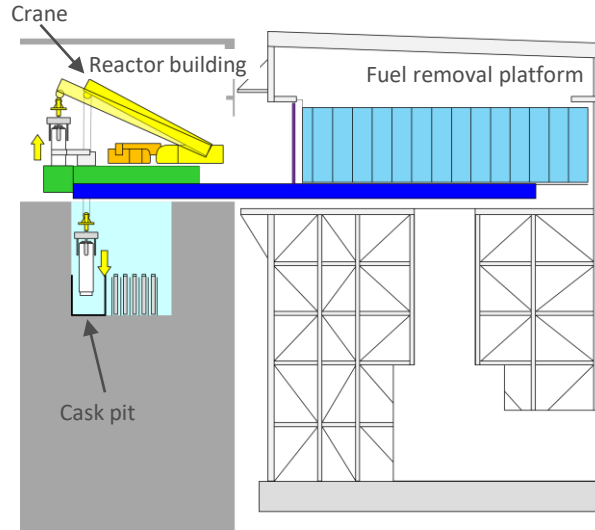
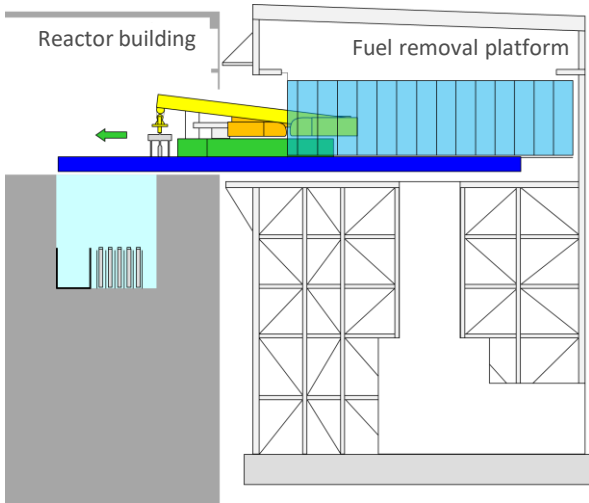
③ The enclosure is being expanded to prevent the spread of contamination at the fuel removal platform.



④ Fuel handling equipment moved into reactor building

⑤ Crane used to lower the cask into the cask pit

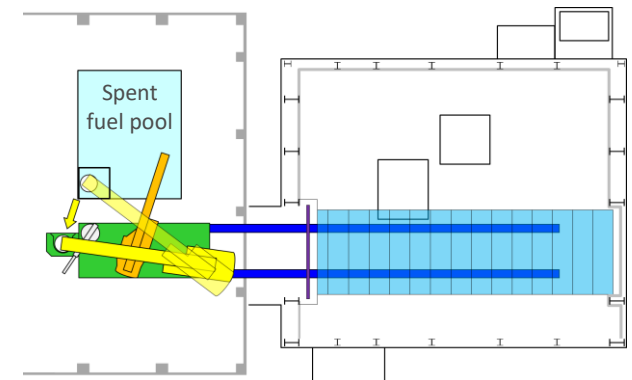
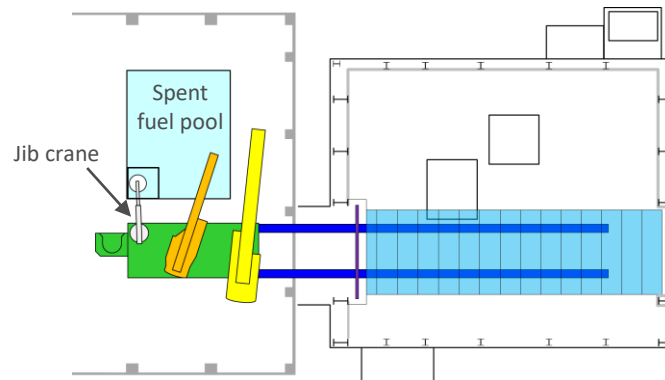
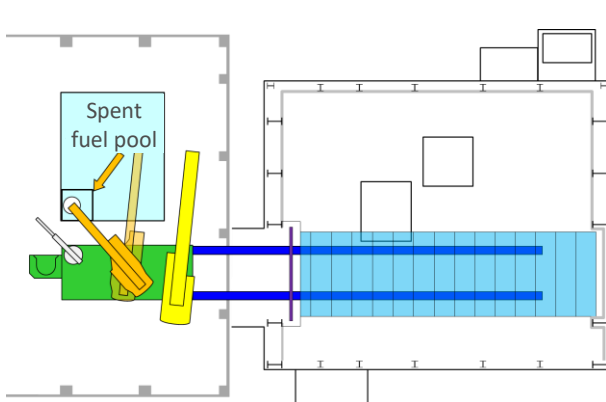
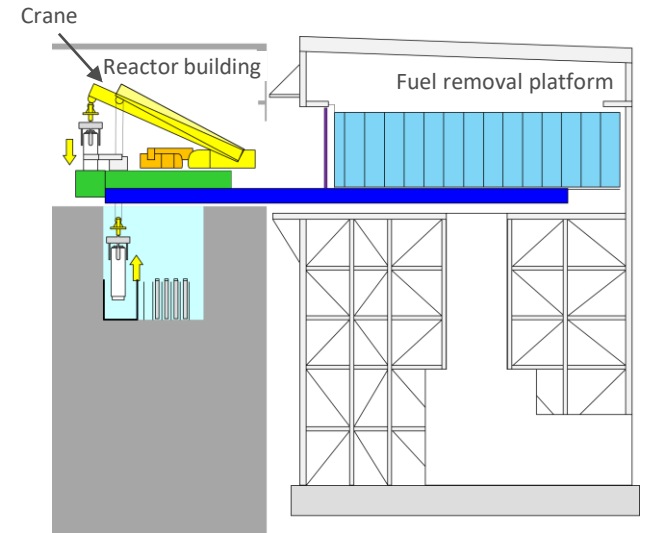
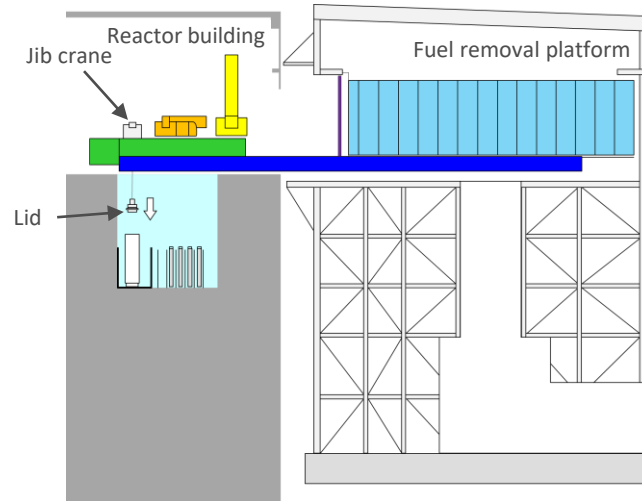
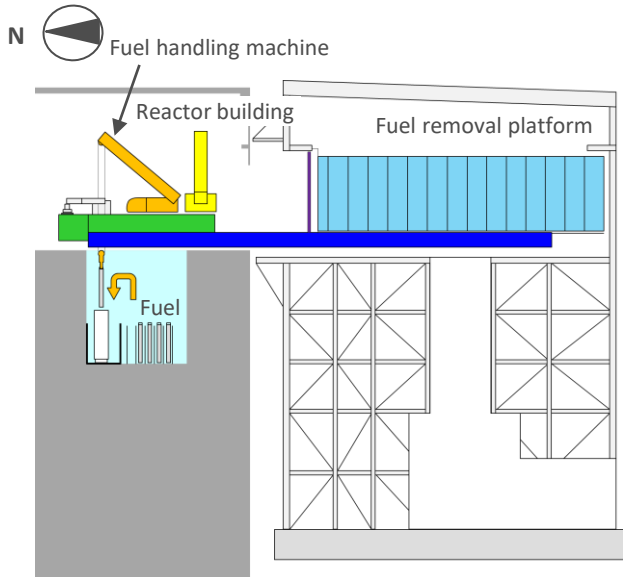
⑥ Cask lid removed with jib crane



⑦ Fuel handling machine used put fuel in the cask

⑧ Cask lid affixed with jib crane

⑨ Crane used to load the cask onto the cask fixture jig



⑩ Fuel handling equipment moved back out to the fuel removal platform, checked for contamination and fold up the enclosure to prevent the spread of contamination

⑪ Crane used to move the cask into the decontamination pit where the cask is decontaminated

⑫ The cask is lowered down from fuel removal platform and carried away

