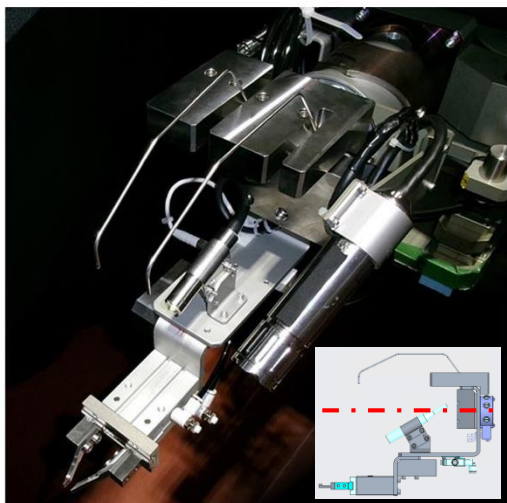
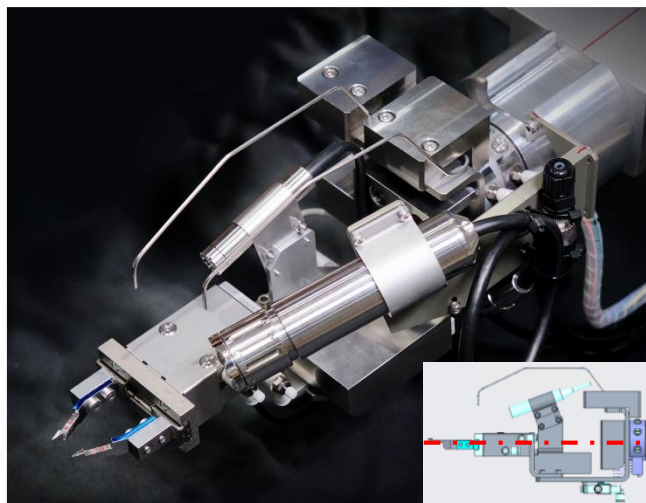


- In preparation for the second fuel debris trial retrieval from Unit 2 the end jig of the telescopic device has been improved and verification tests completed at the factory.
- For about one week starting around March 25, training on connecting push pipes for workers will be implemented on site (Unit 2 reactor building). After the proficiency of the workers has been confirmed, cameras attached to the body of the telescopic device (① end jig monitoring camera, ② camera on the end of the arm) and improved end jig components will be replaced.
- As such, we will proceed with preparations with the aim of commencing the next fuel debris trial retrieval using the telescopic device around the middle of April, but the exact date will be determined based upon worker proficiency and operating condition of the device.



Prior to improvements



After improvements

Improved end jig

(Stability has been improved by moving the location of the gripper to the center of rotation of the end jig)

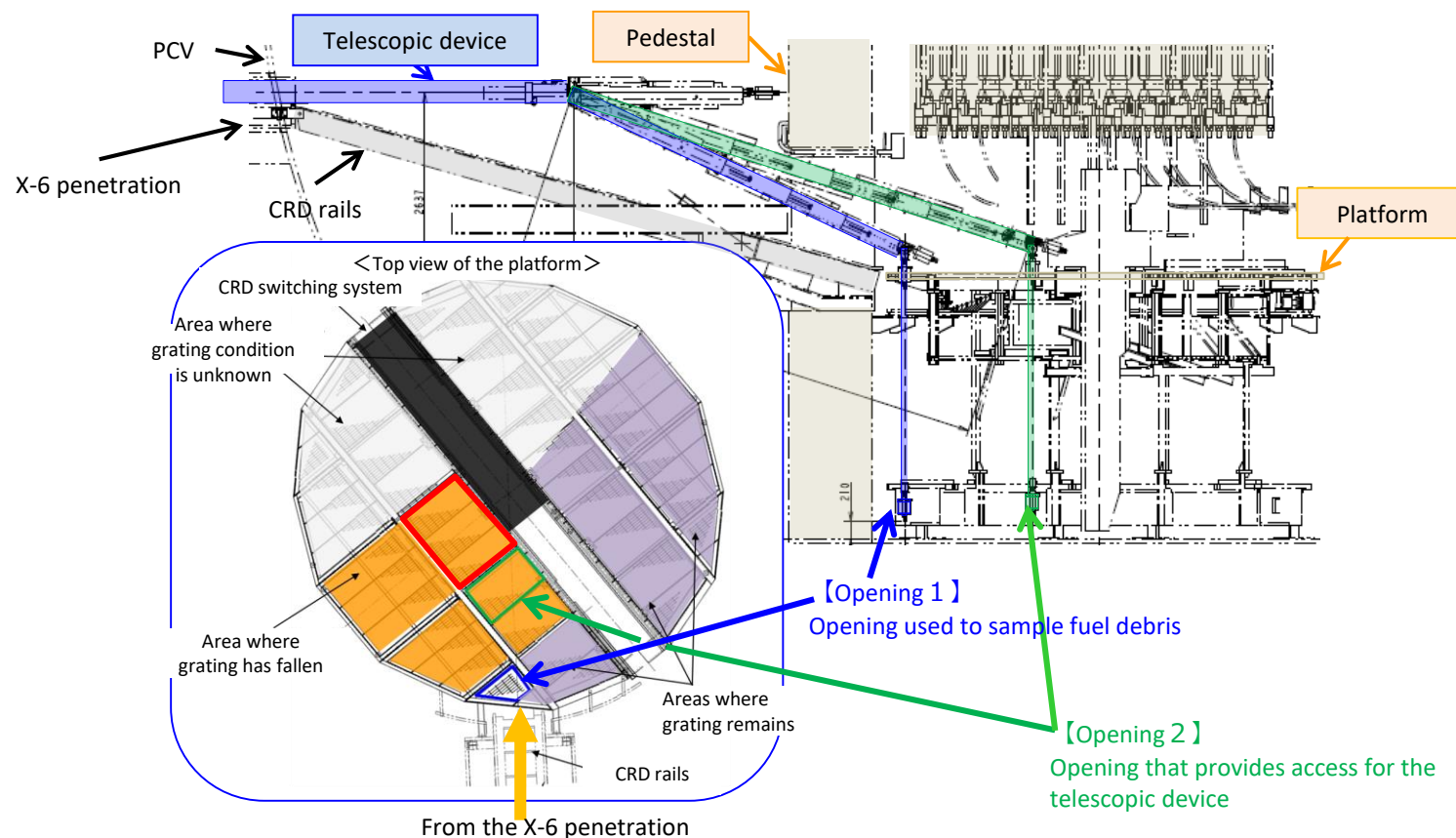


Push pipe training

※ All photos were taken on March 13, 2025

Workplan for retrieval fuel debris with the telescopic device

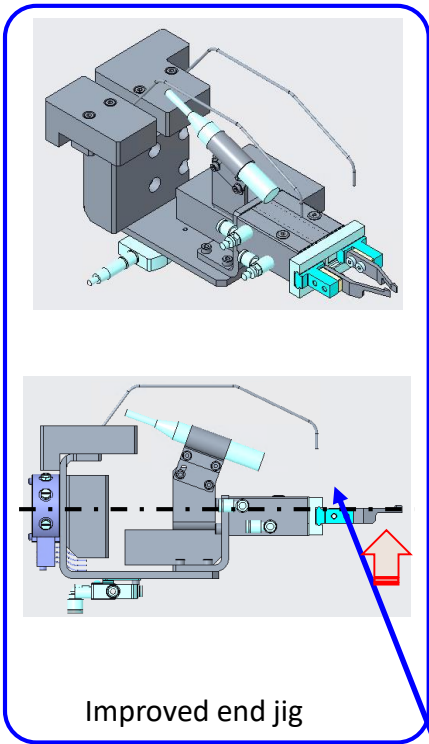
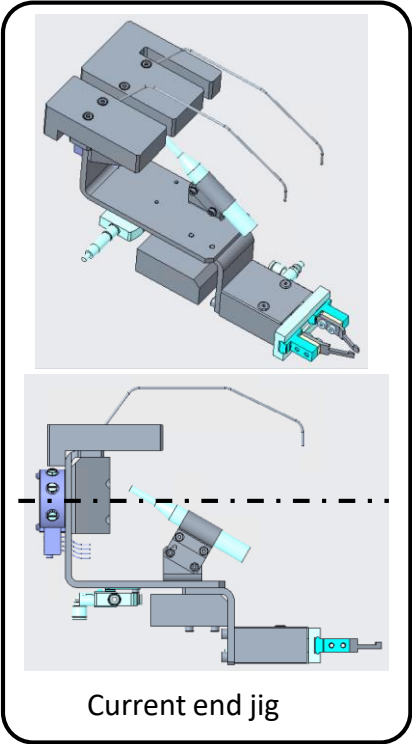
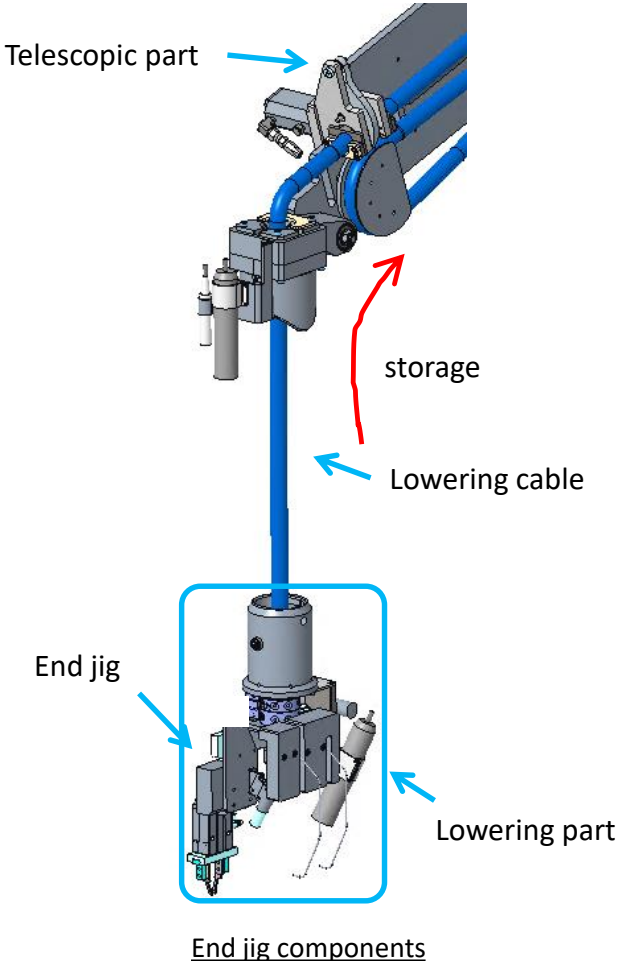
- There are two openings in the platform that provide access to the bottom of the pedestal with the telescopic device (openings 1 and 2 in the figure below).
- During work in October 2024, the tip jig was lowered through the front-most opening 1 in the pedestal (CRD rail side), and sampled fuel debris.
- The details of opening 2 on the far side in the pedestal have not been confirmed in previous Investigation.
- The second trial retrieval is planned from two viewpoint, that are understanding the internal condition of the pedestal and sampling from a different point than the first retrieval point.
 - ① Investigate the condition of opening 2 on the platform.
 - ② Fuel debris sampling is planned from opening 2. However, since the remaining grating on the platform is confirmed in previous Investigation, the status of opening 2 will be checked on the day of trial retrieval to determine whether access to the bottom of the pedestal is possible from opening 2.
 - ③ If the bottom of the pedestal cannot be accessed through opening 2, as with the last retrieval, the end jig will be lowered through opening 1 and fuel debris sampled from the bottom of the pedestal.



Additional Debris Sampling with the Telescopic Fuel Debris Trial Retrieval Device



- During the first fuel debris sampling, time was required to maneuver the end jig because the lowering part was not stable. So we are deliberating how to improve the maneuverability of the end jig before sampling additional fuel debris.



Concept diagram of end jig improvements

Stability has been improved by moving the location of the gripper to the center of rotation of the end jig

Work schedule

- In preparation to sample additional fuel debris with the telescopic device we will the process of studying improvements to conduct improvements to replace camera attached to the end of the telescopic device and to stabilize lowering of the end jig at the end of the device and mastery training. In the future, workers which is based on previous work results as we aim to begin taking more samples in the spring of 2025.
- Based on information ascertained through the mock-up tests at the Naraha mockup facility using of the work environment, the control program for the robotic arm was improved and combined once through tests completed.
- In light of the discovery of degrading components found during testing, similar components have been replaced and a full inspection of the robotic arm is underway. We are also deliberating how to share information with other sites in light of the telescopic device camera nonconformity.
- Based on additional fuel debris trial retrieval using the telescopic device and the test status of the robot arm, we will closely examine the details of the process so that we can safely and carefully proceed with the trial retrieval.

		FY2024				FY2025
		Q1	Q2	Q3	Q4	
Telescopic device	Deposit removal/ device manufacturing/ installation preparations, etc.	[Solid bar]			[Dashed box: Preparation for Second]	
	Debris sampling		[Solid bar: First]		[Dashed box: Second]	
Robotic arm	Inspection/maintenance, etc., and any additional development required based upon once-through tests/test results	[Solid bar]				[Dashed box]
	Installation preparation, etc./access route construction					[Dashed box]
	Internal investigation/debris sampling					[Dashed box]



: Past achievements



: Start and end dates are under scrutiny