

# Fukushima Daiichi Nuclear Power Station

## Progress in the marine organisms rearing test

### (Start of Rearing test preparations)

<Reference Material>  
September 13, 2022  
TEPCO Holdings

Fukushima Daiichi D&D Engineering Company

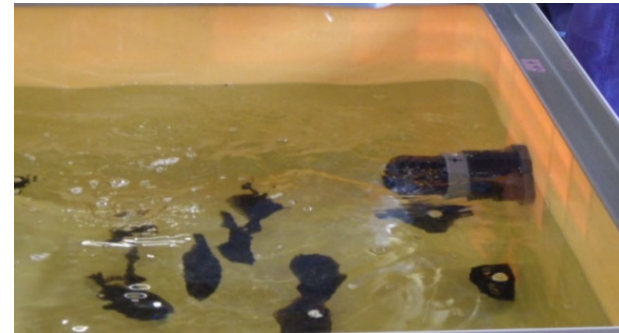
- In order to alleviate people's concerns and to cultivate peace of mind, we will rear marine organism in tanks of seawater containing ALPS treated water and compare them with organism reared in normal seawater and report the results carefully in an easy-to-understand manner.
  - Based on the results of many studies domestic and abroad on the behavior of tritium, data for this test will first be gathered for 6 months to show that "tritium is not concentrated in the living bodies and that the concentration of tritium in live bodies do not exceed that of the rearing environment" as demonstrated in past tests results.
  - We had started practicing rearing flounder in seawater found around the station in March to learn how to rear marine organisms and to verify equipment design, and have accumulated know-how in breeding. Having also experienced parasites-related deaths and deaths due to the difference of salinity in salt baths※ to eliminate parasites, we have started rearing practice in the mockup tanks in July with improvements, such as reviewing tank design considering the elimination and reduction of parasites and bathing the flounder in salt baths to get rid of the parasites when they first come into the facility.
  - During rearing practice conducted since July with mockup tanks, we made improvements to review tank design considering the elimination and reduction of parasites and to get rid of the parasites, and confirmed that the improvements are effective.
  - In light of this progress we will be moving on to the next phase of rearing test preparation (hereinafter referred to as, "Preparation stage ② (rearing test preparation)") on September 13.
  - We plan to begin rearing tests at the end of September but we also believe it will be effective to conduct rearing tests using concentrations of tritium that will actually be discharged into the sea. Therefore, we plan to conduct additional rearing tests using water from around the tunnel outlet which will have a concentration of tritium of around 30Bq/L.
- ※Salt bath: A way to eliminate parasites in fish by using the difference in salinity in seawater and osmotic pressure in the parasite's body.

<Announced as of September 12, 2022>

- Toward rearing test preparation, tanks for rearing test of the same design as the mockups and ancillary equipment have been newly installed in the controlled areas on station premises and new flounders to be used for the rearing test also have been put into the tanks. Therefore, we commenced to rear them for acclimating with seawater from around the power station today, September 13.



Overall view of rearing test tanks



Rearing test tanks after flounder brought in



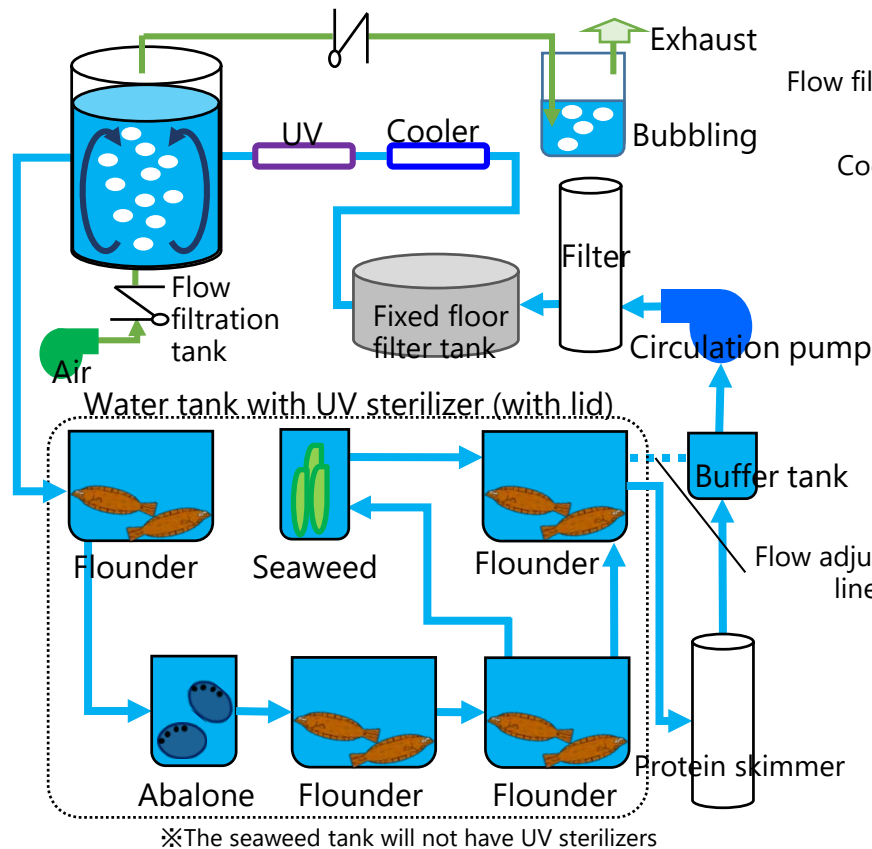
Flounder bringing in ①



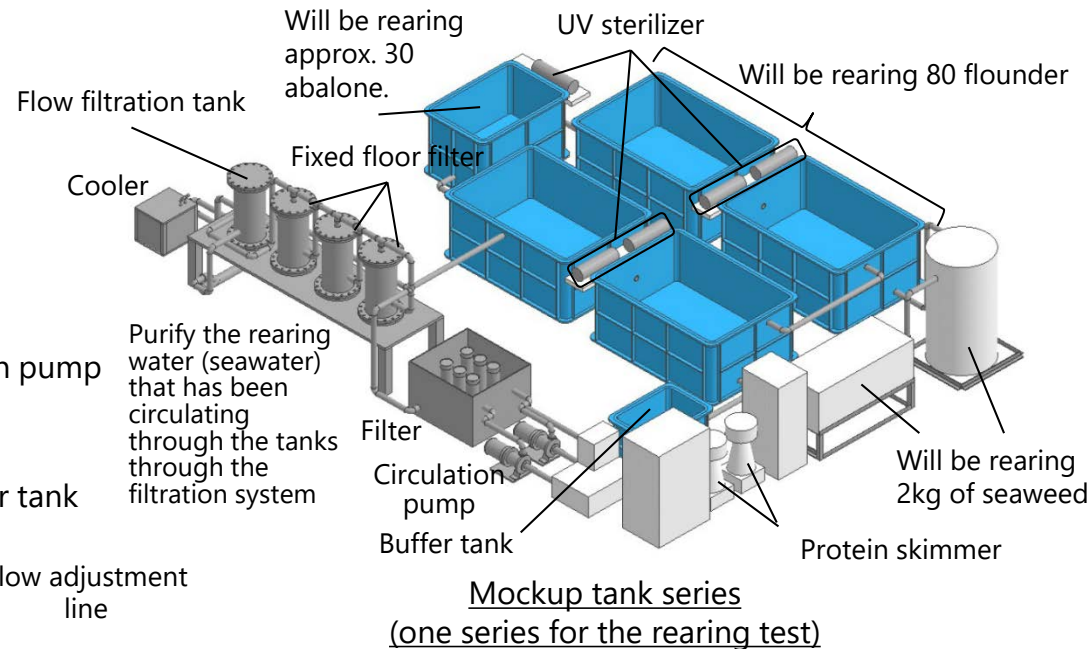
Flounder bringing in ②

# [Reference] Detailed design of rearing test tanks

- There have been no large issues during rearing practice using mockup tanks, which began in July, so the rearing test tanks will be designed just like the current mockup tanks.



**Mockup tank series**  
(one series for the rearing test)



### Large plastic tank

- Tank for flounder: Size 1.7m×1.2m×0.7m(Outer size), capacity : 1,000L
- Tank for abalone: Size 1.1m×0.8m×0.6m(Outer size), capacity : 400L
- Tank for seaweed:
- Box (placed horizontally): Size 1.2m×0.6m×0.6m(Outer size), capacity : 200L
- Round (placed vertically): Size (diameter) 0.5m×1.5m(Outer size), capacity : 200L

※The actual size and capacity of the tank may be different