Monitoring of seafoods related to the discharge of ALPS treated water

MAFF
Ministry of Agriculture, Forestry and Fisheries

Overview of Tritium Analysis ①

Purpose :

Implemented for fisher/consumer's confidence

Target :

Seafoods caught and produced on the Pacific side of the eastern Japan

Overview of Tritium Analysis ②

Target species : about 200 samples/year (FY2023)

Fish, Seaweeds, Shellfishes, Cephalopods, Crustacean

(based on the opinions of fishery-related organizations, etc)

① Common species : Olive flounder

(The most common fish species in coastal waters)

② Other species : a representative in local area

(a large volume of distribution/catch, etc)

Methods of Tritium Analysis

Analytical Methodology :

Measurement based on internationally recognized methods(Detection Limit: around 0.4 Bq/kg)

Flow Diagram :

Sampling → Extraction of moisture → Refined samples → Measurement

https://www.kankyo-hoshano.go.jp/wp-content/uploads/2020/12/No9.pdf

Results of Tritium Analysis

So far, JFA has published results for 244 samples taken from seafood. All the results were “Not Detectable”.

Tritium in Seafood (Tissue Free Water Tritium) (June 2022–August 2023)

https://www.jfa.maff.go.jp/e/inspection/index.html#a1

(Detection Limit: around 0.4 Bq/kg)

No.	Item	Name of sampling area on food labeling	Date of collection	Press release Date	Analysis site	(unit:Bq/kg) (Detection limit value)	
1	Willowy flounder	Offshore Fukushima	2022/6/29	2022/8/5	muscle	Not detectable	＜0.289
2	Olive flounder	Offshore Ibaraki	2022/6/20	2022/8/5	muscle	Not detectable	＜0.273
3	Olive flounder	Offshore Ibaraki	2022/7/5	2022/8/5	muscle	Not detectable	＜0.272
4	Olive flounder	Offshore Fukushima	2022/6/29	2022/8/12	muscle	Not detectable	＜0.229
241	Japanese amberjack	Offshore Fukushima	2023/8/21	2023/10/2	muscle	Not detectable	＜0.231
242	Olive flounder	Offshore Miyagi	2023/7/31	2023/10/2	muscle	Not detectable	＜0.225
243	Olive flounder	Offshore Miyagi	2023/7/31	2023/10/2	muscle	Not detectable	＜0.231
244	Olive flounder	Offshore Miyagi	2023/7/31	2023/10/2	muscle	Not detectable	＜0.215

Tritium analysis enhanced after discharge ①

- After discharge, JFA newly introduced a rapid analysis method for tritium intensive monitoring.
- This method can provide results the day or two after sampling. (Detection Limit: around 10 Bq/kg)

Purpose :

- Implemented for fisher/consumer's confidence
- provide information with fisher/consumers quickly

Results to be published on the Fisheries Agency website quickly

Tritium analysis enhanced after discharge ②

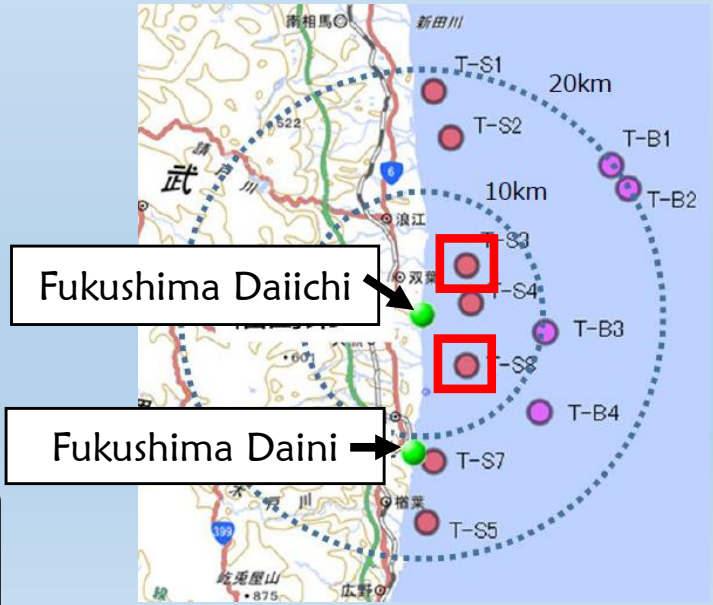
Analysis period and frequency :

- Intensive analysis will be conducted immediately after discharge for around a month
- Analysis will be conducted almost on a daily basis
- In October and November, the analysis will be conducted four times a week.

Sampling location :

Samples will be collected from two locations.

(North and south sides of Fukushima Daiichi Nuclear Power Plant)



Results of Tritium Analysis (Rapid method)

All the results were "Not Detectable" even after discharging the ALPS treated water.

https://www.jfa.maff.go.jp/e/inspection/index.html#rapid **Detection limit (<10 Bq/kg fresh)**

No.	Item	samplin g area	Place of collecti on	Fishing gear setting		Fishing gear collection		Press release Date	Analy sis site	(unit:Bq/kg) (Detection limit value)		Facility that conducted the analysis
				date	time	date	time					
61	Olive flounder	Offshore Fukushima	T-S3	2023/9/22	JST around 6:00	2023/9/23	JST around 5:00	2023/9/24	muscle	Not detectable	<9.03	Marine Ecology Research Institute
62	Olive flounder	Offshore Fukushima	T-S8	2023/9/22	JST around 5:15	2023/9/23	JST around 4:45	2023/9/24	muscle	Not detectable	<9.15	Marine Ecology Research Institute
63	Olive flounder	Offshore Fukushima	T-S3	2023/9/23	JST around 5:30	2023/9/24	JST around 5:30	2023/9/25	muscle	Not detectable	<8.57	Marine Ecology Research Institute
64	Olive flounder	Offshore Fukushima	T-S8	2023/9/23	JST around 5:15	2023/9/24	JST around 5:10	2023/9/25	muscle	Not detectable	<8.77	Marine Ecology Research Institute
65	Olive flounder	Offshore Fukushima	T-S3	2023/10/2	JST around 5:30	2023/10/3	JST around 4:50	2023/10/4	muscle	Not detectable	<8.27	Marine Ecology Research Institute
66	Olive flounder	Offshore Fukushima	T-S8	2023/10/2	JST around 5:30	2023/10/3	JST around 5:30	2023/10/4	muscle	Not detectable	<8.36	Marine Ecology Research Institute
67	Olive flounder	Offshore Fukushima	T-S3	2023/10/3	JST around 5:20	2023/10/4	JST around 5:00	2023/10/5	muscle	Not detectable	<8.93	Marine Ecology Research Institute
68	Olive flounder	Offshore Fukushima	T-S8	2023/10/3	JST around 6:00	2023/10/4	JST around 5:30	2023/10/5	muscle	Not detectable	<9.11	Marine Ecology Research Institute
69	Olive flounder	Offshore Fukushima	T-S3	2023/10/4	JST around 5:30	2023/10/5	JST around 5:00	2023/10/6	muscle	Not detectable	<7.42	Marine Ecology Research Institute
70	Olive flounder	Offshore Fukushima	T-S8	2023/10/4	JST around 6:00	2023/10/5	JST around 5:30	2023/10/6	muscle	Not detectable	<7.68	Marine Ecology Research Institute
71	Olive flounder	Offshore Fukushima	T-S3	2023/10/5	JST around 5:30	2023/10/6	JST around 3:00	2023/10/7	muscle	Not detectable	<8.28	Marine Ecology Research Institute
72	Olive flounder	Offshore Fukushima	T-S8	2023/10/5	JST around 6:00	2023/10/6	JST around 3:00	2023/10/7	muscle	Not detectable	<8.18	Marine Ecology Research Institute