

NRA presentation

- **D2 Environmental Monitoring**

IMAI Toshihiro

Nuclear Regulation Authority JAPAN

2nd IAEA Regulatory Review Mission on ALPS Treated Water Handling

18 March 2022

* This presentation is modified not to include the IAEA's current perspectives as the IAEA's review is still on-going.



Contents

1. NRA measures for the opinions of the IAEA TF regarding environmental monitoring
2. Comprehensive Radiation Monitoring Plan



1. NRA measures for the opinions of the IAEA TF regarding environmental monitoring

- About the requirements, please also refer to the presentation B(Major principles and safety objectives)(p.28,29,33).

- In the Comprehensive Radiation Monitoring Plan, the validity of the results of individual analyses is to be appropriately evaluated by each organization (Confirmation of reliability of monitoring data, analysis of factors when abnormal values are detected, etc.).

The CRMP said that NRA shall provide scientific and technical advice to the relevant ministries and other entities and consolidate and disseminate the results of the analysis and evaluation of measurement results as conducted by relevant ministries and other entities including TEPCO. In addition, the experts meeting on sea area monitoring related to ALPS treated water by MOE and NRA is being held to receive confirmation and advice from the experts. The results of monitoring by TEPCO are also reported and shared at these meetings, and TEPCO may be held to receive confirmation and advice as necessary.

In order to contribute to the discussions of the expert meeting, NRA, as the secretariat of the Comprehensive Monitoring Plan, confirms the validity of the monitoring conducted by TEPCO.



1. NRA measures for the opinions of the IAEA TF regarding environmental monitoring

▪ (Environmental Monitoring)

To be safe, in the environmental monitoring by MOE, 62 nuclides removed by ALPS and C-14 will be analyzed once per year. However, some nuclides, which are difficult to analyze and TEPCO has decided to evaluate based on calculated nuclide abundance ratios, are not included.

TEPCO applied for the approval to amend the implementation plan for Fukushima Daiichi Nuclear Power Station including revisions of the nuclides to be monitored and evaluated and NRA is currently reviewing the application, so the nuclides to be monitored in the environmental monitoring will be considered to be reviewed in the future, as necessary, including the addition of newly selected nuclides for the source terms.



1. NRA measures for the opinions of the IAEA TF regarding environmental monitoring

▪ (Independent environmental monitoring)

About confirmation of the reliability of TEPCO's monitoring results, at nearshore, as we mentioned at the NRA 2nd mission, a very large number of measuring points have been set up from a conservative standpoint, and the measuring points of the national and prefectural governments overlap with the sea areas measured by TEPCO. The comparison of monitoring results is described in 2. b. Furthermore, NRA also conducts monitoring in open sea where TEPCO does not conduct monitoring.



2. Comprehensive Radiation Monitoring Plan

2. Comprehensive Radiation Monitoring Plan



Sea area monitoring by relevant organizations ;

GOJ

✓ MOE/ NRA : Implementing monitoring of seawater and sea sediment

- (1) Nearshore sea area: approximately 3 km radius from FDNPP
- (2) Coastal sea area: within approximately 30 km from the coastline
- (3) Offshore sea area: within approximately 30 to 90 km from the coastline
- (4) Open sea: beyond approximately 90 km from the coastline
- (5) Tokyo Bay: a closed sea area where the inflow and accumulation of radioactive materials from rivers is of particular concern

✓ FAJ : implementing fishery products monitoring

Fukushima pref. : community-based monitoring

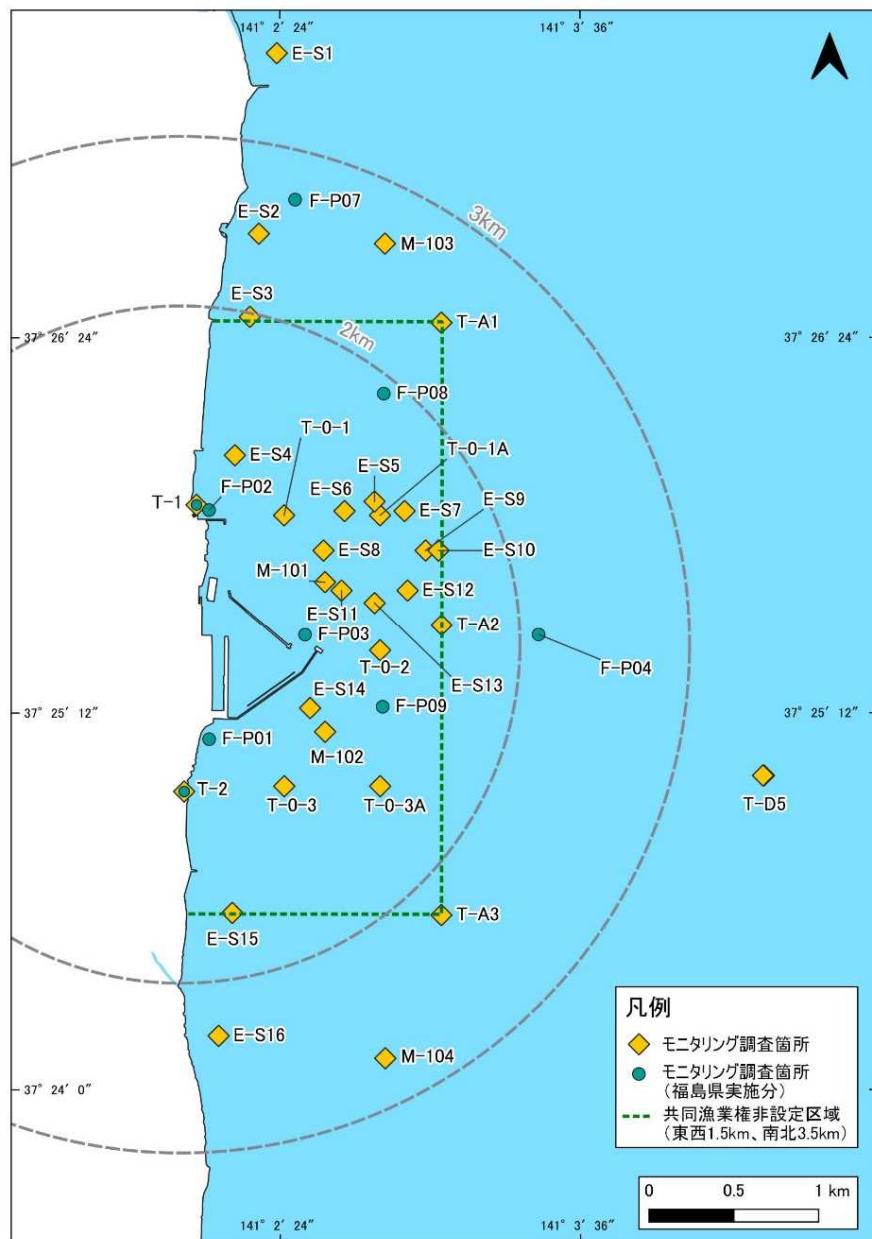
TEPCO : Implementing monitoring at nearshore sea area.
The largest contributor in terms of the number of samples and locations

2. Comprehensive Radiation Monitoring Plan

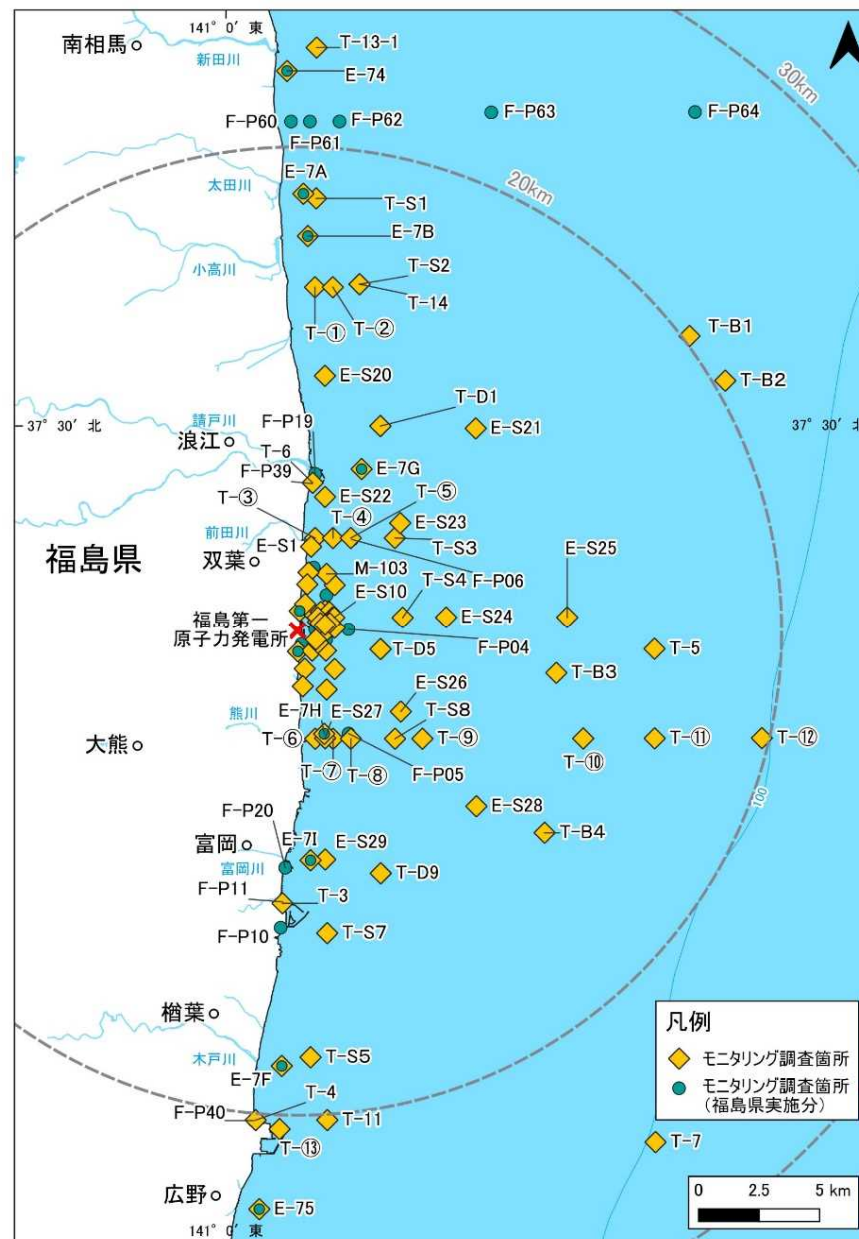


Sampling point

1~3 km from FDNPP



>30 km from FDNPP

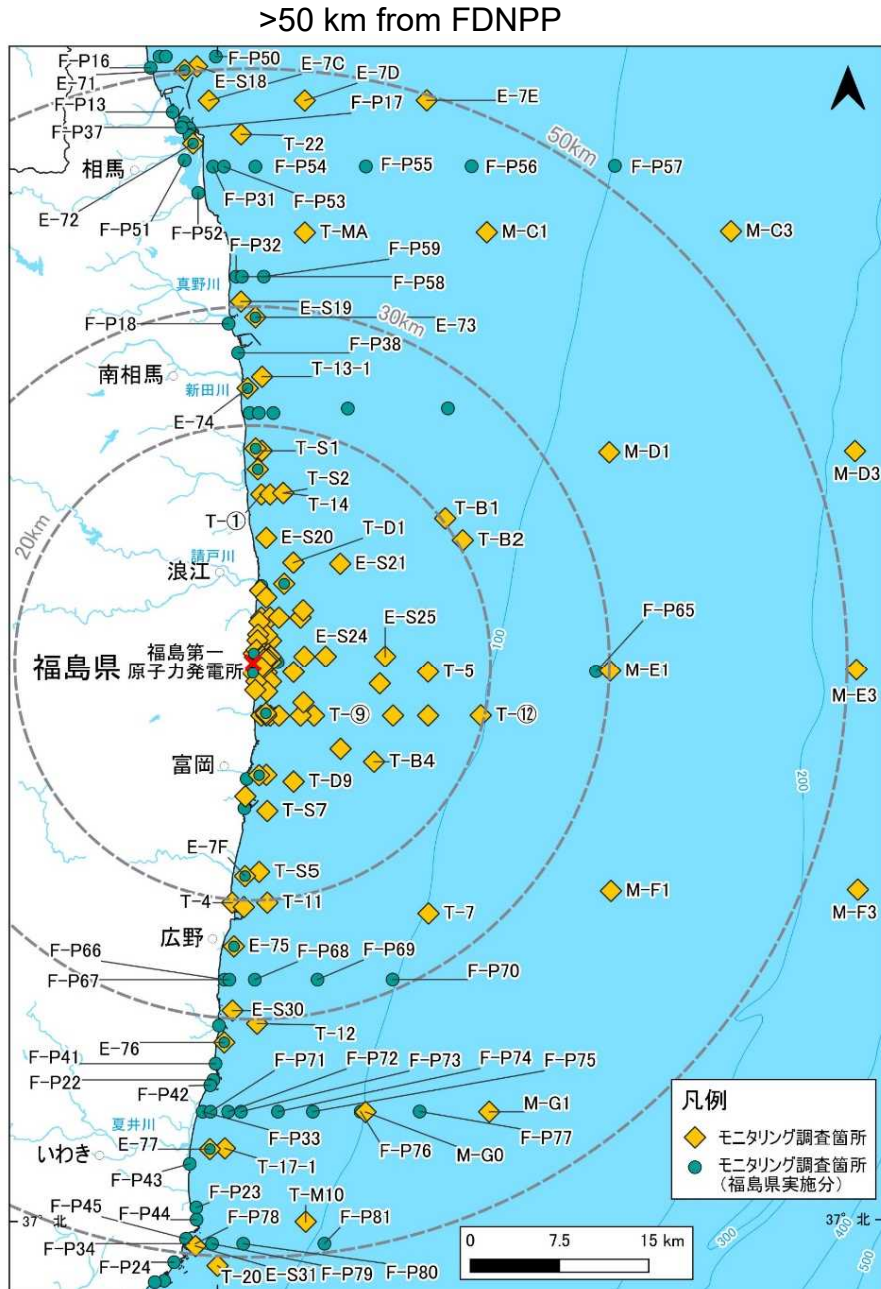


M-: NRA
 E-: MOE
 F-: Fukushima Prefecture
 T-: TEPCO

2. Comprehensive Radiation Monitoring Plan



Sampling point



M-: NRA
 E-: MOE
 F-: Fukushima Prefecture
 T-: TEPCO



Thank you for your attention.