

Japan's Plant Restart and Public Communication

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Restarted nuclear power plants in Japan

60 plants in Japan

--- Shutdown : 18

--- Under NRA Review : 19

--- **Restarted : 7 (+ 2)**

Sendai, unit 1, 2 (2015)

Ikata, unit 3 (2016)

Takahama, unit 3, 4 (mid 2017)

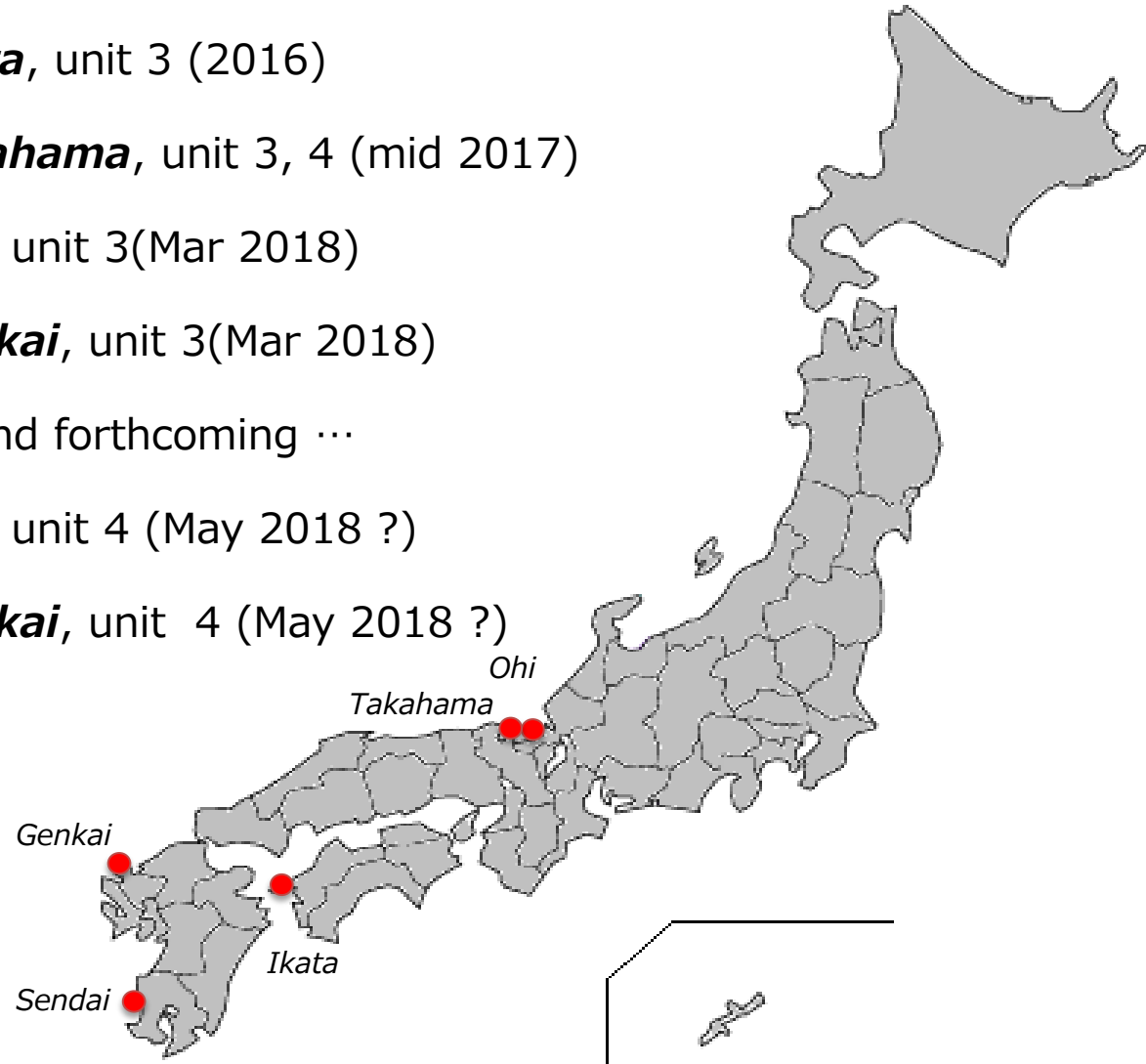
Ohi, unit 3 (Mar 2018)

Genkai, unit 3 (Mar 2018)

... and forthcoming ...

Ohi, unit 4 (May 2018 ?)

Genkai, unit 4 (May 2018 ?)



1. NRA safety regulations

- NRA strictly reviews each restart plan drafted by operating companies.
- Four steps... 1) safety assessment, 2) construction plan, 3) operational safety program, 4) final check.

2. Evacuation plans

- Local governments establish evacuation plans, and Japanese government (the PM and his cabinet members) authorizes the plans.

3. Approval of the governor and the mayor

- not a legal requirement

Evacuation plan (Genkai)



5km (PAZ)
8,000 residents

30km (UPZ)
25,000 residents

Sheltered inside
buildings

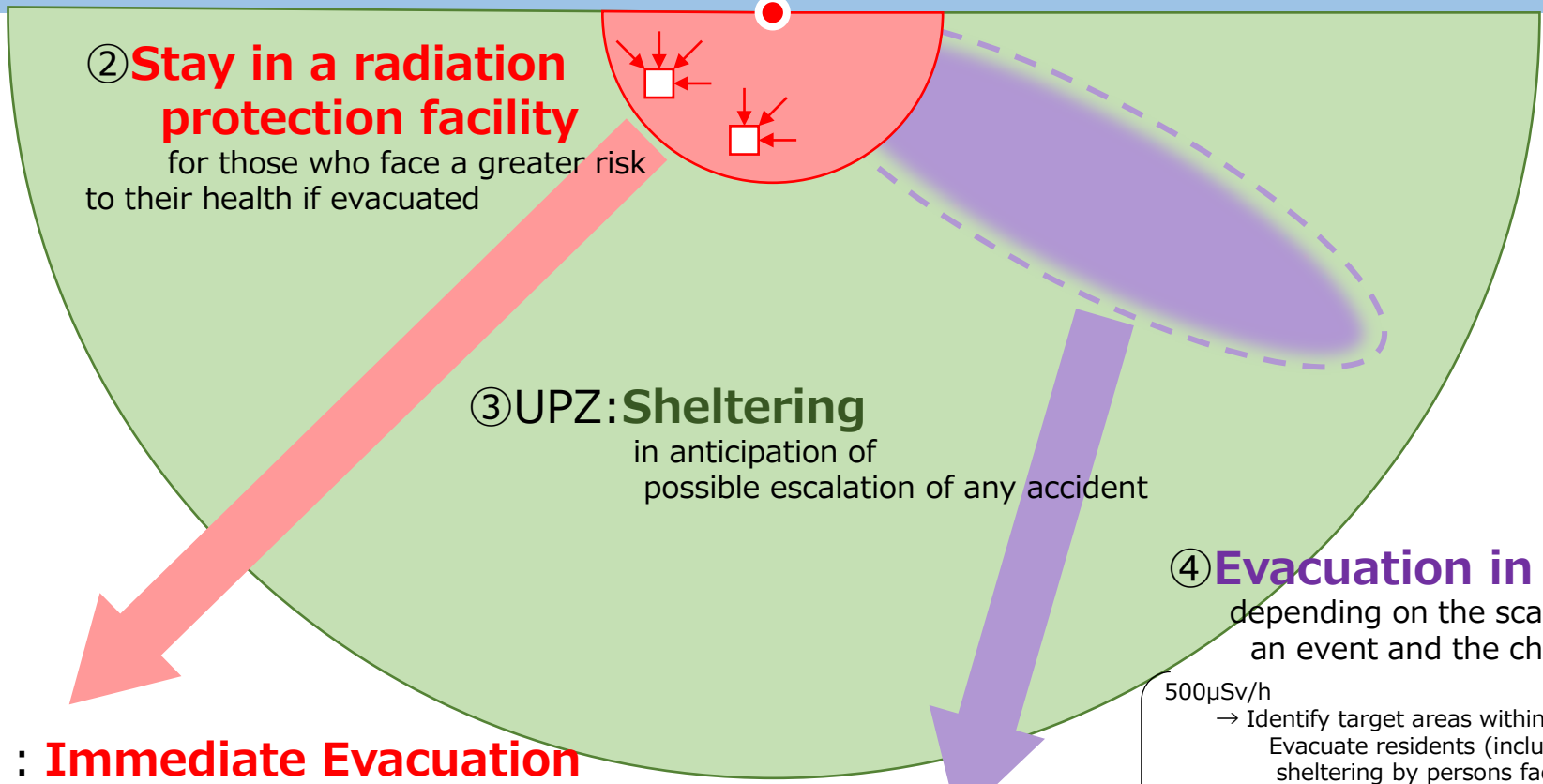
Evacuate by bus

UPZ

Urgent Protective action planning Zone
Roughly within 5- to 30-km radius

PAZ

Precautionary Action Zone
Roughly within a 5 km radius



② **Stay in a radiation protection facility**
for those who face a greater risk to their health if evacuated

③ **UPZ: Sheltering**
in anticipation of possible escalation of any accident

④ **Evacuation in stages**
depending on the scale of an event and the change over time

① **PAZ : Immediate Evacuation**
in response to any accidents that may rapidly escalate
(In advance, evacuation sites are secured)

In advance, evacuation sites are secured

- 500 μ Sv/h
→ Identify target areas within a few hours, Evacuate residents (including temporary sheltering by persons facing difficulty in moving places)
- 20 μ Sv/h
→ Identify target areas in about one day, Restrict intake of products from target areas, Relocate residents of target areas in about one week

Timeline for *Genkai* Plant

1. NRA safety regulations

Jul 2015 Safety assessment started

Jan 2017 Safety assessment approved

Aug 2017 Construction plan approved
Operational safety program approved

2. Evacuation plan

Plan drafted

Dec 2016 Plan authorized

Mar 2017 Approved by mayor

Apr 2017 Approved by governor

Unit 3: Mar 2018 Unit 4: May 2018 ? Restart

Agree 28-20%

Disagree 67-55%

(Recent polls by newspapers)

Four approaches:

- (1) Grass-roots public hearings/PR efforts**
- (2) Web-based information (NEW)**
- (3) International workshop at local government offices (NEW)**
- (4) Platform for community involvement (TBD)**

Symposia and meetings

272 areas

15,348 attendants

Current topic

Long-term energy policy



Invite students (elementary ... high school)

In addition to PDF documents,
simple articles and
illustrations.

(Optimized for smartphones,
and easy to share on SNS)

Accessed 90,000 PV
/ month

水に溶け出したとしても、放射性物質がベントナイト内に閉じ込められることとなります。

このガラス固化体、オーバーバック、ベントナイトの3つを合わせて、「人工バリア」と呼びます。人工バリアで覆われた高レベル放射性廃棄物は、地下深くの岩盤に埋設されます。地下深くの岩盤の中では、地下水がほとんど動かないため、放射性物質を含む地下水がベントナイトの外側、つまり岩盤中に出てきたとしても、極めて遅い速度で動くこととなります。さらに、岩盤は放射性物質を吸着するため、その移動速度をより遅くします。こうした機能を持つ岩盤のことを「天然バリア」と呼びます。

こうした「人工バリア」と「天然バリア」という多重のバリアによって、地下深部に埋設した高レベル放射性廃棄物が地上の生活環境に影響を及ぼすことを防ぎます。

<高レベル放射性廃棄物を閉じ込める仕組み>



大きい画像で見る

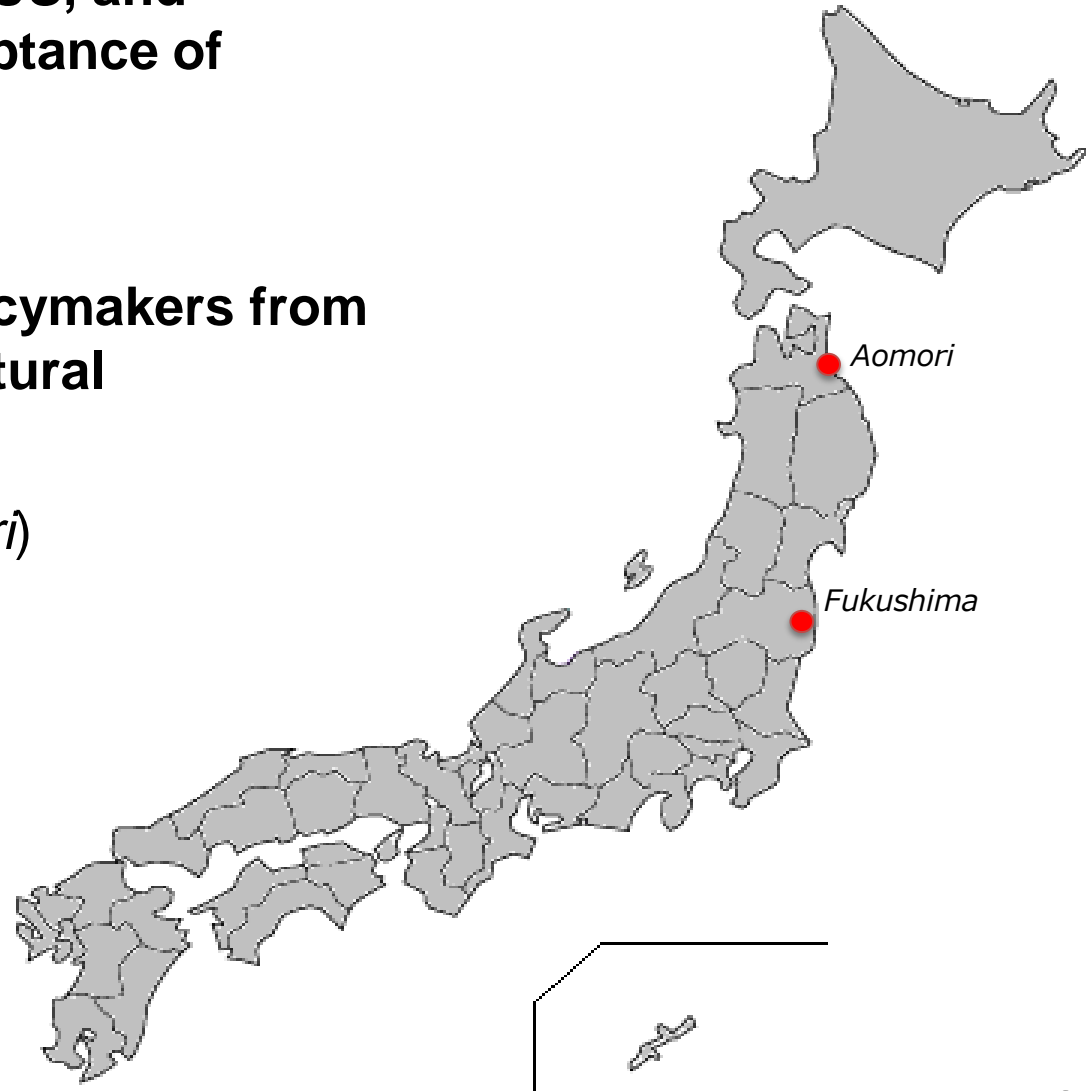
(3) International workshops at local government offices

Invited opinion leaders from UK, US, and Finland, and discuss public acceptance of nuclear power.

Hold workshops with energy policymakers from Asian countries, and local prefectural governments.

(Feb 2018 in *Fukushima* and *Aomori*)

- Sponsored by ERIA, the Economic Research Institute for ASEAN and East Asia
- Organized by IEEJ, the Institute of Energy Economics, Japan



(4) Platform for community involvement

- A platform, not only for nuclear disasters, but also for common disasters, such as earthquakes and tsunamis.
- It may be effective to include hospitals, emergency response organizations, scientists, and other fields in the dialogue.

