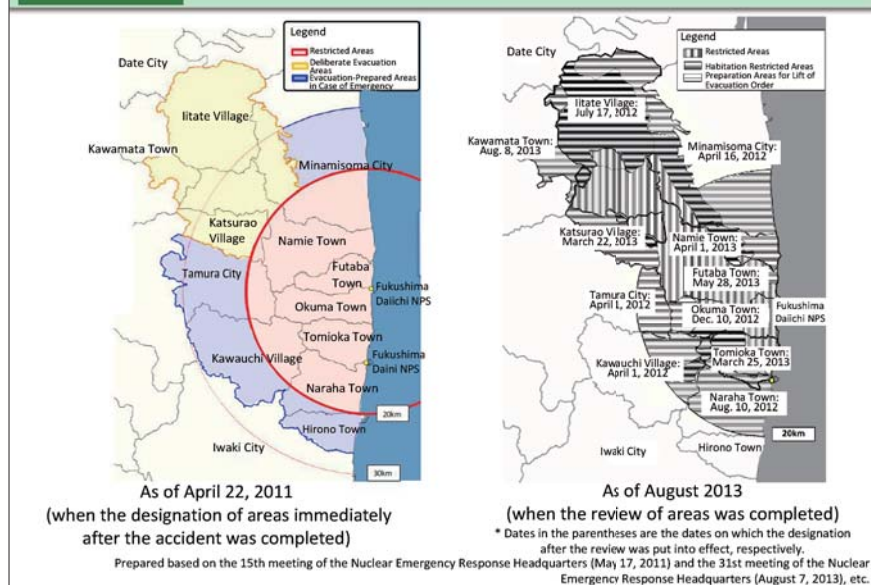


## Designation of Areas under Evacuation Orders



Based on Article 15, paragraph (2) of the Act on Special Measures Concerning Nuclear Emergency Preparedness, a Declaration of a Nuclear Emergency Situation was issued at 19:03 on March 11, 2011. At 18:25 on the following day, evacuation orders were issued for the 20-km zone of TEPCO's Fukushima Daiichi NPS.

On April 11, 2011, areas around the 20-km zone where annual cumulative doses would be highly likely to exceed 20 mSv after the accident were designated as Deliberate Evacuation Areas, taking into account the standard limits for radiological protection in emergency exposure situations, and areas within 20 km to 30 km were designated as Evacuation-Prepared Areas in Case of Emergency. Additionally on April 21, 2011, considering future risks due to the accident, areas within 20 km from the NPS were designated as Restricted Areas and access was prohibited in principle.

In June 2011 onward, spots where decontamination work would not be easy and annual cumulative doses would be highly likely to exceed 20 mSv were designated as specific spots recommended for evacuation, based on the results of the environmental monitoring by the national government and Fukushima Prefecture.

On December 16, 2011, the reactors reached a state of cold shutdown and it was confirmed that the discharge of radioactive materials was under control. Accordingly, on December 26, the designation of Restricted Areas was removed and it was proposed to review Areas under Evacuation Orders and to newly designate Restricted Areas, Habitation Restricted Areas and Preparation Areas for Lifting of Evacuation Orders. Upon reviewing Areas under Evacuation Orders, four problems common to all subjected areas were cited as problems to be addressed: (i) need to ensure safety and security of residents; (ii) need for decontamination and due consideration of children's radiation exposure; (iii) reconstruction of infrastructure and job creation; and (iv) compensation.

As requirements for lifting evaluation orders, the following were set: (i) it is certain that annual cumulative doses estimated based on ambient dose rates will become 20 mSv or lower; (ii) infrastructure (such as electricity, gas, water and sewer services, major transportation systems, and communication networks) and living-related services (such as medical services, nursing care, and postal services) indispensable for daily lives have been almost restored and decontamination work has progressed sufficiently centered on children's living environments; and (iii) consultations have been held sufficiently among the prefecture, municipalities and residents.

(Related to p.173 of Vol. 1, "ICRP Recommendations and Responses of the Japanese Government")

Included in this reference material on February 28, 2018

Updated on March 31, 2020

April 22, 2011, onward Area designation immediately after accident	April 2012, onward After confirming cold shutdown of the reactors
<b>Restricted Areas<sup>(*)1</sup></b> Areas within 20 km in radius from the Nuclear Power Station (NPS); The relevant areas were designated as Areas under Evacuation Orders on March 12, 2011.	<b>Preparation Areas for Lift of Evacuation Order</b> Areas where it is confirmed that annual cumulative doses will surely become 20 mSv or lower <sup>(*)2</sup>
<b>Deliberate Evacuation Areas</b> Areas 20 km or farther from the NPS where cumulative doses would be highly likely to exceed 20 mSv within one year after the accident	<b>Habitation Restricted Areas</b> Areas where annual cumulative doses would be highly likely to exceed 20 mSv <sup>(*)2</sup>
<b>Evacuation-Prepared Areas in Case of Emergency</b> Areas within 20 km to 30 km in radius from the NPS other than Deliberate Evacuation Areas; The relevant areas were designated as In-house Evacuation Areas on March 12, 2011.	<b>Restricted Areas<sup>(*)3</sup></b> Areas where annual cumulative doses exceed 50 mSv <sup>(*)2</sup> at present and would be highly likely to remain above 20 mSv <sup>(*)2</sup> even after 6 years from the accident

Areas under Evacuation Orders:

Areas for which evacuation orders were issued based on Article 15, paragraph (3) of the Act on Special Measures Concerning Nuclear Emergency Preparedness; Areas under Evacuation Orders and the 20-km zone of the Nuclear Power Station were rearranged and were newly designated as Preparation Areas for Lift of Evacuation Order, Habitation Restricted Areas or Restricted Areas.

(\*)1 Areas where access is restricted pursuant to the provisions of Article 63, paragraph (1) of the Disaster Countermeasures Basic Act as applied pursuant to Article 28, paragraph (2) of the Act on Special Measures Concerning Nuclear Emergency Preparedness, following the deemed replacement of terms

(\*)2 Based on the dose data obtained through the 4th airborne monitoring survey after correction as of March 31, 2012

(\*)3 The term "Areas where returning is difficult" was formerly used instead of "Restricted Areas" as a literal translation from Japanese.

Prepared based on the "Basic Idea on Review of the Restricted Areas and Areas under Evacuation Orders in Response to the Completion of Step 2 and Matters to be Discussed" (December 26, 2011; Nuclear Emergency Response Headquarters)

Immediately after the accident at Tokyo Electric Power Company (TEPCO)'s Fukushima Daiichi NPS on March 11, 2011, the Nuclear Emergency Response Headquarters issued evacuation orders in order to avoid risks to residents' lives and designated the areas within 20 km from the NPS as Areas under Evacuation Orders on March 12.

On April 22, for fear of any risks that residents might be exposed to a large amount of radiation at one time as a result of worsening of the situation, the Headquarters designated the relevant areas as Restricted Areas to prohibit access in principle, and also designated areas 20 km or farther from the NPS where cumulative doses would be highly likely to exceed 20 mSv within one year after the accident as Deliberate Evacuation Areas.

On December 16, the reactors reached a state of cold shutdown and the Nuclear Emergency Response Headquarters confirmed that the chaotic situation after the accident ended. Accordingly, on December 26, the basic idea on review of Restricted Areas and Areas under Evacuation Orders was presented. The Headquarters made preparations for the review while closely consulting with the prefecture, municipalities and residents and making adjustments, and at the same time endeavored to address problems common to all subjected areas.

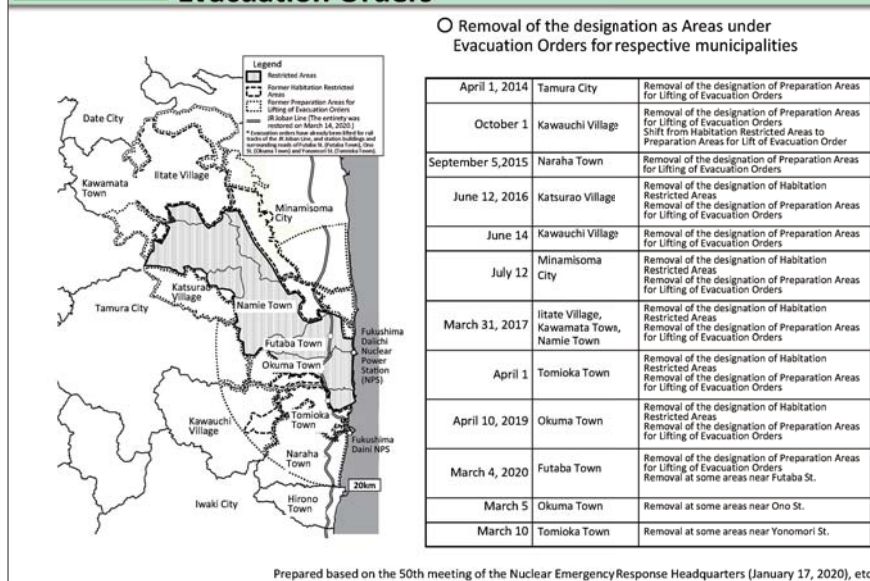
On March 30, 2012, the Nuclear Emergency Response Headquarters reviewed Restricted Areas and Areas under Evacuation Orders in accordance with radiation doses and problems unique to respective areas. By August 2013, the designation of Restricted Areas and Specific Spots Recommended for Evacuation was completely removed, and Areas under Evacuation Orders were newly designated as Preparation Areas for Lifting of Evacuation Orders, Habitation Restricted Areas, or Restricted Areas.

(Related to p.173 of Vol. 1, "ICRP Recommendations and Responses of the Japanese Government")

Included in this reference material on February 28, 2018

Updated on March 31, 2020

# Removal of the Designation of Areas under Evacuation Orders



At the joint meeting of the Reconstruction Promotion Council and the Nuclear Emergency Response Headquarters held on March 7, 2013, it was pointed out that "a certain view should be indicated within the year" regarding the lift of evacuation orders. Accordingly, procedures to be followed for lifting evacuation orders were presented based on the discussions over the Cabinet decision on December 20, 2013, titled "For Accelerating the Reconstruction of Fukushima from the Nuclear Disaster." In order to ease returning residents' anxiety over health effects of radiation, measures are being taken to reduce radiation exposure and eliminate health concerns (risk communication program). These measures include deployment of counselors, development of counselor support centers, ascertaining and management of personal doses, and radiation monitoring.

In the meantime, evacuation orders were lifted by March 2020 for all areas designated as Preparation Areas for Lifting of Evacuation Orders or Habitation Restricted Areas, except for Restricted Areas.

Regarding Restricted Areas, evacuation orders were lifted for the first time for some areas in Futaba Town, Okuma Town and Tomioka Town within the Specified Reconstruction and Revitalization Base Areas designated as Restricted Areas, upon the reopening of the entirety of the JR Joban Line. Kawauchi Village and Hirano Town had recommended evacuation for areas other than Areas under Evacuation Orders designated by the national government, based on their independent determinations, but lifted the evacuation recommendation on January 31, 2012, and on March 31, 2012, respectively.

The latest information, the current status of evacuees and the details of the areas under evacuation orders in 12 municipalities are posted on the portal site, "Fukushima Revitalization Station".

"Fukushima Revitalization Station"

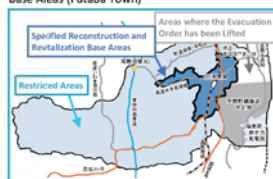
<https://www.pref.fukushima.lg.jp/site/portal-english/>

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Updated on March 31, 2020

[Approval of Plans for Specified Reconstruction and Revitalization Base Areas and Targeted Timing for Lifting Evacuation Orders]

Municipality name	Approval date	Targeted timing for lifting evaluation orders
Futaba Town	Sep. 15, 2017	Around spring of 2022
Okuma Town	Nov. 10, 2017	By around spring of 2022
Namie Town	Dec. 22, 2017	March 2023
Tomioka Town	Mar. 9, 2018	Around spring of 2023
Iitate Village	Apr. 20, 2018	Around spring of 2023
Katsurao Village	May 11, 2018	By around spring of 2022

Example of a Specified Reconstruction and Revitalization Base Area (Futaba Town)



"Specified Reconstruction and Revitalization Base Area Reconstruction and Revitalization Plan" by the Reconstruction Agency

<https://www.reconstruction.go.jp/topics/main-cat1/sub-cat1-4/saiseikyoten/20170913162153.html> (in Japanese)

#### "Radiological Protection Measures at Specified Reconstruction and Revitalization Base Areas"

(Dec. 12, 2018, by the Cabinet Office's Support Team for Residents Affected by Nuclear Incidents, the Reconstruction Agency, the Ministry of the Environment, and the Secretariat of the Nuclear Regulation Authority)

As Specified Reconstruction and Revitalization Base Areas are areas where entries have been strictly restricted as Restricted Areas, required measures are to reduce residents' exposure doses and meticulously respond to their worries over radiation.

Under this concept, radiological protection measures should be taken in two stages, the first stage to make preparations for returning and rebuild communities ahead of the lifting of the evacuation order and the second stage to achieve the lifting of the evacuation order for further accelerating related initiatives.

Prepared based on the "Radiological Protection Measures at Specified Reconstruction and Revitalization Base Areas" (2018) by the Cabinet Office's Support Team for Residents Affected by Nuclear Incidents, the Reconstruction Agency, the Ministry of the Environment, and the Secretariat of the Nuclear Regulation Authority and the "Toward the Lifting of Evacuation Orders and Returning and Inhabitation of Residents for Specified Reconstruction and Revitalization Base Areas" (2018) by the Nuclear Emergency Response Headquarters

As radiation doses have decreased in some Restricted Areas, the national government published its policy in August 2016 to develop "reconstruction bases with the aim of lifting evacuation orders and permitting inhabitation in such areas within around five years in light of the status of decreases in radiation doses". In response, the Act on Special Measures for the Reconstruction and Revitalization of Fukushima was amended in May 2017 and the system for Specified Reconstruction and Revitalization Base Areas was established thereby. Plans for reconstruction and revitalization that all municipalities (Futaba Town, Okuma Town, Namie Town, Tomioka Town, Iitate Village, and Katsurao Village) had formulated for Specified Reconstruction and Revitalization Base Areas were approved by May 2018 and their development has been promoted.

In December 2018, as moves toward the lifting of evacuation orders for these municipalities had become active, the national government presented its policy to take radiological protection measures for Specified Reconstruction and Revitalization Base Areas in two stages, a stage to prepare for returning and a stage to achieve the lifting of evacuation orders, with the aim of further accelerating efforts for lifting evacuation orders.

In a stage to prepare for returning, the national government will not only ensure steady management of individuals' doses and secure a consultation system, but also minutely obtain doses and other information and provide estimated exposure doses based on detailed dose maps and representative behavior patterns or otherwise take multi-layered measures in cooperation with local governments.

In a stage to achieve the lifting of evacuation orders, as residents spend more time and move around more widely than in the preparatory stage, the national government will take measures to reduce residents' exposure doses based on dose data and individuals' living conditions and risk communication measures to meticulously respond to residents' worries and anxieties, comprehensively and in a multi-layered manner in line with each local government's wishes, in addition to steadily managing individuals' doses and securing a consultation system.

Included in this reference material on March 31, 2020



- Works to demolish houses and other buildings and decontamination work have commenced in all of the six towns and villages (Futaba Town, Okuma Town, Namie Town, Tomioka Town, Iitate Village and Katsurao Village). Works have been completed for station squares, kindergartens, gymnasiums and other public facilities. Efforts to restore the environment are thus steadily progressing.
- Ahead of the full reopening of the Japan Railway (JR) Joban Line on March 14, 2020, evacuation orders were lifted partially for some of the Specified Reconstruction and Revitalization Base Areas (on March 4 for Futaba Town, on March 5 for Okuma Town, and on March 10 for Tomioka Town) in advance of other areas.
- In Specified Reconstruction and Revitalization Base Areas, **decontamination has been completed for over 70%, and the demolition of houses and other buildings has been completed for approximately 79% out of the total number of applications** (as of the end of December 2020).

The square  
in front of  
Yonomori  
Station, etc.  
(Tomioka  
Town)



Before



Under decontamination



After

Futaba  
Town  
Gymnasium  
(Futaba  
Town)



Before



Under demolition



After

Prepared by the Ministry of the Environment

When the Prime Minister approves Reconstruction and Revitalization Plans of Specified Reconstruction and Revitalization Base Areas in Restricted Areas made by the relevant municipalities, the demolition of houses and other buildings, decontamination work, development of infrastructure, etc. are conducted in an integrated manner in those areas.

The Ministry of the Environment (MOE) is now carrying out the demolition of houses and other buildings and decontamination work in all Specified Reconstruction and Revitalization Base Areas of Futaba Town, Okuma Town, Namie Town, Tomioka Town, Iitate Village and Katsurao Village based on their plans. Ahead of the full reopening of the JR Joban Line in March 2020, evacuation orders were lifted for some parts around Yonomori Station, Ono Station and Futaba Station among Specified Reconstruction and Revitalization Base Areas in advance of other areas.

At present, toward the lifting of evacuation orders for the entirety of respective areas, the demolition of houses and other buildings and decontamination work are being intensively promoted. As of the end of December 2020, decontamination has been completed for over 70% and the demolition of houses and other buildings has been completed for approximately 79% out of the total number of applications. Specified waste from demolished houses and other buildings is to be buried after volume reduction for disposal at the controlled disposal site managed by the Futaba Regional Municipal Association (Clean Center Futaba), and MOE, the Association and Fukushima Prefectural Government concluded the basic agreement thereon in August 2019.

Included in this reference material on March 31, 2021

## Fukushima Innovation Coast Framework

- The framework aiming to **create new industries** in Hamadori District for the purpose of industrial revitalization of the district
- The "Fukushima Innovation Coast Promotion Organization" (since July 2017; President: Saito Tamotsu (Senior Advisor, IHI)), the national government, Fukushima Prefecture, and municipalities are cooperatively carrying out activities for such purposes as forming industrial clusters, providing education and fostering human resources, increasing the number of visitors, and providing information, while placing the focus on **six priority fields**.

### Six priority fields

#### Decommissioning

Technology development calling for wisdom domestically and internationally

Naraha Center for Remote Control  
Technology Development where demonstration tests necessary for decommissioning work, etc., are being conducted



#### Robots and drones

Accumulation of the robot industry centered on the Fukushima Robot Testing Field

Fukushima Robot Testing Field that simulates an environment for using field robots on land, at sea and in the air



#### Medical field

Cultivation of companies' sales channels through support for technology development

Fukushima Medical Device Development Support Centre



#### Energy, environment and recycling-related field

Establishment of cutting-edge renewable energy recycling technology

Promotion of the introduction of renewable energy  
Matsuo no Sato Wind Farm in Minamisono



#### Agriculture, forestry and fisheries industry

Revitalization of the agriculture, forestry and fisheries industry by the use of ICT and robot technology

Creation of a new agricultural model by the use of ICT  
Demonstration of driverless tractors



#### Aerospace

Demonstration of a flying vehicle and invitation of related companies

Aerospace Fairs Fukushima



Fukushima Innovation Coast Promotion Organization, national government, Fukushima Prefecture, municipalities, etc.

#### Industrial clusters

- Top-level activities to invite companies and support matching
- Support for construction of plants and development of new products

#### Education and human resources development

- Holding of classes to foster human resources in collaboration with educational institutions

#### Increase of the number of visitors

- Creation of new attractions jointly with local communities

#### Information provision

- Opening of the Great East Japan Earthquake and Nuclear Disaster Memorial Museum and holding of symposiums



Regarding the Fukushima Innovation Coast Framework, deliberations were commenced with the aim of having people around the world witness the spectacular recovery of the Hamadori District at the time of the Tokyo Olympic and Paralympic Games in 2020. The Fukushima Innovation Coast Framework Workshop compiled the Framework in June 2014, aiming to build a new industrial base in the Hamadori District in order to recover the industry and employment in the district that was severely affected by the earthquake and the nuclear disaster.

For achieving the framework, efforts have been made to develop bases for R&D on decommissioning, research and demonstration on robot technology, and information provision (archives base), to materialize projects in such fields as environment and recycling, energy including hydrogen and renewable energy, the agriculture, forestry and fisheries industry, medical services, and aerospace, and to form industrial clusters, foster human resources and develop living environment, etc.

In December 2019, the Reconstruction Agency, the Ministry of Economy, Trade and Industry and Fukushima Prefecture jointly compiled the "Blueprint of Industrial Development Placing the Fukushima Innovation Coast Framework at the Core," which shows envisaged independent and sustainable industrial development in the Hamadori District and concrete measures therefor also in consideration of the future after the reconstruction and revitalization period. Based on the Blueprint, Fukushima Prefecture formulated a draft revision of the Intensive Promotion Plan based on the Act on Special Measures for the Reconstruction and Revitalization of Fukushima in March 2020, and the revised plan was approved by the Prime Minister on May 1, 2020.

Additionally, Fukushima Prefecture established a general incorporated foundation, "Fukushima Innovation Coast Promotion Organization," in July 2017 as the central organization in promoting the Fukushima Innovation Coast Framework towards its realization. The Organization has strengthened its system sequentially since April 2018 and became a public interest incorporated foundation on January 1, 2019. In June 2020, the Act on Special Measures for the Reconstruction and Revitalization of Fukushima was amended, and a system was newly introduced to make it possible to dispatch national public employees to the Organization while maintaining their status as national public employees.

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Updated on March 31, 2021

# Traffic on Major Roads in Restricted Areas



- **Joban Expressway:** The entirety was restored in March 2015.  
Source: [https://www.e-nexco.co.jp/en/pressroom/head\\_office/2014/1225/00006647.html](https://www.e-nexco.co.jp/en/pressroom/head_office/2014/1225/00006647.html)
- **JR Joban Line:** The entirety was restored in March 2020.  
Source: [https://www.jreast.co.jp/press/2019/20200117\\_ho01.pdf](https://www.jreast.co.jp/press/2019/20200117_ho01.pdf) (in Japanese)
- **National roads and prefectural roads:** Transit without carrying and presenting a pass came to be permitted for National Road 6 from September 2014, for National Road 114 from September 2017, and for Prefectural Road 35 from September 2019.

Exposure doses of drivers passing through				
Dose survey period	November 2018 to January 2019	August 2017	November to December 2019	
Section	Japan Expressway: between Hirano IC and Minamimura IC	National Road 114: between the border of Sawamata Town and Namie IC	National Road 6: in Restricted Areas	Prefectural Road 35: in Restricted Areas
Exposure dose while passing through ( $\mu\text{Sv}$ )	Automobiles	0.28	1.01	0.39
	Motorcycles	0.34	-	0.49

Reference) Exposure dose during a round flight between Tokyo and New York: approx. 80 to 110  $\mu\text{Sv}$

Source: Prepared by the Support Team for Residents Affected by Nuclear Incidents based on the "Results of Radiation Dose Surveys in Restricted Areas along National Roads 114, 399 and 459 and Prefectural Roads 49 and 34" (September 15, 2017), the "Results of Radiation Dose Surveys in Restricted Areas along National Roads 6 and 114 and Prefectural Roads 34, 35, 36, 253 and 256" (January 30, 2020), and NEXCO East's website (<https://jobando.jp/hibakusenryo/hibakuryo.html>) (in Japanese)

In Restricted Areas, transit had been restricted except for temporary entry of residents and transit based on the Special Transit Permission System.

As National Road 6 is a key major road for reconstruction and recovery of Fukushima Prefecture, after completion of decontamination and road repair work, special transit without carrying and presenting a pass came to be permitted for National Road 6 and Prefectural Road 36 on September 15, 2014, as a result of consultations with the relevant municipalities.

The Special Transit Permission System has also been applied to National Road 114 and Prefectural Road 35 based on consultations with the relevant local governments and organizations. From March 2020, motorcycles are also permitted to use some routes, such as National Road 6 and Prefectural Road 35. The most recent status of the application of the Special Transit Permission System and the results of dose surveys under the application of the system are published in the form of a notice of the Support Team for Residents Affected by Nuclear Incidents, Cabinet Office (<https://www.meti.go.jp/earthquake/nuclear/kinkyu.html>, in Japanese).

Included in this reference material on February 28, 2018

Updated on March 31, 2020