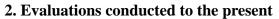
1. The anticipated Tokai Earthquake

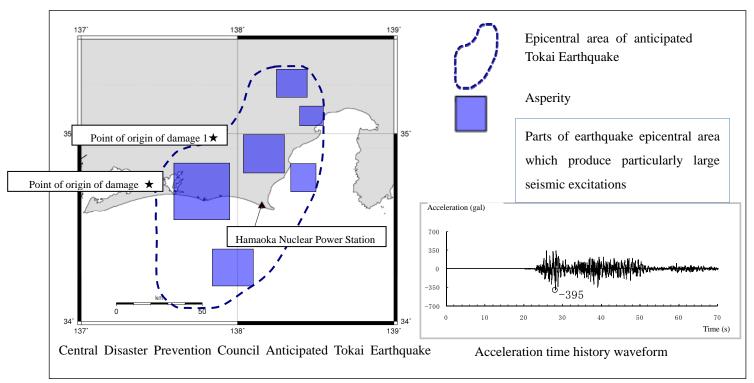
The Ansei Tokai Earthquake (magnitude 8.4) occurred a little more than 150 years ago, in 1854, in the section shown as yellow and designated as (1) in the figure. Ninety years later, in 1944, the Tonankai Earthquake (magnitude 7.9) occurred in the west of the same section (in the area shown as blue and designated as (2) in the figure), but did not affect the east of the section (shown as orange and designated as (3) in the figure). It is anticipated that a Tokai Earthquake will occur in this eastern section.

In December 2001, the Central Disaster Prevention Council reexamined the epicentral area assumed for the earthquake taking tectonic plate structures into consideration, etc., but did not change the projected magnitude from the previous figure of approximately 8.0.



The Central Disaster Prevention Council has calculated the seismic excitation (magnitude of tremors in bedrock) that is expected to occur at the Hamaoka Nuclear Power Station during the anticipated Tokai Earthquake as 395 gal.

(conceptual diagram)



*The content presented in this material has not been reported to the government Working Group.

*Acceleration is the rate at which the surface tremors, etc., caused by the seismic excitations change within a specific period of time. Expressed in gal (unit: cm/s^2).

*The acceleration time history waveform shows the magnitude of the acceleration of the seismic tremors for each unit of time, with time on the horizontal axis.

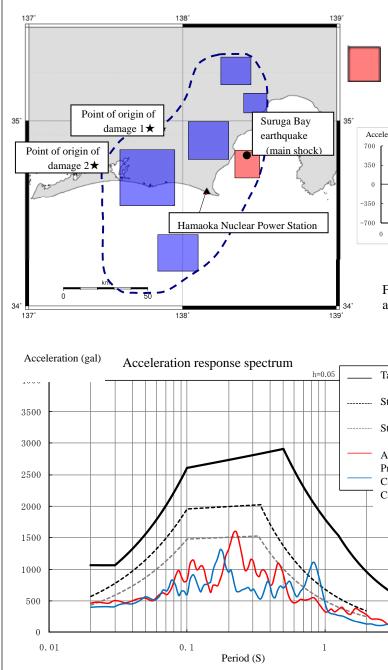
*The acceleration response spectrum is a graph indicating the type of tremors produced in structures by seismic excitations, presented in an easily understandable form, with the horizontal axis showing the natural period of the structures and the vertical axis showing the maximum value of the tremors in the structures (response acceleration).

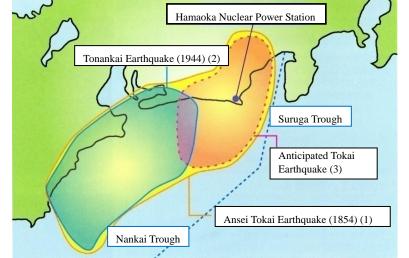
3. Evaluation based on the Suruga Bay Earthquake

During the Suruga Bay earthquake, the tremors recorded at Reactor No. 5 were approximately twice as intense as those recorded at Reactors No. 3 and 4. Given this, the present calculations concerning the anticipated Tokai Earthquake reflected the difference in tremors between Reactor No. 5 and Reactors No. 3 and 4 during the Suruga Bay earthquake with respect to the seismic waves arriving at the power station from the asperity close to the epicenter of the earthquake. The results showed a level of seismic excitation (magnitude of tremors in bedrock) of approximately 500 gals for the Hamaoka Nuclear Power Station.

4. Summary

Work has been conducted on Reactors No. 3-5 to increase the seismic safety margin to resist a target seismic excitation of approximately 1,000 gal. Even when the Suruga Bay earthquake is taken into consideration, seismic excitation in the anticipated Tokai Earthquake would remain sufficiently below target seismic excitation, and the Hamaoka Nuclear Power Station would maintain seismic safety.





Three Earthquake Epicentral Areas Following the Nankai Trough

<Reference>

Asperity	close t	to the e	picente	r of the	e Surug	a Bay
earthqua	ke (pin	k)				
The seis	mic wa	aves ar	riving a	t the p	ower s	tation
from this	s asperi	ty were	e double	ed for c	alculati	ons.
eration (gal)		17				
	Antio	cipated T	okai Eart	hquake (present ca	alculations)
		hand the ball	بالمعديد والمعداف	Autolium		
	a straight		-463			
10	20	30	40	50	60	70 ₽Time (s)
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For the acceleration			ulations	, the	maxin	num
		0				
arget seismic	excitatio	on				
tandard vibra	ation S2					
tandard vibra	ation S1					
nticipated To		hquake:				
resent calculater entral Disast		ntion				
ouncil: 395 g		ition				
		The acceleration response spectrum				
		shows that the seismic excitation				
	during an anticipated Tokai Earthquake as calculated here would fall					
					target se	ismic
		excitation (approximately 1,000 gal)				
		for all	periods.			
	10					