

News Release

Ministry of Economy,  
Trade and Industry (METI)

PRI-07-64

Press Release Information	Nuclear and Industrial Safety Agency (NISA), Ministry of Economy, Trade and Industry (METI)
Report on the revision of the seismic safety assessment (seismic back check) implementation plan from electric power companies etc.	

August 20, 2007

NISA/METI

On August 20, 2007, METI received the reports on the revision of the seismic back check implementation plan from each electric power company etc.

1. The Nuclear Safety Commission revised the "Seismic Safety Review Guidelines on the "Seismic Design Review Guideline for Nuclear Power Reactor Facilities"" (seismic guidelines) on September 19, 2006. On September 20, 2006, Ministry of Economy, Trade and Information (METI) required the electric power companies to submit the implementation plan of the seismic safety assessment (seismic back check), based on the revised seismic guidelines, for their nuclear power plants under operation and under construction, prior to the actual implementation of the assessment (announced on September 20,2006).
2. The electric power companies submitted their implementation plans on October 18,2006 (announced on October 18,2006).
3. On the event of "the Niigataken Chuetsu-oki Earthquake in 2007" occurred on July 16, 2007, METI required the electric power companies to consider the revision of its seismic back check implementation plan.
4. On August 20, 2007, the electric power companies submitted the report on the revision of its implementation plan as shown below.
  - (1) All the electric power companies are scheduling to finish the major part of the geological research and the determination of the basic ground movement assumed by the research results by the end of this fiscal year (March 2008) except for Kashiwazaki-Kariwa Nuclear Power Station and Hamaoka Nuclear Power Station, which had already submitted the seismic back check report. The seismic back check will also be conducted for the safety significant components of one unit for each power

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station. The seismic back check report on Rokkasho reprocessing plant of Japan Nuclear Fuel Ltd. will be submitted in October 2007 and the report on the prototype FBR "Monju" of Japan Atomic Energy Agency in December 2007.

- (2) On the event of the earthquake, the marine sonic survey is additionally conducted for seven power stations (Note-1) and Rokkasho reprocessing plant. Therefore, all the nuclear power which submitted the report on August 20, 2007, conducted the marine sonic surveys, except for Hamaoka NPP, of which seismic back check report had already been submitted and currently under safety review in the sub-committee on the seismic and structural design.

Note-1: Seven power stations are Kashiwazaki-Kariwa, Fukushima-Daiichi, Fukushima-Daini, Shimane, Ikata, Genkai and Tokai-Daini.

- (3) As voluntary action by the electric power companies, aside from the seismic back check, they are planning to evaluate, within about a month, the safety functions under the same ground movement as observed at the basement of the reactor building at Kashiwazaki-Kariwa Nuclear Power Station.
5. METI will continue to require the electric power companies to adequately conduct the seismic back check and will conduct rigorous examination on the assessment results.

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August 20, 2007

**Hokkaido Electric Power Company**  
**Revision of the Seismic Safety Assessment Implementation Plan**  
**for**  
**Tomari Power Station (Summary)**

The minister of economy, trade and industry ordered us to consider the revision of the seismic safety assessment implementation plan for Tomari Power Station in response to the Niigataken Chuetsu-oki Earthquake in 2007. According to the order, we revised the seismic safety assessment implementation plan and reported the results to METI today.

**1. Implementation Status**

In order to establish the design basis earthquake ground motion "Ss", we have been conducting a survey of earthquakes which occurred near the site and a geological survey etc. based on the new seismic guidelines.

Specifically, for the earthquakes which occurred near the site both a literature survey and an analysis and examination of the observation data have been conducted.

As for the geological survey, in order to complement the results of geological surveys conducted in the past near the site and its vicinity, many surveys such as the survey of existing literature, geomorphic investigation from a changing geomorphologic viewpoints, geophysical survey from a reflection survey viewpoint, surficial geology survey, marine sonic survey and the re-assessment of marine sonic survey records have been conducted. At the present time, the supplemental survey and the examination of activity and continuity of the faults are now being conducted.

We plan to assess the seismic safety based on these survey results and findings obtained from the Notohanto Earthquake in 2007 and the Niigataken Chuetsu-oki Earthquake in 2007 which will be adequately reflected in the assessment.

**2. Revised Schedule**

The results of the seismic safety assessment of Units 1 and 2 of Tomari Power Station are scheduled for submission in November 2008 one month ahead of the original schedule. As for Unit 1, the interim report (including the interim results of the geological survey, established "Ss" (design basis earthquake ground motion) and seismic safety assessment for major facilities) will be submitted in March 2008. As for the geological survey, its survey period was extended by two months to August 2007 since the reflection survey was additionally conducted.

Revised schedule (planned) is shown below.

Name of Power Station	Schedule		
	FY2006	FY2007	FY2008
Tomari- 1 and 2 Geological Survey Seismic Safety Assessment		Aug.2007	
			March 2008 Interim Report (Tomari-1) Nov.2008
Tomari-3 Geological Survey Seismic Safety Assessment		Aug.2007	
			Sept.2008

### 3. Reference (voluntary investigation)

Aside from the seismic safety assessment mentioned above, as a voluntary response, we will assess the general impact of the Earthquake on the components of Tomari-1 based on the seismic data observed at the Kashiwazaki-Kariwa NPP and will report the results within one month as a target.

August 20,2007

**Tohoku Electric Power Company**  
**Revision of the Seismic Safety Assessment Implementation Plan**  
**for**  
**Onagawa and Higashidori Nuclear Power Station (Summary)**

The minister of economy, trade and industry ordered us to consider the revision of the seismic safety assessment implementation plan for Onagawa and Higashidori Nuclear Power Stations in response to the Niigataken Chuetsu-oki Earthquake in 2007. According to the order, we revised the seismic safety assessment implementation plan and reported the results to METI today.

**1. Implementation Status**

We have been conducting a survey of earthquakes which occurred near the site and a geological survey etc. based on the new seismic guidelines. Specifically, as for earthquakes which occurred near the site, we collected and examined literature, observation data and survey results of the active faults. As for the geological survey, in addition to the results of geological surveys near the site and its vicinity conducted when applying for the establishment license, based on the knowledge and findings obtained after that time, many surveys such as the aerial photograph interpretation, surficial geology survey, boring survey, reflection survey, marine sonic survey and marine boring survey etc. were conducted while referencing the survey results obtained by other organizations.

Afterwards, based on the survey results obtained up until now, we will additionally conduct the marine sonic survey for Onagawa Nuclear Power Station and the surficial geology survey for Higashidori Nuclear Power Station, and we plan to analyze and assess the results of geological survey by incorporating the related data obtained by other organizations. We will establish the design basis earthquake ground motion "Ss" based on these results, and will assess the seismic safety of each facility.

When assessing the seismic safety, we will adequately reflect findings obtained from the Miyagiken-oki Earthquake in 2005, the Notohanto Earthquake in 2007 and the Niigataken Chuetsu-oki Earthquake in 2007 as needed.

## 2. Revised Schedule

	Revised Schedule (Planned)			
	FY2006	FY2007	FY2008	FY2009
	▼ Aug.20: NISA required to be conducted the seismic safety assessment etc. ▼ July 20: Minister of METI ordered to take measures based on the Niigataken Chuetsu-oki Earthquake in 2007.			
Onagawa-1	▼ October Geological survey and its evaluation	March Seismic Safety Assessment	Interim Report ▼ Dec.	Final Report
Onagawa-2, 3	▼ October Geological survey and its evaluation	Seismic Safety Assessment		Aug.: Final Report ▼
Higashidori-1	▼ October Geological survey and its evaluation	March Seismic Safety Assessment	Interim Report ▼ Sept.	Final Report

\* Additional surveys will be conducted in order to improve the geological survey results and its evaluation. Based on these surveys, the seismic safety assessment of the interim report for major facilities of Onagawa-1 and Higashidori-1 are scheduled for submission in March 2008. Afterwards, the assessment will be conducted in a series and the final reports for Higashidori-1, Onagawa-1 and Onagawa-2, 3 are scheduled for submission in September 2008 (extended by 6 months), December 2008 (moved up by 9 months) and August 2009 (moved up by one month), respectively.

## 3. Reference (voluntary investigation)

Aside from the seismic safety assessment mentioned above, as a voluntary response, we will assess the general impact of the Earthquake on the components based on the seismic data observed at the Kashiwazaki-Kariwa NPP and will report the results within one month as a target.

August 20,2007

Tokyo Electric Power Company

**Revision of the Seismic Safety Assessment Implementation Plan  
for  
Existing Nuclear Power Reactors (Summary)**

The minister of economy, trade and industry ordered us to consider the revision of the seismic safety assessment implementation plan for existing nuclear power reactors in response to the Niigataken Chuetsu-oki Earthquake in 2007. According to the order, we revised the seismic safety assessment implementation plan and reported the results to METI today.

**1. Implementation Status**

As part of the seismic safety assessment of existing nuclear reactor facilities, we have been collecting and examining the survey results of earthquakes which occurred near the site for Fukushima-Daiichi, Fukushima-Daini and Kashiwazaki-Kariwa Nuclear Power Stations.

As for the geological survey near the site and in the associated continental areas, literature survey, aerial photograph interpretation and surficial geology survey have been conducted. Especially, for Fukushima-Daiichi and Fukushima-Daini Nuclear Power Stations, the boring survey near the southern limit of the Futaba fault, of which effects from this fault were considered in the seismic design, has already been conducted and the surficial geology survey at the northern extension portion of the Futaba fault is under way. As for the Kashiwazaki-Kariwa Nuclear Power Station, the reflection survey at the Kashiwazaki Plains, where the site and its vicinity is located, has already been conducted.

As for the geological survey in the sea area, the literature survey and re-analysis of marine sonic survey data obtained by other organizations are under way.

Afterwards, the reflection survey in the continental area surrounding the site and marine sonic survey in the sea area will be conducted for Fukushima-Daiichi, Fukushima-Daini and Kashiwazaki-Kariwa Nuclear Power Stations.

When assessing the seismic safety, we will adequately reflect the findings obtained from the Notohanto Earthquake in 2007 and the Niigataken Chuetsu-oki Earthquake in 2007 as needed.

**2. Revised Schedule**

As for Fukushima-Daiichi and Fukushima-Daini Nuclear Power Stations, the interim report of the seismic safety assessment for the representative unit for each NPP is scheduled for submission by the end of March 2008.

Revised schedule (planned) is shown below.

Name of Power Station	Revised Schedule (Planned)
Fukushima-Daiichi Units 1-6 Geological Survey Seismic Safety Assessment	▼ Sept.2006; Required to be conducted: the seismic safety assessment. ▼ July 2007; Order based on the Niigataken Chuetsu-oki Earthquake in 2007. March 2008    March 2008 Interim Report    June 2009
Fukushima-Daini Units 1-4 Geological Survey Seismic Safety Assessment	March 2008    March 2008 Interim Report    March 2009
Kashiwazaki-Kariwa Units 1-7 Geological Survey Seismic Safety Assessment	March 2008 <div style="border: 1px solid black; padding: 2px; width: fit-content;">             The seismic safety assessment of Kashiwazaki-Kariwa NPP will be conducted based on the Niigataken Chuetsu-oki Earthquake and its results will be sequentially submitted.           </div>

### 3. Reference (voluntary investigation)

Aside from the seismic safety assessment mentioned above, as a voluntary response, we will assess the general impact of the earthquake on the components based on the seismic data observed at the Kashiwazaki-Kariwa NPP and will report the results within one month as a target.



August 20,2007

**Chubu Electric Power Company**  
**Revision of the Seismic Safety Assessment Implementation Plan**  
**for**  
**Hamaoka Nuclear Power Station (Summary)**

The minister of economy, trade and industry ordered us to consider the revision of the seismic safety assessment implementation plan for existing nuclear power reactors in response to the Niigataken Chuetsu-oki Earthquake in 2007. According to the order, we revised the seismic safety assessment implementation plan and reported the results to METI today.

**1. Implementation Status**

We have conducted a survey of earthquakes which occurred near the site and a geological survey etc. based on the new seismic guidelines. Specifically, as for earthquakes which occurred near the site, we collected and examined literature, observation data and survey results of active faults. As for the geological survey, depending on the distance from the site, many surveys such as the survey of existing literature, geomorphic investigation from changing geomorphologic viewpoints, geophysical survey from a reflection survey viewpoint and re-assessment of marine sonic survey records have been conducted. The faults activity and folding related to faults have been conducted based on the most recent knowledge.





Based on these survey results, the seismic safety assessment for Hamaoka-3, -4 was conducted by using the design basis earthquake ground motion "Ss" established taking into account the design earthquake, including inter-plate earthquakes like the scenario of Tokai earthquake, with uncertainty. The assessment results were submitted to NISA.

Afterwards, the assessments for Hamaoka-1, -2 and -5 will continue to be conducted.

When assessing the seismic safety, we will adequately reflect findings obtained from the Notohanto Earthquake in 2007 and the Niigataken Chuetsu-oki Earthquake in 2007 as needed.

## 2. Revised Schedule

Revised schedule (planned) is shown below.

	Revised Schedule (Planned)			
	FY2006	FY2007	FY2008	FY2009
Geological Survey	▼ Aug.20: NISA required the seismic safety assessment to be conducted etc. 	▼ July 20: Minister of METI ordered to take measures based on the Niigataken Chuetsu-oki Earthquake in 2007.  Seismic Safety Assessment		Sept.2009: Final Report ▼
Hamaoka-1,-2				
Hamaoka-3,-4	Seismic Safety Assessment 	▼ The result was submitted in January and February 2006 for Hamaoka-4 and Hamaoka-3, respectively.		
Hamaoka-5	Seismic Safety Assessment 	▼ October 2007: Final Report		

\*In order to reflect the findings obtained from the Niigataken Chuetsu-oki Earthquake in 2007, the final report for Hamaoka-5 is scheduled for submission in October 2007, whereas its original schedule is June 2007.

## 3. Reference (voluntary investigation)

Aside from the seismic safety assessment mentioned above, as a voluntary response, we will assess the general impact of the earthquake on the components based on the seismic data observed at the Kashiwazaki-Kariwa NPP and will report the results within one month as a target.

August 20, 2007

**Hokuriku Electric Power Company**  
**Revision of the Seismic Safety Assessment Implementation Plan**  
**for**  
**Shika Nuclear Power Station (Summary)**

The minister of economy, trade and industry ordered us to consider the revision of the seismic safety assessment implementation plan for Shika Nuclear Power Station in response to the Niigataken Chuetsu-oki Earthquake in 2007. According to the order, we revised the seismic safety assessment implementation plan and reported the results to METI today.

**1. Implementation Status**

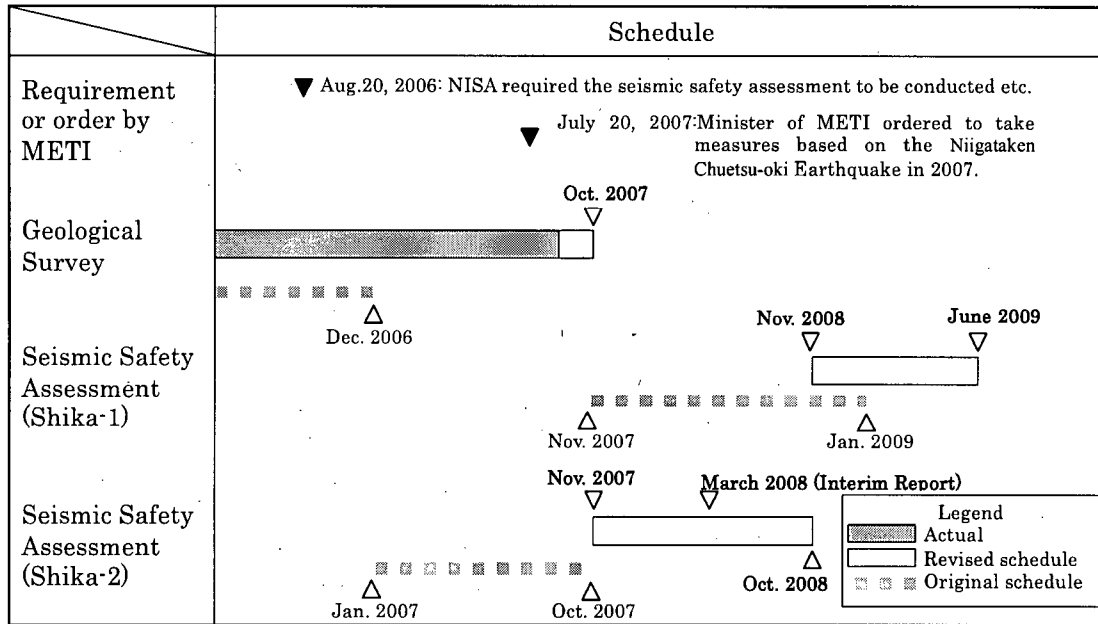
As for the geological survey, we are conducting a survey which adequately combines many survey methods such as the literature survey, changing geomorphologic survey using aerial photograph interpretation and aerial laser measurement, surficial geology survey which directly confirms the geological condition like the trench excavation survey and topsoil removal survey, and geophysical surveys like the reflection survey (about 38km), high resolution gravity survey and marine sonic survey (about 250km) covering the shallow coast area close to the site.

Furthermore, based on the Ishikawaken Noto-oki Earthquake in 2007 which occurred on March 25, 2007, we conducted an aerial laser measurement for the precise analysis of tectonic deformation in the seismic center area in addition to the deliberate surficial geological reconnaissance in the seismic center area. At the present time, many research organizations are conducting the marine sonic survey etc. in the seismic center area of the Ishikawaken Noto-oki Earthquake in 2007. Based on the close cooperation with these surveys and findings of the geological and the seismological research results which are publicly available, we will continue to survey the active fault as the seismic center which caused the Ishikawaken Noto-oki Earthquake in 2007.

When assessing the seismic safety, we will adequately reflect the survey results of geology and ground and findings obtained from the Niigataken Chuetsu-oki Earthquake in 2007 as needed.

**2. Revised Schedule**

The result of the seismic safety assessment for Shika-2 is scheduled for submission in October 2008 in order to adequately reflect findings obtained from the Notohanto Earthquake in 2007. The interim results of geological survey, established "Ss" (design basis earthquake ground motion) and seismic safety assessment for major facilities will be submitted by the end of March 2008.



### 3. Reference (voluntary investigation)

Aside from the seismic safety assessment mentioned above, as a voluntary response, we will assess the general impact of the earthquake on the components of units based on the seismic data observed at the Kashiwazaki-Kariwa NPP and will report the results within one month as a target.

August 20,2007

**Kansai Electric Power Company**

**Revision of the Seismic Safety Assessment Implementation Plan  
for  
Our Nuclear Power Stations (Summary)**

The minister of economy, trade and industry ordered us to consider the revision of the seismic safety assessment implementation plan for existing nuclear power reactors in response to the Niigataken Chuetsu-oki Earthquake in 2007. According to the order, we revised the seismic safety assessment implementation plan and reported the results to METI today.

**1. Implementation Status**

In order to establish the design basis earthquake ground motion "Ss", we have been conducting a survey of earthquakes occurred near the site and a geological survey etc. based on the new seismic guidelines. Specifically, as for earthquakes which occurred near the site, we collected and examined literature, observation data and survey results of active faults.

In order to complement the existing survey data on the stability of the ground, the boring survey has been conducted in the site of each Power Station from FY2006.

In order to complement results of geological surveys conducted in the past near the site and its vicinity, depending on the distance from the site, many surveys such as aerial photograph interpretation, surficial geology survey, high resolution marine sonic survey and the trench excavation survey etc. were conducted. Based on the results of these geological surveys and the existing geological survey data, the activity and continuity of the faults are now being examined.

When assessing the seismic safety, we will adequately reflect findings obtained from the Notohanto Earthquake in 2007 and the Niigataken Chuetsu-oki Earthquake in 2007 as needed.

**2. Revised Schedule**

The results of the seismic safety assessment are scheduled for submission in September 2009 three months ahead of the original schedule of December 2009. The interim results of the geological survey, established the "Ss" (design basis earthquake ground motion) and the seismic safety assessment for major facilities will be submitted by the end of March 2008.

The revised schedule (planned) is shown below.

	Schedule
Mihama-1, -2 and -3 Geological Survey Seismic Safety Assessment	▽ Sept.2006; Required to be conducted the seismic safety assessment. ▽ July 2007; Order based on the Niigataken Chuetsu-oki Earthquake in 2007. ▽ Dec.2007 ▽ March 2008; Interim Report ▽ Sept. 2009 Δ Sept. 2007
Takahama-1, -2, -3 and -4 Geological Survey Seismic Safety Assessment	▽ Dec.2007 ▽ March 2008; Interim Report ▽ Sept. 2009 Δ Sept. 2007
Ohi-1, -2, -3 and -4 Geological Survey Seismic Safety Assessment	▽ Dec.2007 ▽ March 2008; Interim Report ▽ Sept. 2009 Δ Sept. 2007

### 3. Reference (voluntary investigation)

Aside from the seismic safety assessment mentioned above, as a voluntary response, we will assess the general impact of the Earthquake on the components of units based on the seismic data observed at the Kashiwazaki-Kariwa NPP and will report the results within one month as a target.

August 20, 2007

**Chugoku Electric Power Company**  
**Revision of the Seismic Safety Assessment Implementation Plan**  
**for**  
**Shimane Nuclear Power Station (Summary)**

The minister of economy, trade and industry ordered us to consider the revision of the seismic safety assessment implementation plan for Shimane Nuclear Power Station in response to the Niigataken Chuetsu-oki Earthquake in 2007. According to the order, we revised the seismic safety assessment implementation plan and reported the results to METI today.

**1. Implementation Status**

In order to establish the design basis earthquake ground motion "Ss", we have been conducting a survey of earthquakes which occurred near the site and a geological survey etc. based on the new seismic guidelines.

The geological survey has been conducted near the site and its vicinity of Shimane Nuclear Power Station (including the vicinity of the Shinji fault) since July 2006 prior to the revision of seismic guidelines.

As for the land area, depending on the distance from the site, the geomorphic investigation from changing geomorphologic viewpoints, surficial geology survey, geophysical survey from a reflection survey viewpoint, and boring survey have been conducted. While effort has been put on the enrichment of the survey data by increasing the frequency of the survey compared to the original plan, there is a plan to conduct a trench survey in addition to the continuous boring survey to improve the accuracy of the survey data.

For the sea area, while analysis and evaluation of the data from Chugoku Electric Power Company and other organizations has already been carried out based on the latest findings when Unit 3 was built, the marine sonic survey will be conducted to further enrichment of data.

When assessing the seismic safety, we will adequately reflect the results of the geology survey and findings obtained from the Niigataken Chuetsu-oki Earthquake in 2007 as needed.

**2. Revised Schedule**

To further improve the accuracy of the geological survey data, the period of the geological survey has been extended. The completion period has been changed from the original plan of April 2007 to June 2008. Thus, the submission of the result of seismic safety assessment of Unit 2 has been changed from December 2007 to December 2008. Meanwhile, the results of

the seismic safety assessment of Shimane-3 are scheduled for submission in December 2009 one year ahead of the original schedule of December 2010.

In addition, the interim results of the geological survey and the seismic safety assessment for major facilities of Shimane-1 using the established design basis earthquake will be submitted in March 2008.

	Revised Schedule (Planned)			
	FY2006	FY2007	FY2008	FY2009
Geological Survey	▽ September; Required to be conducted the seismic safety assessment.	▽ July; Order based on the Niigataken Chuetsu-oki Earthquake in 2007.	▽ June	
Seismic Safety Assessment Shimane-1 and 2		Interim Report (Unit 1) ▽ March	▽ December; Final Report	
Shimane-3			December; Final Report ▽	

### 3. Reference (voluntary investigation)

Aside from the seismic safety assessment mentioned above, as a voluntary response, we will assess the general impact of the Earthquake on the components of Shimane-1 and 2 based on the seismic data observed at the Kashiwazaki-Kariwa NPP and will report the results within one month as a target.



August 20, 2007

**Shikoku Electric Power Company**

**Revision of the Seismic Safety Assessment Implementation Plan  
for  
Ikata Power Station (Summary)**

The minister of economy, trade and industry ordered us to consider the revision of the seismic safety assessment implementation plan for Ikata Power Stations in response to the Niigataken Chuetsu-oki Earthquake in 2007. According to the order, we revised the seismic safety assessment implementation plan and reported the results to METI today.

**1. Implementation Status**

From the viewpoint of the self-controlled safety preservation, even after starting the operation of Ikata-3, we have been continuously conducting a geological survey near the site and its vicinity, mainly for the Median tectonic line active fault system which is important for seismic safety assessment of Ikata Power Station. Establishment of the design basis earthquake ground motion "Ss" has been conducted through analysis and summary of a geological survey of near the site and its vicinity, as well as a survey of earthquakes which occurred near the site, based on "Seismic Design Review Guideline for Nuclear Power Reactor Facilities" revised by Nuclear and Industrial Safety Agency on September 19, 2006.

At the south side of the Sadamisaki Peninsula of the Uwa Sea, an active fault was not found from the results of the sonic survey carried out during the construction of Unit 3. However, considering the result of the investigation and analysis of the Notohanto Earthquake in 2007 and the Niigataken Chuetsu-oki Earthquake in 2007 from various organizations, in order to expand the data, additional sonic survey will be conducted at Uwa Sea.

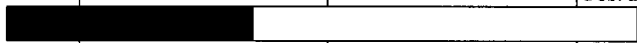
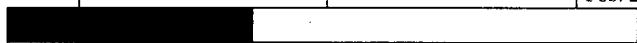

Based on these survey results, the design basis earthquake ground motion "Ss" will be established taking into account the reference earthquake, including earthquakes caused by the Median tectonic line active fault system at the sea area in front of the site, with uncertainty. Then the seismic safety assessment of each facility will be carried out.

When assessing the seismic safety, we will adequately reflect findings obtained from the Notohanto Earthquake in 2007 and the Niigataken Chuetsu-oki Earthquake in 2007 as needed.

**2. Revised Schedule**

The results of the seismic safety assessment of Ikata-1 and 2 are scheduled for submission in February 2009 one month ahead of original schedule. For Ikata-3, the interim results of the

geological survey, established “Ss” (design basis earthquake ground motion) and seismic safety assessment for major facilities will be submitted in March 2008.

Name of Power Station	Schedule		
Ikata Power Station	▼ Sept. 2006; Required to be conducted the seismic safety assessment. ▼ July 2007; Order based on the Niigataken Chuetsu-oki Earthquake in 2007.		
Unit 1 Seismic Safety Assessment			Feb. 2009
Unit 2 Seismic Safety Assessment			Feb. 2009
Unit 3 Seismic Safety Assessment			▼ March 2008; Interim Report July 2008
Sea area survey at Uwa Sea			

- (\*1) Black indicates the actual results.
- (\*2) Report of Ikata-1 and 2 has been moved forward to February 2009.
- (\*3) Interim report of Ikata-3 will be in March 2008.
- (\*4) Schedule of the sea area survey at Uwa Sea is under adjustment.

### 3. Reference (voluntary investigation)

Aside from the seismic safety assessment mentioned above, as a voluntary response, we will assess the general impact of the Earthquake on the components based on the seismic data observed at the Kashiwazaki-Kariwa NPP and will report the results within one month as a target.

August 20, 2007

Kyusyu Electric Power Company

**Revision of the Seismic Safety Assessment Implementation Plan  
for  
Our Nuclear Power Stations (Summary)**

The minister of economy, trade and industry ordered us to consider the revision of the seismic safety assessment implementation plan for our nuclear power stations in response to the Niigataken Chuetsu-oki Earthquake in 2007. According to the order, we revised the seismic safety assessment implementation plan and reported the results to METI today.

**1. Implementation Status**

- (1) In order to establish the design basis earthquake ground motion "Ss", we have been conducting a survey of earthquakes which occurred near the site and the geological survey etc. based on the new seismic guidelines.
  - 1) Collection and examination of literature, observation data and survey results of active faults about the earthquakes which occurred near the Genkai and Sendai Nuclear Power Station.
  - 2) Since 2006, the boring survey has been conducted inside the site of Genkai and Sendai Nuclear Power Station to complement the existing geological survey data.
  - 3) Near the site and the vicinity of Genkai Nuclear Power Station, the surficial geology survey, gravity survey on land, boring survey have been conducted. For the sea area, the geology and structure of geology has been re-assessed based on the marine sonic survey records collected during a survey of existing buildings. However, for further expansion of the data, we are preparing for the implementation of marine sonic survey on our own.
  - 4) Near the site and the vicinity of Sendai Nuclear Power Station, the geological survey is currently being conducted as a part of an environmental survey for the establishment of Unit 3. The geological survey includes the surficial geology survey, reflection survey, boring survey and marine sonic survey.
- (2) We plan to assess the seismic safety of each facility based on these survey results.
- (3) Findings obtained from the Notohanto Earthquake in 2007 and the Niigataken Chuetsu-oki Earthquake in 2007 will be adequately reflected in the assessment.

## 2. Revised Schedule

As for submission of the result of the seismic safety assessment of Our Nuclear Power Stations, the interim results of geological survey, established "Ss" (design basis earthquake ground motion) and seismic safety assessment for major facilities would be submitted on March 2008.

	Revised Schedule (Planned)			
	FY2006	FY2007	FY2008	FY2009
	▼ Sept. 20; NISA required the seismic safety assessment to be conducted etc. ▼ July 20; Minister of METI ordered to take measures based on the Niigataken Chuetsu-oki Earthquake in 2007.			
Genkai Nuclear Power Station	Geological survey 	Sept. 2007 Units 1 and 2 Seismic safety assessment 	▼ March 2008; Interim Report of Genkai-3 Seismic safety assessment 	Sept. 2009
Sendai Nuclear Power Station	Geological survey 	Sept. 2007 ▼ March 2008; Interim Report of Sendai-1 Seismic safety assessment 	Dec. 2008	

## 3. Reference (voluntary investigation)

Aside from the seismic safety assessment mentioned above, as a voluntary response, we will assess the general impact of the Earthquake on the components based on the seismic data observed at the Kashiwazaki-Kariwa NPP and will report the results within one month as a target.

August 20, 2007

Japan Atomic Power Company

**Revision of the Seismic Safety Assessment Implementation Plan  
for  
Tokai-Daini Power Station and Tsuruga Power Station Unit- 1 and 2  
(Summary)**

The minister of economy, trade and industry ordered us to consider the revision of the seismic safety assessment implementation plan for Tokai-Daini Power Station and Tsuruga Power Station Unit- 1 and 2 in response to the Niigataken Chuetsu-oki Earthquake in 2007. According to the order, we revised the seismic safety assessment implementation plan and reported the results to METI today.

**1. Implementation Status**

We have been conducting a survey of earthquakes occurred near the site and a geological survey etc. based on the new seismic guidelines. Specifically, as for earthquakes which occurred near the site, we collected and examined literature, observation data and survey results of active faults. Based on the results of the geological survey stated below and existing geological survey data, the activity and continuity of faults and folding related to the fault will be examined. We plan to assess the seismic safety based on these survey results and findings obtained from the Notohanto Earthquake in 2007 and the Niigataken Chuetsu-oki Earthquake in 2007 will be adequately reflected in the assessment.

**(1) Tokai-Daini Power Station**

As for the geological survey near the site, a more detailed geomorphic investigation from changing geomorphologic viewpoints and the surficial geology survey has been implemented.

In addition, a geological survey of the sea area, from the viewpoint of expansion of the data, the marine sonic survey with a high-resolution multi-channel system has been conducted.

**(2) Tsuruga Power Station**

For the geological survey near the site based on the new seismic guidelines and an additional survey of active faults near the site for the safety investigation of Tokai-Daini Power Station and Tsuruga Power Station Unit-3 and 4, a more detailed geomorphic investigation from changing geomorphologic viewpoints, surficial geology survey, geophysical survey including marine sonic survey, boring survey trench survey etc. have been conducted.

**2. Revised Schedule**

As for submission of the result of the seismic safety assessment of Tokai-Daini Power Station and Tsuruga Power Station Unit- 1 and 2, in order to show the assessment result at an early stage, the interim results of geological survey, established "Ss" (design basis earthquake ground motion) and seismic safety assessment for major facilities will be submitted by the end of March 2008.

Revised Schedule (Planned) is shown below;

Name of Power Station and Implemented Items	Schedule
Tokai-Daini Power Station Geological Survey  Seismic Safety Assessment	▼ Sept. 2006; NISA required the seismic safety assessment to be conducted etc. ▼ July. 2007; Minister of METE ordered to take measures based on the Niigataken Chuetsu-oki Earthquake in 2007. ▼ March 2008 ▼ March 2008 Interim Report Dec. 2008
	▼ Sept. 2007 ▼ March 2008 Interim Report March 2009
Tsuruga Power Station Unit-1 and 2 Geological Survey  Seismic Safety Assessment	▼ Sept. 2007 ▼ March 2008 Interim Report March 2009

- (\*1) For the geological survey of Tokai-Daini Power Station, completion of the survey has been changed from the original plan of March 2007 to March 2008 in order to conduct the marine sonic survey from the viewpoint to further complement of the data in the sea area.
- (\*2) For the geological survey of Tsuruga Power Station Unit-1 and 2, the survey has been continued to carry out analysis and assessment of survey data properly, and thus completion of survey has been changed from original plan of March 2007 to September 2007.
- (\*3) The above schedule may change according to the progress of assessment
- (\*4) Black indicates the actual results

### 3. Reference (voluntary investigation)

Aside from the seismic safety assessment mentioned above, as a voluntary response, we will assess the general impact of the Earthquake on the components based on the seismic data observed at the Kashiwazaki-Kariwa NPP and will report the results within one month as a target.

August 20, 2007

Japan Nuclear Fuel Limited

**Revision of the Seismic Safety Assessment Implementation Plan  
for  
Existing Reprocessing Plant and Existing Specific Radioactive Waste  
Management Facilities (Summary)**

The minister of economy, trade and industry ordered us to consider the revision of the seismic safety assessment implementation plan for existing reprocessing plant and existing specific radioactive waste management facilities in response to the Niigataken Chuetsu-oki Earthquake in 2007. According to the order, we revised the seismic safety assessment implementation plan and reported the results to METI today.

**1. Implementation Status**

In order to establish the design basis earthquake ground motion "Ss", we have been conducting a survey of earthquakes which occurred near the site and a geological survey etc. based on the new seismic guidelines.

Specifically, as for earthquakes which occurred near the site, we collected and examined literature of the Earthquake Research Committee of the headquarters for Earthquake Research Promotion, Ministry of Education, Culture, Sports, Science and Technology, and the Central Disaster Prevention Council of Cabinet Office, observation data and survey results of active faults.



As for the geological survey, depending on the distance from the site, existing literature survey, changing geomorphologic survey, surficial geological survey, geophysical survey, re-assessment of marine sonic survey records have been conducted, and the activity of faults have been investigated.

Based on the above, the seismic safety assessment of buildings and structures by the established design basis earthquake ground motion "Ss" has been completed and the seismic safety assessment of equipment and pipes based on the new seismic guidelines has been conducted.

Findings obtained from the Niigataken Chuetsu-oki Earthquake in 2007 will be adequately reflected in the seismic safety assessment.

**2. Revised Schedule**

Revised Schedule (Planned) for the existing reprocessing plant and existing specific radioactive waste management facilities is shown below;

Revised Schedule (Planned)	
Geological Survey	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;">           June 2006   </div> <div style="width: 35%; text-align: center;">           Sept. 20, 2006; NISA required the seismic safety assessment to be conducted etc.            March 2007         </div> <div style="width: 30%;">           July 20, 2007; Minister of METI ordered to take measures based on the Niigataken Chuetsu-oki Earthquake in 2007         </div> </div>
Seismic Safety Assessment	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;">           Oct. 2006   </div> <div style="width: 35%; text-align: center;">           Seismic safety assessment         </div> <div style="width: 30%;">           Oct. 2007; Final Report         </div> </div>

(\*1) In the original plan, submission of seismic safety assessment was planned for July 2007. However, in order to reflect the findings obtained from the Niigataken Chuetsu-oki Earthquake in 2007, the report will be submitted in October.

### 3. Reference (voluntary investigation)

Aside from the seismic safety assessment mentioned above, as a voluntary response, we will assess the general impact of the Earthquake on the components based on the seismic data observed at the Kashiwazaki-Kariwa NPP and will report the results within one month as a target.



**Revision of the Seismic Safety Assessment Implementation Plan  
for  
Prototype FBR Monju (Summary)**

Nuclear and Industrial Safety Agency (NISA) ordered us to consider the revision of the seismic safety assessment implementation plan for Prototype FBR Monju in response to the Niigataken Chuetsu-oki Earthquake in 2007. According to the order, we revised the seismic safety assessment implementation plan and reported the results to NISA today.

**1. Implementation Status**

In order to establish the design basis earthquake ground motion "Ss", we have been conducting a survey of earthquakes which occurred near the site and a geological survey etc. based on the new seismic guidelines. Specifically, as for earthquakes which occurred near the site, we collected and examined literature, observation data and survey results of active faults.

In order to complement the existing survey data on the stability of the ground, the boring survey has been conducted in the site.



In order to complement the results of geological surveys conducted in the past near the site and its vicinity, depending on the distance from the site, geomorphic investigation from changing geomorphologic viewpoints, and a high-resolution marine sonic survey have been conducted. Based on the results of these geological surveys and existing geological survey data, the activity and continuity of faults are now being examined.

Until now, in order to conduct the seismic safety assessment, components to be assessed have been grouped after preparation of an analysis code used for assessment, compilation of the existing assessment results, and confirmation of a design safety margin of each component. From now on, as soon as the design basis earthquake ground motion "Ss" is established based on the result of geological survey, the assessment of buildings, civil engineering structures and equipment will be carried out.

Findings obtained from the Notohanto Earthquake in 2007 and the Niigataken Chuetsu-oki Earthquake in 2007 will be adequately reflected in the seismic safety assessment.

## 2. Revised Schedule

Schedule of implementation of safety seismic assessment (Planned) is shown below;

Implementation Item	Schedule
Geological Survey	▼ Sept. 2006; NISA required the seismic safety assessment to be conducted etc.      ▼ July 2007; Minister of METI ordered to take measures based on the Niigataken Chuetsu-oki Earthquake in 2007 Sept. 2007 
Seismic Safety Assessment	April 2007      Dec. 2007 

No change from the schedule submitted on October 18, 2006.

(\*1) The above schedule is subject to change according to the progress of assessment.

(\*2) Black indicates the actual results.

## 3. Reference (voluntary investigation)

Aside from the seismic safety assessment mentioned above, as a voluntary response, we will assess the general impact of the Earthquake on the components based on the seismic data observed at the Kashiwazaki-Kariwa NPP and will report the results within one month as a target.