

A scare, then relief after powerful Japan quake and tsunami (Update)

November 22 2016, by Ken Moritsugu



In this image made off a video released by Miyagi Prefectural Police, water rush up Sunaoshi river in Tagajo, Miyagi prefecture Tuesday, Nov. 22, 2016. A powerful earthquake off the northeast Japanese shore Tuesday sent residents fleeing to higher ground and prompted worries about the Fukushima nuclear power plant destroyed by a tsunami five year ago. (Miyagi Prefectural Police/Kyodo News via AP)

At first, it was 2011 all over again.

"It really came back. And it was so awful. The sways to the side were huge," Kazuhiro Onuki said after northeastern Japan was jolted Tuesday by a magnitude-7.4 earthquake, the strongest since a devastating quake and tsunami five years ago.

"But nothing fell from the shelves," Onuki, 68, said in a phone interview, his voice calm and quiet.

Coastal residents returned home from higher ground, and fishing boats to port, after tsunami warnings were lifted along Japan's Pacific coast. The earthquake gave Tokyo—240 kilometers (150 miles) away—a good shake, but was much less powerful than the magnitude-9.0 quake in 2011, and only moderate tsunami waves reached shore.

The Fukushima Dai-ichi nuclear power plant, which leaked radiation for kilometers (miles) after the 2011 tsunami, reported no abnormalities. Decommissioning work on the destroyed reactors was suspended and the site inspected.

At least 14 people were reported injured, three with broken bones, and Japanese TV showed items scattered on the floor in a store and books fallen from shelves in a library.



In this image made from video released by Miyagi Prefectural Police, the water flows up river in the Sunaoshi River in Tagajo, Miyagi prefecture, northern Japan, as a tsunami warning is issued following a strong earthquake Tuesday, Nov. 22, 2016. A powerful earthquake off the northeast Japanese shore Tuesday sent residents fleeing to higher ground and prompted worries about the Fukushima nuclear power plant destroyed by a tsunami five year ago. The warning was lifted nearly four hours later. (Miyagi Prefectural Police/Kyodo News via AP)

On the coast, lines of cars snaked away in the pre-dawn darkness after authorities urged residents to seek higher ground immediately.

The first tsunami waves hit about an hour later. The highest one, at 1.4 meters (4.6 feet), reached Sendai Bay about two hours after the quake. By comparison, the waves in 2011 were 10 to 20 meters (30 to 60 feet)

high.

The evacuation appeared to proceed calmly. Katushiro Abe, a 47-year-old tourism official in Ishinomaki, a city hit hard by the 2011 tsunami, was on the early shift and already in the office, but his wife and teenage daughter fled their home.

He said his family jumped in a car and drove to the foot of a nearby hill and rushed up.



Firefighters and others watch the port to check the water level as a tsunami warning is issued following an earthquake in Soma, Fukushima prefecture, northern Japan, Tuesday, Nov. 22, 2016. Coastal residents in Japan were ordered to flee to higher ground on Tuesday after a strong earthquake struck off the coast of Fukushima prefecture. (Hironori Asakawa/Kyodo News via AP)

Tsunami alerts have been issued at least two times since 2011, he said, so his family was prepared and wasn't that alarmed. "We stayed in touch by

email," he said.

It was the largest earthquake in northeastern Japan since the one in 2011 and some large aftershocks the same day. The U.S. Geological Survey measured Tuesday's quake at a lower magnitude 6.9.

The Japan Meteorological Agency described it as an aftershock of the 2011 quake, which triggered a tsunami that killed about 18,000 people and wiped out entire neighborhoods.

"Aftershocks could continue not only for five years but as long as 100 years," Yasuhiro Umeda, a Kyoto University seismologist, said on Japanese broadcaster NTV.



In this image made off a video released by Miyagi Prefectural Police, water rush up Sunaoshi river in Tagajo, Miyagi prefecture Tuesday, Nov. 22, 2016. A powerful earthquake off the northeast Japanese shore Tuesday sent residents fleeing to higher ground and prompted worries about the Fukushima nuclear power plant destroyed by a tsunami five year ago. (Miyagi Prefectural Police/Kyodo News via AP)

In some areas, water could be seen moving up rivers, which funnel the waves to even greater heights, but remained well within flood embankments. It was eerily reminiscent of the 2011 disaster, when much larger waves rushed up rivers and overflowed, sweeping away houses and automobiles.

Captains took their boats out to sea to avoid any damage as the waves rolled in.

"When I evacuated offshore, I experienced unusual waves," crew leader Hideo Ohira said after returning to Onahama port. "But they were not that big."

TEPCO, the utility that operates the Fukushima Dai-ichi plant, said a swelling of the tide of up to 1 meter (3 feet) was detected offshore.



Vehicles make a line as they flee following a tsunami warning in Iwaki, Fukushima prefecture early Tuesday, Nov. 22, 2016. Coastal residents in Japan were ordered to flee to higher ground on Tuesday after a strong earthquake struck off the coast of Fukushima prefecture. (Kyodo News via AP)

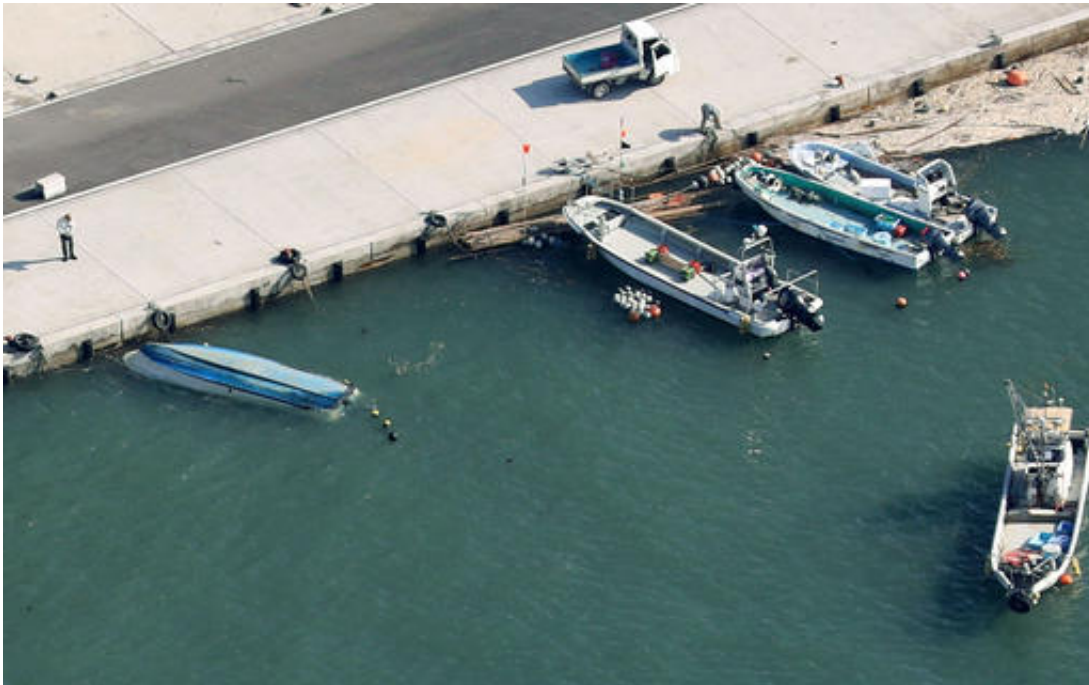
The plant is being decommissioned after the 2011 tsunami sent three of its reactors into meltdown, but the site remains at risk as the utility figures out how to remove still-radioactive fuel rods and debris and what to do with the melted reactor cores.

At the nearby Fukushima Dai-ni plant, TEPCO said a pump that supplies cooling water to a spent fuel pool stopped working, but a backup pump was employed after about 90 minutes, and the temperature rose less than one degree.

Naohiro Masuda, head of TEPCO's decommissioning unit, said he believes a safety system shut off the pump automatically as the water in the pool shook.

Onuki, the man who recalled the 2011 quake, has not been able to return to his home in Tomioka since then. The town remains a no-go zone because of radioactive contamination. He was staying at what he calls one of his temporary homes on Tuesday.

"I felt again that we should not have nuclear power," he said.



This aerial photo shows a fishing boat believed to be overturned by tsunami following a strong earthquake in Higashimatsushima, Miyagi prefecture, northern Japan, Tuesday, Nov. 22, 2016. A powerful earthquake off the northeast Japanese shore early Tuesday sent residents fleeing to higher ground after a tsunami warning was issued and prompted worries about the Fukushima nuclear power plant destroyed by a tsunami five year ago. The warning was lifted nearly four hours later. (Kyodo News via AP)



This aerial photo shows Fukushima Dai-ichi nuclear power plant in Okuma, Fukushima Prefecture, following a strong earthquake hit off the coast of Fukushima, northern Japan, Tuesday, Nov. 22, 2016. The operator of the plant, which was swamped by the 2011 tsunami, sending three reactors into meltdown and leaking radiation into the surrounding area, said there were no abnormalities observed at the plant, though a swelling of the tide of up to 1 meter was detected offshore. (Kyodo News via AP)



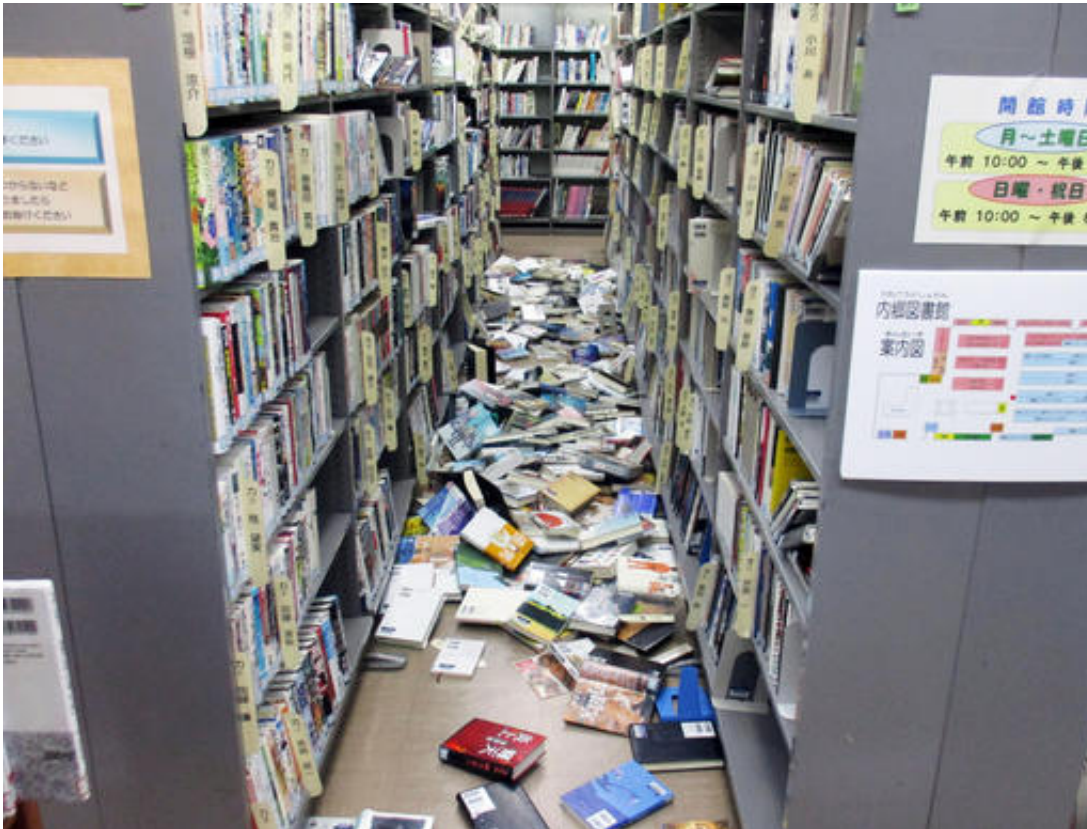
Firefighters and city officials check the water level at an estuary following a tsunami warning in Iwaki, Fukushima prefecture, early Tuesday, Nov. 22, 2016. Coastal residents in Japan were ordered to flee to higher ground on Tuesday after a strong earthquake struck off the coast of Fukushima prefecture. (Kyodo News via AP)



Passengers crowd around the information board posting full suspension of the Tohoku Main Line train service due to an earthquake at Sendai Station in Sendai, Miyagi prefecture, northern Japan, Tuesday, Nov. 22, 2016. Coastal residents in Japan were ordered to flee to higher ground on Tuesday after a strong earthquake struck off the coast of Fukushima prefecture. (Jun Hirata/Kyodo News via AP)



Japan Meteorological Agency earthquake expert Koji Nakamura speaks about a strong earthquake with a magnitude of 7.4 that struck off the coast of Fukushima prefecture during a press conference in Tokyo Tuesday, Nov. 22, 2016. Coastal residents in Japan were ordered to flee to higher ground after the quake. The agency issued a tsunami warning for waves of up to 3 meters (10 feet) in Fukushima, north of Tokyo, which is home to the nuclear power plant that was destroyed by a huge tsunami following an offshore earthquake in 2011. There were no immediate reports of damage or injury. (Yosuke Mizuno/Kyodo News via AP)



Books are scattered on the floor at a library in Iwaki, Fukushima prefecture Tuesday, Nov. 22, 2016 after a strong earthquake. A powerful earthquake off the northeast Japanese shore Tuesday sent residents fleeing to higher ground and prompted worries about the Fukushima nuclear power plant destroyed by a tsunami five year ago. (Kyodo News via AP)



Passengers crowd at Sendai Station in Sendai, Miyagi prefecture, northern Japan Tuesday, Nov. 22, 2016 after train services are suspended following an earthquake. Coastal residents in Japan were ordered to flee to higher ground on Tuesday after a strong earthquake struck off the coast of Fukushima prefecture. (Jun Hirata/Kyodo News via AP)



Japan Meteorological Agency earthquake expert Koji Nakamura points a map of Fukushima and its surrounding prefectures during a press conference in Tokyo on a strong earthquake with a magnitude of 7.4 that struck off the coast of Fukushima Tuesday, Nov. 22, 2016. Coastal residents in Japan were ordered to flee to higher ground after the quake. The agency issued a tsunami warning for waves of up to 3 meters (10 feet) in Fukushima, north of Tokyo, which is home to the nuclear power plant that was destroyed by a huge tsunami following an offshore earthquake in 2011. There were no immediate reports of damage or injury. (Yosuke Mizuno/Kyodo News via AP)

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