



| MAIL | You might also like: Politics Daily, AOL Good News and More

News **Web**

Search News and Topics

Main Nation World Business Entertainment Sports Politics Health Weird Opinion



Explosion Rocks Japan Nuclear Plant



Wisconsin Labor Protesters Refuse to Quit

WORLD

Explosion Rocks Japan Nuclear Plant

Mar 12, 2011 – 11:39 AM

Text Size

[Email This](#)

Yuri Kageyama

AP

IWAKI, Japan - An explosion at a nuclear power plant on Japan's devastated coast destroyed a building Saturday and added leaking radiation, or even outright meltdown, to the threats menacing a nation just beginning to grasp the scale of a catastrophic earthquake and tsunami.

The Japanese government said radiation emanating from the plant appeared to have decreased after the blast, which produced an intensifying cloud of white smoke that swallowed the complex. But authorities did not say why, and the precise cause of the explosion and the extent of the ongoing danger were not clear.

Japan dealt with the nuclear threat as it struggled to determine the scope of the earthquake, the most powerful in its recorded history, and the tsunami that ravaged its northeast Friday with breathtaking speed and power. The official count of the dead was 574, but the government said the figure could far exceed 1,000.

Teams searched for the missing along hundreds of miles of the Japanese coast, and thousands of

FROM OUR PARTNERS
 hungry survivors huddled in darkened emergency centers that were cut off from rescuers and aid. At least a million households had gone without water since the quake struck. Large areas of the countryside were surrounded by water and unreachable.



The Yomiuri Shimbun / AP

Fukushima Daiichi power plant's Unit 1 is seen in Okumamachi, Fukushima prefecture, Japan, Friday. An explosion at the nuclear power plant following Friday's earthquake stoked fears of a nuclear meltdown.

The explosion at the nuclear plant, Fukushima Dai-ichi, 170 miles northeast of Tokyo, appeared to be a consequence of steps taken to prevent a meltdown after the quake and tsunami knocked out power to the plant, crippling the system used to cool fuel rods there.

Tsunami Relief: [Network for Good](#)

The blast destroyed the building housing the reactor, but not the reactor itself, which is enveloped by stainless steel 6 inches thick.

Inside that superheated steel vessel, water being poured over the fuel rods to cool them formed hydrogen. When officials released some of the hydrogen gas to relieve pressure inside the reactor, the hydrogen apparently reacted with oxygen, either in the air or the cooling water, and caused the explosion.

"They are working furiously to find a solution to cool the core," said Mark Hibbs, a senior associate at the Nuclear Policy Program for the Carnegie Endowment for International Peace.

Related Stories

[Reports: 9,500 Missing in Japan Coastal Town](#)

[US Media Criticized on Japan Earthquake Aftermath \[VIDEO\]](#)

[Scenes of Devastation at Heart of Japan Disaster](#)

Nuclear agency officials said Japan was injecting sea water into the core - an indication, Hibbs said, of "how serious the problem is and how the Japanese had to resort to unusual and improvised solutions to cool the reactor core."

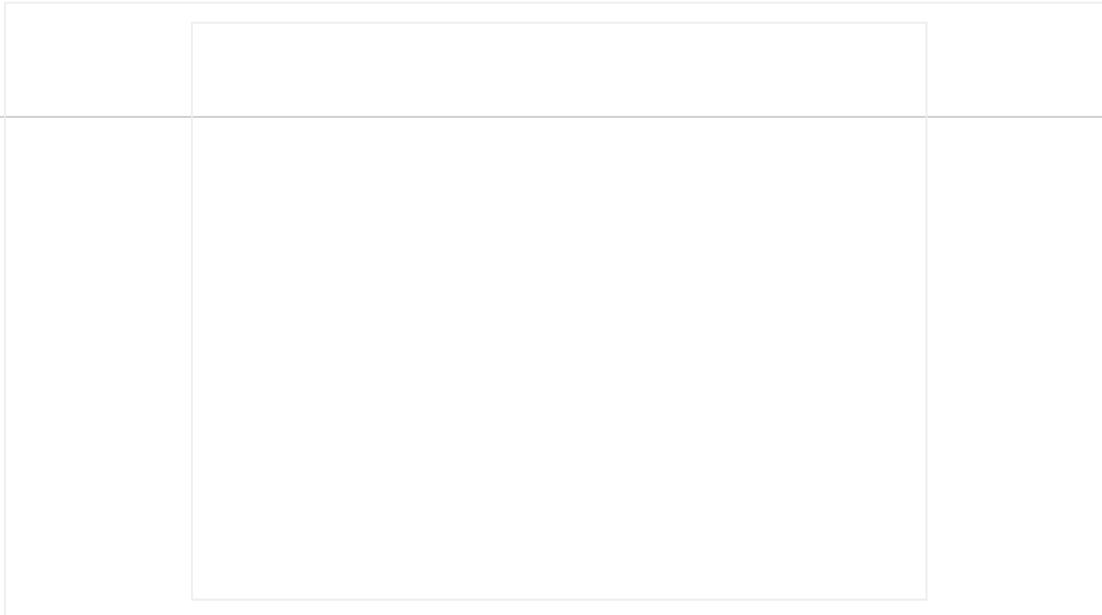
Officials declined to say what the temperature was inside the troubled reactor, Unit 1. At 2,200 degrees Fahrenheit, the zirconium casings of the fuel rods can

react with the cooling water and create hydrogen. At 4,000 degrees, the uranium fuel pellets inside the rods start to melt, the beginning of a meltdown.

Chief Cabinet Secretary Yukio Edano said radiation around the plant had fallen, not risen, after the blast. Virtually any increase in dispersed radiation can raise the risk of cancer, and authorities were planning to distribute iodine, which helps protect against thyroid cancer. Authorities urged people within 12 miles of the reactor to leave.

It was the first time Japan had confronted the threat of a significant spread of radiation since the greatest nightmare in its history, a catastrophe exponentially worse: the 1945 atomic bombings of Hiroshima and Nagasaki by the United States, which resulted in more than 200,000 deaths from the explosions, fallout and radiation sickness.

Japan Earthquake Triggers Tsunami



AP

500 photos

A child is held by rescue workers after being pulled from a building in Kesenuma, Japan, on Saturday, one day after a giant quake and tsunami struck the country's northeastern coast. **Click through for more images from the tragedy.**

(Note: Please disable your pop-up blocker)

Officials have said that radiation levels at Fukushima were elevated before the blast: At one point, the plant was releasing each hour the amount of radiation a person normally absorbs from the environment each year.

The Japanese utility that runs the said four workers suffered fractures and bruises and were being treated at a hospital.

Si
M
H
W
cc

D
L
S
w

S
G
tir
wi

N

;

,

!

{

;

}

;

10

As Japan entered its second night since the magnitude-8.9 quake, there were grim signs that the death toll could soar. One report said no one could find four whole trains. Others said 9,500 people in one coastal town were unaccounted for and that at least 200 bodies had washed ashore elsewhere.

Atsushi Ito, an official in Miyagi prefecture, among the worst hit states, could not confirm the figures, noting that with so little access to the area, thousands of people in scores of towns could not yet be reached.

"Our estimates based on reported cases alone suggest that more than 1,000 people have lost their lives in the disaster," Edano said. "Unfortunately, the actual damage could far exceed that number considering the difficulty assessing the full extent of damage."

Japan, among the most technologically advanced countries in the world, is well-prepared for earthquakes. Its buildings are made to withstand strong jolts - even Friday's, the strongest in Japan since official records began in the late 1800s. The tsunami that followed was beyond human control.

With waves 23 feet high and the speed of a jumbo jet, it raced inland as far as six miles, swallowing homes, cars, trees, people and anything else in its path.

"The tsunami was unbelievably fast," said Koichi Takairin, a 34-year-old truck driver who was inside his sturdy, four-ton rig when the wave hit the port town of Sendai. "Smaller cars were being swept around me. All I could do was sit in my truck."

His rig ruined, he joined the steady flow of survivors who walked along the road away from the sea and back into the city Saturday.

Smashed cars and small airplanes were jumbled against buildings near the local airport, several miles from the shore. Felled trees and wooden debris lay everywhere as rescue workers in boats nosed through murky waters and around flooded structures.

The tsunami set off warnings across the Pacific Ocean, and waves sent boats crashing into one another and demolished docs on the U.S. West Coast. In Crescent City, Calif., near the Oregon state line, one person was swept out to sea and had not been found Saturday.

In Japan early Sunday, firefighters had yet to contain a large blaze at the Cosmo Oil refinery in the city of Ichihara. Four million households remained without power. The Russian news agency RIA Novosti reported that Japan had asked for additional energy supplies from Russia.

Prime Minister Naoto Kan said 50,000 troops had joined the rescue and recovery efforts, helped

by boats and helicopters. Dozens of countries offered to pitch in. President Barack Obama said one American aircraft carrier was already off Japan and a second on its way.

Aid had just begun to trickle into many areas. More than 215,000 people were living in 1,350 temporary shelters in five prefectures, the Japanese national police agency said.

"All we have to eat are biscuits and rice balls," said Noboru Uehara, 24, a delivery truck driver who was wrapped in a blanket against the cold at a shelter in Iwake. "I'm worried that we will run out of food."

The transport ministry said all highways from Tokyo leading to quake-stricken areas were closed, except for emergency vehicles. Mobile communications were spotty and calls to the devastated areas were going unanswered.

One hospital in Miyagi prefecture was seen surrounded by water, and the staff had painted "SOS," in English, on its rooftop and were waving white flags.

Sponsored Links

[Mom Is 55, Looks 35...](#)

Her clever \$5 wrinkle therapy angers Botox Doctors. We reveal how...
consumer2news.com/no-wrinkle

["Strange Fruit Burns Fat"](#)

Study: Burns 12.3 Pounds of Fat Every...
www.Post-Sentinel.com

[Not Sleeping at Night?](#)

Amazing solution to solve your sleep problems forever.
HealthHeadlines.com

[Buy a link here](#)

Around the nuclear plant, where 51,000 people had previously been urged to leave, others struggled to get away.

"Everyone wants to get out of the town. But the roads are terrible," said Reiko Takagi, a middle-aged woman, standing outside a taxi company. "It is too dangerous to go anywhere. But we are afraid that winds may change and bring radiation toward us."

Although the government played down fears of radiation leak, Japanese nuclear agency spokesman Shinji Kinjo acknowledged there were still fears of a meltdown - the

collapse of a power plant's systems, rendering it unable regulate temperatures and keep the reactor fuel cool.

Yaroslav Shtrombakh, a Russian nuclear expert, said it was unlikely that the Japanese plant would suffer a meltdown like the one in 1986 at Chernobyl, when a reactor exploded and sent a cloud of radiation over much of Europe. That reactor, unlike the reactor at Fukushima, was not housed in a sealed container.

"It's not a fast reaction like at Chernobyl," he said. "I think that everything will be contained within the grounds, and there will be no big catastrophe."

Kageyama reported from Tokyo. Associated Press writers Malcolm J. Foster, Mari Yamaguchi,

Tomoko A. Hosaka and Shino Yuasa in Tokyo, Jay Alabaster in Sendai, Sylvia Hui in London, David Nowak in Moscow, and Margie Mason in Hanoi also contributed.

Sponsored Links

Mom Is 55, Looks 35...

Her clever \$5 wrinkle therapy angers Botox Doctors. We reveal how...
consumer2news.com/no-wrinkle

"Strange Fruit Burns Fat"

Study: Burns 12.3 Pounds of Fat Every 28 Days. Can It Work for You?
www.Post-Sentinel.com

Walt Disney World® Resort

Room & Ticket vacation packages that fit your family and your budget!
disneyworld.disney.go.com

[Buy a link here](#)

Filed under: [World](#)

Tagged: barack obama, energy conversion, international news, japan, m i economic g13 economies economy - japan, m i market energy nuclear, news, news and politics, nuclear power, power and energy technologies, science and technology, sendai, technology

Copyright 2011 The Associated Press. The information contained in the AP news report may not be published, broadcast, rewritten or otherwise distributed without the prior written authority of The Associated Press. Active hyperlinks have been inserted by AOL.

[Email This](#)

1892 COMMENTS

ADD YOUR COMMENT

Hot Leads



'Gopher' Plots New Show to Tackle Radical Islam

-- Fox News

Michele Bachmann Mangles Revolutionary History -- Huffington Post

Reports: 9,500 Missing in Japan Coastal Town -- AOL News

Britney Spears Disgusted by Birds & Bees -- Fox News

DWill Quake Cause Debt Crisis? -- Time

History's 10 Most Devastating Temblors -- Daily Beast



UR
The
Aft

Cul
Am
Spy

Wis
The

Ara
Zor

U.S
Me

Mo

Getty Images

Related Articles

From AOL News

[China Surpasses Japan as World's No. 2 Economy](#)
26 days ago

[Explosion at Moscow Airport Kills at Least 31, Wounds 130](#)
47 days ago

[Radioactive Leak, Fire Shut Down 2 Nuclear Reactors](#)
72 days ago

[Strong Earthquake Hits Off Southern Japan](#)
73 days ago

Latest From Our Partners

[Analyst Calls: AMTD, BPL, BX, ERIC, FTE, GGP, HCBK, HCN, NE, PPL, TUP ...](#)
BloggingStocks-8 days ago

[Chris Weidman Ready to Shock and Surprise at UFC on Versus 3](#)
FanHouse-8 days ago

[Twitter Says No Plans for IPO or Fundraising on the Horizon](#)
DailyFinance-8 days ago

[Americans Less Angry at Washington Now Than During 2010 Campaign, Poll Says](#)
Politics Daily-8 days ago

THI

Joe Giv

Ber Sar Dip Urg

Rol The anc

Rep Is a Bea

Mo

THE DAILY BEAST

[Japan's Nuclear Meltdown Fears](#)

[Hillary Clinton on Middle East Women's Revolution](#)

[Why America Isn't Ready for a Disaster](#)

[Murdoch Lieutenant Under Fire](#)

[Ladies Lock and Load: American Women Buying More Guns](#)

[More Stories »](#)

Newsweek

[The Art in This Gallery Is Good Enough to Eat](#)

[Spring Is Coming](#)

[Bookbag: Jodi Picoult's Picks](#)

[John Galliano's Renegade Talent Won't Disappear](#)

[Peer Pressure Can Solve the World's Problems](#)

[More Stories »](#)

S salon.com

[Can an electric car save the American dream?](#)

[Why Japan probably won't face a new Chernobyl](#)

[3 evacuees near Japan nuclear plant exposed to radiation](#)

[Arab League asks for no-fly zone over Libya](#)

[Bill Maher: The Quran is a "hate-filled holy book"](#)

[More Stories »](#)

THE WEEK

[Weekend talking points: 5 top stories](#)

['The Longevity Project': 5 \(surprising\) secrets to living longer](#)

[Japan's 'remarkable' disaster preparation: 4 theories](#)

[Jan Brewer's 'painfully awkward' broken-teleprompter pause](#)

[Why does Justice Scalia insult his colleagues?](#)

[More Stories »](#)

FO

Ok! Ariz Bill

Me: Ure Bre:

Mig May Wai Batt

Lati Esc:

On: for 1 Me:

Moi

AtlanticWire

CNN.com

[Doubting HBO's Online Gamble](#)

[Cartoon: NPR Serves Up Own Head on a Plate](#)

[The NFL Lockout Starts At Midnight \(Unless It Doesn't\)](#)

[Eight Reasons Why Saudi Arabia's 'Day of Rage' Fizzled](#)

[The Least Urgent Item of Earthquake-Related News Today](#)

[More Stories »](#)

[Report: Explosion near Japanese nuclear plant](#)

[Arab League backs Libya no-fly zone](#)

[Arrests made in Cairo camel assault](#)

[2 dead in protests across Yemen](#)

[U.S. man in Cuba sentenced to 15 years](#)

[More Stories »](#)

Also on AOL >>>

Deadly Diaper Feud



Facebook argument leads to stabbing

X-Rated Pop Drama



Did Spears send racy pics to bodyguard?

Latest News

The Playboy Jet
Airport Security
Daylight saving time
Offensive Travel Ads
UFC 127 Results
Royal Wedding

Best Music Scenes



The top 50 movie music scenes of all time.

Top News

- National News
- World News
- Science News
- Health News
- Weird News
- Entertainment News
- Politics News
- Business News
- Tech News

More News

- Fantasy Football
- NBA
- MMA
- NFL
- Stock Quotes
- Stock Market News
- Investing
- Personal Finance
- Small Business

What's Hot

- South by Southwest 2011 Lineup
- Mardi Gras 2011 Parade Schedule
- Ash Wednesday 2011
- What to Give Up for Lent
- Can You Eat Meat on Ash Wednesday?
- Mardi Gras 2011 Pictures

Newsmakers

- Barack Obama
- Sarah Palin
- Martin Sheen
- Glenn Beck
- Julian Assange
- Michael Woodmansee
- John Galliano
- Casey Anthony

[Good News](#)

[Movie News](#)

[Forbes Richest People in the World 2011](#)

Latest news, weather, health, business, sports, science, money, entertainment, world news, etc

Aol News.

[Terms of Use](#) | [Privacy Policy](#) | [Feedback](#)