

Wednesday, December 12, 2012 15:24:47 GMT

JAPAN

[Log In](#) [Register](#) [Subscribe Now](#)

PREVIOUS

日本リアルタイム
JAPAN REALTIME

NEXT

[Fukushima Watch](#)[Autos](#)[Economy & Business](#)[Technology](#)[Politics & Policy](#)[People](#)[Lifestyle & Culture](#)

May 21, 2012, 7:48 PM

[English](#) [日本語](#)

Fukushima Daiichi's Unit 4 Spent-Fuel Pool: Safe or Not?

Article

Comments (42)

[JAPAN REAL TIME HOME PAGE »](#)

By Phred Dvorak

Questions have been bubbling recently over how safe Japan's stricken Fukushima Daiichi nuclear plant—in particular the pool atop Unit 4, where some 1,535 fuel assemblies are stored—would be if another big earthquake hit.



Associated Press

The Unit 4 reactor building at Fukushima Daiichi in February

More In Nuclear

[Ishihara's Nuclear Backtrack a Policy Snafu for New Party?](#)[Fukushima Watch: Where to Draw the Evacuation Line?](#)[Fukushima Watch: The No-Nukes Minister](#)[Barriers Fail to Stop Japan's Anti-Nuclear Demonstrators](#)[Fukushima Watch: No Reactors, Fewer Jobs?](#)

Plant operator Tokyo Electric Power Co. has been taking steps recently to address that issue, and last month it invited legislator Ikko Nakatsuka, Japan's senior vice-minister for reconstruction, to check its work.

The bottom line: The steps Tepco has taken look fine, Mr. Nakatsuka said—as far as they go. Speaking to reporters Monday at the Foreign Correspondents' Club of Japan, Mr. Nakatsuka stayed determinedly away from making big-picture conclusions. And in the wake of last year's accident, he said, the government has learned there's no such thing as absolutely safe.

"When we say 'safe,' we have to say at what (risk) level," Mr. Nakatsuka said.

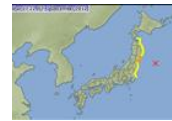
JRT readers may recall that Fukushima Daiichi's Unit 4 has been the subject of concern because at the time of the March 11 earthquake and tsunami last year the reactor was undergoing a major refurbishing, and its fuel rods were all in the spent-fuel pool for safekeeping. Some nuclear activists and concerned politicians, like U.S. Senator Ron Wyden, have been warning that if another big earthquake hits, the pool could collapse or leak, potentially releasing dangerous amounts of radiation.

On April 23, Tepco took Mr. Nakatsuka inside the reactor 4 building to look at the concrete-and-steel supports it had built under the spent-fuel pool. Then Mr. Nakatsuka went to the fifth floor to witness a test that showed the building—which suffered an explosion last year that blew off the roof and some of the upper walls—wasn't listing to one side.

Tepco analysis shows the building could survive forces equivalent to those that shook

Don't Miss

Powered by Taboola



Northeastern Japan Hit by 7.3-Magnitude Earthquake
05:36



Japan's Opposition Leader Seeks Changes in FX Policy
04:05



7.3 Magnitude Earthquake Shakes Northeastern Japan
00:45

About Japan Real Time

Japan Real Time is a newsy, concise guide to what works, what doesn't and why in the one-time poster child for Asian development, as it struggles to keep pace with faster-growing neighbors while competing with Europe for Michelin-rated restaurants. Drawing on the expertise of The Wall Street Journal and Dow Jones Newswires, the site provides an inside track on business, politics and lifestyle in Japan as it comes to terms with being overtaken by China as the world's second-biggest economy. You can contact the editors at japanrealtime@wsj.com

[Japan Real Time on Twitter](#)[Japan Real Time on Facebook](#)

Latest Stories from WSJ Asia

[Apple Tests TV Designs](#)[North Korea Launch Boosts Leader's Standing](#)[Secret Talks Behind Central Banks' Bets](#)[Risk Seen in Fed Bond Buying](#)[New Stores Boost Inditex Profit](#)

From Around the Web

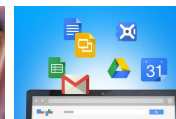
Powered by Taboola

Content from Sponsors



AETV

Duck Dynasty: The Wives of Duck Dynasty



TECH MEDIA

Google Discontinues Free Tier of Google Apps



HGTV

Sophisticated Bathroom Designs

the site during the March 11 quake, Mr. Nakatsuka said.

But just how big an earthquake could Unit 4 withstand before it collapses? That's one of many questions from reporters that Mr. Nakatsuka and the head of the Nuclear and Industrial Safety Agency's seismic safety unit evaded or wouldn't answer. Some others: What plans does the government have in case the pool does come down? What's the biggest risk at the plant now?

Asked whether he's satisfied with the safety checks Tepco has done so far, Mr. Nakatsuka answered, "I trust each one they've done." But he added that more steps might be in order—like picking up the pace of plant cleanup.

Corrections & Amplifications: *There are 1,535 fuel assemblies in the Unit 4 pool, each containing some 50 to 70-odd nuclear fuel rods. JRT incorrectly said earlier that there were 1,535 fuel rods.*

[Read this post in Japanese/日本語訳はこちら>>](#)

earthquake, Fukushima Daiichi, nuclear, nuclear safety, safety, tepco, tsunami, Unit 4

« PREVIOUS
Picture Japan: Solar Eclipse

NEXT »
Resona's Tortoise Global Banking Strategy

Japan Real Time HOME PAGE

Email

Print

You Might Like

Japan's Kobe Beef Bound for U.S.

Japan Feeling Friendly — Except Toward China, South Korea

U.S. Not Neutral About Japan, Armitage Told Beijing

Tears of Joy From Pyongyang's Most Famous Chef?

Election 2012: Female Assassins Now Target Political Mentor

Content from our Sponsors

What's this?

10 States Most at Risk Of Disaster
(Kiplinger)

7 Things You Didn't Know About Earthquakes (Reader's Digest)

Fukushima's Animals Were Left to Die After Earthquake, Tsunami Hit Japan (Petside.com)

What Sandy Is Teaching New York City That 9/11 Didn't (Bloomberg)

Top 10 Items for your Emergency Preparedness Kit (Top Ten Reviews)

Add a Comment

Name

We welcome thoughtful comments from readers. Please comply with our guidelines. Our blogs do not require the use of your real name.

Comment

CLEAR

POST

Comments (5 of 42)

[View all Comments »](#)

9:03 pm June 7, 2012

Brazil looking good wrote:

"A real nuclear worker" would no doubt know the true consequences of a ruptured pool, and also would likely never divulge the seriousness of the situation since doing so would be signing their own pink slip. This is akin to Obama telling us that the economy is picking up steadily. I respect your comments but cannot totally believe you would ever tell all that you truly feel inside.

12:08 pm May 27, 2012

Another Engineer wrote:

#3 was MOX (mixed oxide) which utilize spent fuel containing a portion of Plutonium.

As for the pool in #4, it may not be leaning, but the side of one of the wals was bulging outward over an inch, indicating there is structural damage. Concrete is a wonderful material in compression, but in tension it crumbles (hence the use of rebar). From what I understand, TEPCO put a pillar underneath the pool, to help support it, but I see no evidence of external support to the walls.

Buildings which suffer EQ damage are often structurally unsound. This means the next big quake could have unpredictable effects on the integrity of the building.

My guess is TEPCO is playing for time, to get the rods to the point where they would normally be able to be removed, typ 3 years or so, rather than aggressively pursuing a solution before a quake hits.

7:34 am May 27, 2012

NeoPatriot wrote:

Isn't reactor 4 is a MOX Plutonium reactor? Is it true that if the pool were to spill out the radiation release would over 80 times the radiation released at Chernobyl? Is it true that the Fukushima Daiichi site has already released more radiation than the Chernobyl disaster?

Today the Fukushima Daiichi site has the potential to cause the greatest disaster known to humanity and what is being done about it?

Clearly this disaster is a perfect illustration of the failure of our economic and governmental systems. The IAEA has covered up the extent of the disaster since Day 1. TEPCO, A private, for profit, utility company responsible for the disaster is still being allowed to make decisions which could directly effect all life on earth.

The reality is there should be no limit on the resources dedicated to solving this problem. A massive containment structure must be built and whatever steps necessary must be taken to ensure that future releases of radiation from Fukushima and all nuclear reactors is prevented.

Maybe an international, multi-trillion dollar project might even stimulate the economy while saving our lives but of course that's not going to happen. We need the money to start WW3.

4:29 am May 27, 2012

John Tucker wrote:

"In order for a cladding fire to occur the fuel must be recently discharged (about 10 to 180 days for a BWR and 30 to 250 days for a PWR)."

(<http://www.osti.gov/bridge/servlets/purl/6135335-5voofL/6135335.pdf>)

12:47 am May 26, 2012

Seriously concerned wrote:

Thanks for your explanation, a real nuclear worker. Unlike other posts that try to explain why the situation cannot be out of control, your comment has realism and states challenges. I do hope that Tepco will at least try to strengthen the structure to prevent further damages, considering the strong possibility of a devastating earthquake that may occur during this long period of making the plant less dangerous.



[Subscribe / Login](#) [Back to Top](#)

Customer Service Customer Center Contact Us WSJ Weekend Contact Directory Corrections	Policy Privacy Policy Data Policy Copyright Policy Subscriber Agreement & Terms of Use	Ads Your Ad Choices Advertise Advertise Locally Place a Classified Ad	Tools & Features Apps Newsletters Alerts Graphics & Photos Columns Topics Guides	More Register for Free Reprints E-books Content Partnerships Conferences SafeHouse
---	---	--	--	---