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What Foods Are Highest in Antioxidants? Some Inexpensive Foods Are Higher In Antioxidants than the Newest Pricey "Superfoods"

Posted by: George Washington

Post date: 04/14/2011 - 16:08

You don't have to break the bank buying some new fad "superfood" ... common and inexpensive foods can contain high amounts of antioxidants (which help fight disease and protect against radiation)

A U.S. Nuclear Accident Could Be a Lot Worse than Japan

Posted by: George Washington

Post date: 04/14/2011 - 15:21

Land of the Free, Home of the Zapped?

The 'How' of a Collapse Is Not Our Only Concern

Posted by: RickAckerman

Post date: 04/14/2011 - 12:35

Our recent discussion of whether deflation or hyperinflation will lay waste to the economy elicited hundreds of responses. Two of particular interest are featured below. The first, from blogger Charles Hugh Smith, explains why it may be impossible to know with any certainty which of the two forces will prevail. The second, the thoughts of a Wyoming rancher, suggests that in a crisis, we may discover that our need for protein trumps concerns over gold, silver, Treasury paper and the dollar.

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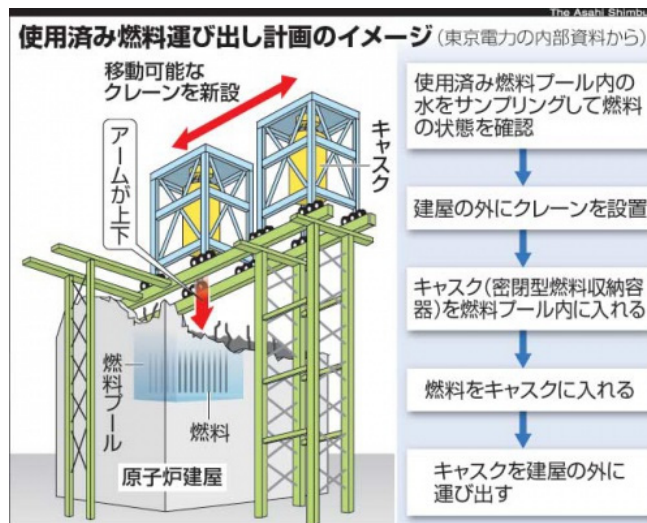
TEPCO Confirms Reactor 4 Spent Fuel Pool Is Now An Uncontrolled, Open Air Fission Process



Submitted by [Tyler Durden](#) on 04/13/2011 19:25 -0400

[Uranium](#)

It had been a while since we had a *factual* update (as opposed to just lies and spin) from Fukushima. Courtesy of [Kyodo](#), we now know that what was speculated by some as true, and rebutted by most as mere scaremongering, is in fact, fact. "Some of the spent nuclear fuel rods stored in the No. 4 reactor building of the crisis-hit Fukushima Daiichi power plant **were confirmed to be damaged, but most of them are believed to be in sound condition, plant operator Tokyo Electric Power Co. said Wednesday.**" Naturally, in one month we will learn that most of them are damaged, and in two months, that each and every one has been demolished. "The firm known as TEPCO said its analysis of a 400-milliliter water sample taken Tuesday from the No. 4 unit's spent nuclear fuel pool revealed the damage to some fuel rods in such a pool for the first time, as it detected higher-than-usual levels of radioactive iodine-131, cesium-134 and cesium-137." These confirm an ongoing fission reaction. In a tremendously ironic development, the No. 4 reactor, halted for a regular inspection before last month's earthquake and tsunami disaster, had all of its 1,331 spent fuel rods and 204 unused fuel rods stored in the pool for the maintenance work. Unfortunately, the entire pool ended up being damaged following the quake and the subsequent explosion, in essence nullifying any protection that the containment dome would have provided. As the picture from the Asahi Shimbun below shows, the damage from overhanging structures which have subsequently fallen into the fuel pool likely means that there could well be an uncontrolled, if weak, fission reaction currently going on in the reactor 4 SFP (where the water temperature is currently 90 degrees) unprotected by the elements due to the complete destruction of the Reactor 4 shell.



(picture via of [saposjoint](#))

More from [Kyodo](#):

The cooling period for 548 of the 1,331 rods was shorter than that for others and the volume of decay heat emitted from the fuel in the No. 4

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Latest News From RAN Squawk

- 04-15 04:17: Iran oil minister says the oil market situation is not extraordinary
- 04-15 04:13: Greek PM starts addressing Cabinet meeting on new fiscal measures
- 04-15 04:05: Option expiry seen in USD/JPY at 83.00 for the NY cut (1500 BST)
- 04-15 04:00: Italian Total Trade Balance (EUR) (Feb) M/M -3633mln vs. Prev. -6554mln (Rev. to -6599mln)
- 04-15 04:00: Norwegian Trade Balance (NOK) (Mar) 32.2bln vs. Exp. 30.8bln (Prev. 30.8bln)
- 04-15 03:57: Cheuvreux raises Cap Gemini (CAP FP) to selected list from outperform
- 04-15 03:51: Spanish PM Zapatero says China to invest in Spain debt and financial system
- 04-15 03:49: Euro-Zone debt concerns still prevalent this morning; Spanish/bund 10yr bond yield spread now trades 10.5BPS wider at 200BPS

Latest News From The Fly On The Wall

- 04-14 22:06: Week of 4/27 Fed Balance Sheet to be released at 16:30 ET
- 04-14 22:06: Week of 4/18 Money Supply to be released at 16:30 ET
- 04-14 21:34: Primerica 12M share Secondary priced at \$22.75

- China Financial Markets
- Chris Martenson's Blog
- Contrary Investor
- Coyote Blog
- Credit Writedowns
- Daily Capitalist
- Daneric's Elliott Waves
- DealBook
- Dealbreaker
- Dr. Housing Bubble
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- Jesse's Café Américain
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- The Market Ticker
- The Technical Take
- The Underground Investor
- Themis Trading
- Wall St. Cheat Sheet
- Washington's Blog
- Wealth.net
- When Genius Prevailed

unit pool is larger compared with pools at other reactor buildings.

According to TEPCO, radioactive iodine-131 amounting to 220 becquerels per cubic centimeter, cesium-134 of 88 becquerels and cesium-137 of 93 becquerels were detected in the pool water. **Those substances are generated by nuclear fission.**

The government's Nuclear and Industrial Safety Agency said the confirmed radioactive materials were up to 100,000 times higher than normal but that the higher readings may have also been caused by the pouring of rainwater containing much radioactivity or particles of radiation-emitting rubble in the pool.

The roof and the upper walls of the No. 4 reactor building have been blown away by a hydrogen explosion and damaged by fires since the disaster struck the plant. The water level in the spent fuel pool is believed to have temporarily dropped.

In the meantime the latest drywell readiation reading in Reactor 1 is still "out of commission"

福島第一原子力発電所 プラント運転パラメータ
4月13日 13:00現在

| 号機 | 1u | 2u | 3u | 4u | 5u | 6u |
|--------------|---|---|---|--|---------------------------------|---------------------------------|
| 注水状況 | 原子炉冷却系循環停止中、注水停止中 (4/13 12:00 以降) | 原子炉冷却系循環停止中、注水停止中 (4/13 12:00 以降) | 原子炉冷却系循環停止中、注水停止中 (4/13 12:00 以降) | 停止中 | 停止中 | 停止中 |
| 原子炉水位 | 監視値: 11000mm 監視値: 11650mm (4/13 12:00 現在) | 監視値: 11500mm 監視値: 11500mm (4/13 12:00 現在) | 監視値: 11700mm 監視値: 22000mm (4/13 12:10 現在) | 監視値: 23000mm (4/13 13:00 現在) | 監視値: 23000mm (4/13 13:00 現在) | 監視値: 23000mm (4/13 13:00 現在) |
| 原子炉圧力 | 0.42MPa g (A) 0.38MPa g (B) 異常 (4/13 12:00 現在) | 0.016MPa g (A) 異常 0.025MPa g (D) 異常 (4/13 12:00 現在) | 0.025MPa g (A) 異常 0.040MPa g (B) 異常 (4/13 12:10 現在) | 0.003MPa g (4/13 13:00 現在) | 0.016MPa g (4/13 13:00 現在) | 0.016MPa g (4/13 13:00 現在) |
| 原子炉温度 | (監視値/設定値/上限値/下限値) | | | | | |
| 原子炉炉心温度 | 監視値: 204.0°C 異常 設定値: 180.0°C (4/13 12:00 現在) | 監視値: 180.0°C 設定値: 180.0°C (4/13 12:00 現在) | 監視値: 192.2°C 異常 炉心温度下層監視: 117.3°C (4/13 12:10 現在) | 4u 原子炉炉心温度 監視値: 211.5°C 5,6u 原子炉炉心温度 監視値: 211.5°C | | |
| D/W - S/C 圧力 | D/W: 0.100MPa abs S/C: 0.100MPa abs (4/13 12:00 現在) | D/W: 0.025MPa abs S/C: 0.1 (4/13 12:00 現在) | D/W: 0.100MPa abs S/C: 0.107MPa abs (4/13 12:10 現在) | 監視値: 0.100MPa abs (4/13 12:10 現在) | | |
| CAMS | D/W: 0.100MPa abs S/C: 0.100MPa abs (4/13 12:00 現在) | D/W: 0.025MPa abs S/C: 0.100MPa abs (4/13 12:00 現在) | D/W: 0.100MPa abs S/C: 0.100MPa abs (4/13 12:10 現在) | | | |
| D/W 監視値 | 0.0384MPa g 0.0489MPa abs 0.427MPa g 0.0489MPa abs | 0.0384MPa g 0.0489MPa abs 0.427MPa g 0.0489MPa abs | 0.0384MPa g 0.0489MPa abs 0.427MPa g 0.0489MPa abs | | | |
| 炉内温度 | 監視値: 45.0°C (4/13 12:00 現在) | 監視値: 45.0°C (4/13 12:00 現在) | 監視値: 45.0°C (4/13 12:10 現在) | 監視値: 75.1°C (4/13 13:00 現在) | 監視値: 75.0°C (4/13 13:00 現在) | 監視値: 75.0°C (4/13 13:00 現在) |
| FFC 炉心温度 | 4500mm (4/13 12:00 現在) | 4500mm (4/13 12:00 現在) | 4500mm (4/13 12:10 現在) | 4850mm (4/13 12:10 現在) | 4850mm (4/13 12:10 現在) | 4850mm (4/13 12:10 現在) |
| 電圧 | 監視値/設定値/上限値/下限値 | | | | | |
| その他監視 | 監視値/設定値/上限値/下限値 | | | | | |

注: 監視値/設定値/上限値/下限値

(Source: METI)

And lastly, a demonstration from Fairewinds' Arnie Gunderson who shows how the Zircalloy uranium pellets mostly likely melted and shattered, possibly penetrating through the floor of reactors 2 and 3.

Nuclear engineer Arnie Gunderson demonstrates how Fukushima's fuel rods melted and shattered from Fairewinds Associates on Vimeo.

(h/t Robert Breen)

Your rating: None Average: 5 (14 votes)

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by Tyler Durden

on Wed, 04/13/2011 - 19:28
#1167152

shit -> fan

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by hambone

on Wed, 04/13/2011 - 19:31
#1167159

Hmmm....nothing matters til it matters. This melt down, Japan in general, energy costs, deficits, monetization, etc. don't matter...yet.

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by ZerOhead

on Wed, 04/13/2011 - 20:34
#1167338

They will.

And nothing is ever over until it's over... until the fat lady sings if you will.

As far as we know the Fukushima fat lady may not have even been born yet.

- 04-14 21:33: Graphic Packaging 47M share Secondary priced at \$4.75
- 04-14 21:33: Ellie Mae 7.5M share IPO priced at \$6.00
- 04-14 18:33: United Fire & Casualty sees Q1 catastrophe losses of \$10M
- 04-14 18:31: Majestic Capital announces delay in filing Form 10-K
- 04-14 18:05: Graco to host conference call

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Best to listen carefully to Arnie Gunderson if you really want to know how much we don't know. Unless of course you just don't wish to know.

Chances are you won't like this one bit...

<http://www.fairewinds.com/updates>

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by **hambone**

on **Wed, 04/13/2011 - 20:59**
[#1167422](#)

Once upon a time I was part of the matrix and believed in fairy tales.

Then I was rudely awoken and pulled into reality. Reality sucks but there is no going back to the old misconceptions. There also seems little chance of changing reality beyond self immolation or other radical action (likely to be marginalized).

Now I (we) wander among others whom I have little basic commonality of our understandings about the world in which we live.

The more I know it seems the more unhappy I am. The more unhappy I am the more I search for answers...which unfortunately only lead me to more unhappy answers.

How much more do we want to know...do we really want to know it is as fucked up as we think it is??? To what ends? If we are but pawns, only able to understand but not change the course of events...then what? Buy, sell, and live on the thin margin between the masses and those gathering inferences from those who know? What kind of a fucking country is this?

Every man for himself hugging his PM's and seed packs...what a world.

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by **ZerOhead**

on **Wed, 04/13/2011 - 21:03**
[#1167433](#)

I don't hug my PM's... however sometimes I do fondle them a bit.

So...

How about *400,000* likely cancer related deaths in a 200KM radius by extrapolating the Chernobyl numbers?

Crap almighty!... I sure hope this guy has been smoking something...

<http://www.youtube.com/watch?v=SOH-mtsdsqg>

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by **hambone**

on **Wed, 04/13/2011 - 21:09**
[#1167463](#)

Feel as if we (ZH) are voyeurs with a view to a crime(s) we are witnessing but no one cares, believes, or will act on the evidence we amass.

Knowing is good but then what...just cynically profit from the crimes (ie, Robo) so we can be among the ever smaller class of haves over the ever growing have nots?

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by **Julia**

on **Thu, 04/14/2011 - 03:17**
[#1168021](#)

There is no need to profit from it. I wouldn't even look for a trade on sad information such as this. It's not the point at all. But knowing the facts is important at times of such great uncertainty.

It sounds like you are on overload--what is actually known clinically as **ZH Depression**. At some point you just don't need to know more. You get too sucked into the negativity. You start to internalize too much of what you read and go into a negative feedback loop. Time to step away from the computer, hambone.

Give your nervous system a break. Watch a comedy, get out of the house, get some fresh air, and breathe. Chill out and realize that this blog does have side effects...some of which are not healthy.

I've been here a long time. I rarely comment. I often just read the headlines and don't read the content or comments at all. Other times I read every post there is. But I see you are getting to that ZH Depression state and believe me, many of us have

been there. Anyone with a year and a half under their belt here has taken their breaks or they are addicted to the anger that they feel when they learn more to justify their rage.

Find a balance.

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by A Man without Q...

on Thu, 04/14/2011 - 05:07
#1168066

The reason it makes us all depressed is because we are being led by psychopaths..

The aide said that guys like me were "in what we call the reality-based community," which he defined as people who "believe that solutions emerge from your judicious study of discernible reality." I nodded and murmured something about enlightenment principles and empiricism. He cut me off. "That's not the way the world really works anymore," he continued. "We're an empire now, and when we act, we create our own reality. And while you're studying that reality -- judiciously, as you will -- we'll act again, creating other new realities, which you can study too, and that's how things will sort out. We're history's actors . . . and you, all of you, will be left to just study what we do."

<http://www.nytimes.com/2004/10/17/magazine/17BUSH.html>

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by hambone

on Thu, 04/14/2011 - 15:05
#1169796

Noted - agreed - done.

Thanks and best to you

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by RockyRacoon

on Thu, 04/14/2011 - 00:08
#1167882

The human mind, like the proverbial vacuum, abhors a vacuum. When there is a dearth of knowledge we fill the gaps with what we already know, right or wrong. This leads to faulty thinking in some cases of those who didn't know much in the first place; and it leads to faulty conclusions by those who are simply obstinate. Oh, the humanity....

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by Stormdancer

on Thu, 04/14/2011 - 00:22
#1167899

well said.

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by Sock Puppet

on Thu, 04/14/2011 - 03:10
#1168019

Where is Trav7777, the comcast employee who moonlights as nuclear physicist and sais eevery thing will be just fine? It amazes me who much knowlege he has, or maybe we should start calling him Cliff Claven.

One Sock Puppet can always smell another one.

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by Howard_Beale

on Thu, 04/14/2011 - 03:38
#1168030

He gets paged far too much. Be grateful when he is in his cave.

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**I WILL
NOT
OBEY** **by chumbawamba**
on Thu, 04/14/2011 - 11:12
#1168813

The human mind, like the proverbial vacuum...

For sure, there are many vacuous minded people about.

I am Chumbawamba.

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by macholatte
on Thu, 04/14/2011 - 00:56
#1167939

The more I know it seems the more unhappy I am. The more unhappy I am the more I search for answers...which unfortunately only lead me to more unhappy answers.

Well said and a bullseye for your eloquent explanation as to why people love to watch Oprah, American Idol, Dancing with the Stars and especially sports. Escape into a fantasy and hide somewhere safe.

Every man builds his world in his own image. He has the power to choose, but no power to escape the necessity of choice.

Ayn Rand

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by Husk-Erzulie
on Thu, 04/14/2011 - 10:04
#1168547

Unjunk :-)

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by Maximus Failius
on Thu, 04/14/2011 - 08:59
#1168345

One we have breached the veil of reality what choice do we have but to travel further into the rabbit hole in search of answers? Once the veil is breached the "common" world becomes an alien environment filled with souls that physically resemble you but might as well be a different species. It would seem our choices are to sit in limbo between a greater understanding of reality and the alien world behind the veil, or we can attempt to come to a higher understanding of reality while taking the substantial risk that we may be left searching, never quite finding that higher understanding. It would seem to boil down to a classic choice of "chose your poison".

Ham

You put into words a question that i have been asking for years and never quite figured out how to phrase. It seems that higher understandaig may indeed be a Faustian bargian. For me this leads to the questions "what is the point" and "how does one define happiness when your family and friends exist in the same physical world but percieve a completely different experience from the same events".

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by RichardP
on Thu, 04/14/2011 - 12:37
#1169164

Not for nothing is there a cliché *ignorance is bliss*.

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by goldfish1
on Thu, 04/14/2011 - 09:14
#1168387

"We're an empire now, and when we act, we create our own reality. And while you're studying that reality -- judiciously, as you will -- we'll act again, creating other new realities..."

We create realities also. There are many more of us.

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by Landrew

on Wed, 04/13/2011 - 19:34
#1167164

Tyler, a personal thank you to you for creating a community of people who don't always agree, but, are active, passionate and great human beings!

I owe you more than I can say.

Andrew

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by mogul rider

on Wed, 04/13/2011 - 19:39
#1167184

then donate regularly as the costs are significant to them. We all contribute as often as possible. We may get pissed at each other but this community is vital to the survival of our species as almost every other source (Turd you're OK) of information is BS.

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by DollarMenu

on Wed, 04/13/2011 - 19:57
#1167245

I donate, but get no acknowledgment of receipt.

I hope the money goes beyond PayPal.

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by dark pools of soros

on Wed, 04/13/2011 - 21:08
#1167457

fuck paypal.. give me an address and I'll send some silver

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by reader2010

on Wed, 04/13/2011 - 22:07
#1167627

Or you can use Amazon Web Payments. Unlike Paypal, Amazon doesn't charge fees.

<https://payments.amazon.com/sd/ui/index.htm>

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by topcallingtroll

on Wed, 04/13/2011 - 20:23
#1167311

Interesting community for sure.

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by Confuchius

on Wed, 04/13/2011 - 20:36
#1167355

We all are indebted to Tyler et. al. for keeping us aware.

Useful reading is also found at:

<http://theoildrum.com>

They have a fukushima thread on their home page.

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by **destiny**
on *Wed, 04/13/2011 - 20:46*
#1167387

Check the CRIIRAD.ORG site, they've been warning on this right from the start. They have dealt with over a thousand dossiers since the creation of this body.

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by **ReeferMac**
on *Wed, 04/13/2011 - 19:41*
#1167193

LOL! Your writing is at times unparalleled Sir!

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by **MSimon**
on *Wed, 04/13/2011 - 19:47*
#1167211

I-131 is not at this point in time evidence of ongoing fission. Especially at the "low" levels noted. If there is still a significant level of I-131 in two months that would be evidence.

Half live of I-131 = 8.02 days. Ten half lives = a reduction of activity by a factor of 1024. Say 1,000 to make it easy. Twenty half lives (160 days roughly) = a reduction of activity by a factor of 1,048,576. A million is close enough.

Tyler. You should run your posts on this past a nuke to get the details right.

I'm a former US Naval Nuke Reactor Operator qualified. (unlike that idiot Carter).

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by **Cognitive Dissonance**
on *Wed, 04/13/2011 - 20:08*
#1167279

Tyler quoted Kyodo, "Japan's Leading News Network", who in turn quote TEPCO. So are you saying Tyler should have a professional and paid 'nuke' on retainer for the duration to confirm all news releases made by TEPCO and Kyodo? Because if he just uses a volunteer 'nuke' he is leaving himself open to other criticisms.

If you want a professional 'nuke' on retainer here at ZH I suggest you donate a few thousands bucks to ZH to help pay for the professional 'nuke' for a week. Otherwise you will just have to settle for the TEPCO experts and Japans' mainstream media outlets for fact checking.

TEPCO confirms damage to part of No. 4 unit's spent nuke fuel

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by **MSimon**
on *Wed, 04/13/2011 - 20:19*
#1167292

I'll work for free.

I wonder if being a former Naval Nuke Reactor Operator qualifies me as a professional?

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by **Gmpx**
on *Wed, 04/13/2011 - 20:31*
#1167342

Usually operators have little understanding. Car driver usually knows nothing about the car design - my mum for example.

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by **Stormdancer**
on *Thu, 04/14/2011 - 02:32*
#1168002

You haven't got a clue what training naval nukes get. I can assure you they get far more than just learning how to push the right buttons at the right time. Do a little studying on Adm. Hyman Rickover some time and you'll probably get a little insight on just how high the bar is in the naval nuclear program.

[Drupal e-commerce](#) provided by Ubercart.

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by **ZerOhead**

on **Wed, 04/13/2011 - 20:38**
[#1167363](#)

That's about what you'd be worth I fear.

BTW... how did your meltdowns turn out?

No insult intended... but if it's all the same to you I think I'll go with Arnie for the time being!

<http://www.fairewinds.com/updates>

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by **Stormdancer**

on **Wed, 04/13/2011 - 21:04**
[#1167449](#)

Arnie has been a breath of fresh air from day one and part of the reason for that is he's studiously avoided sensationalism. And over time he's been proven right in every materially important assertion he's made so far.

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by **Ident 7777 economy**

on **Wed, 04/13/2011 - 21:34**
[#1167555](#)

I'll work for free.

I'll take your input; ignore the clpwms and post away ...

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by **Stormdancer**

on **Wed, 04/13/2011 - 20:43**
[#1167382](#)

CD I am one who feels a great debt to ZH for the information, the analysis and insights I have never found anywhere else. But the Tylers are not perfect, they're human. A little fact checking in technical areas outside their normal expertise wouldn't hurt anything.

There are tens of thousands of people looking for factual information and understanding from which to make life or death real life decisions about what to eat and where to live.

Tepeco has (belatedly as always) confirmed fuel rods in SFP 4 are damaged. They haven't "confirmed" anything like the headline on this article suggests.

The assertion that things falling into the pool is somehow evidence of subsequent fission in the pool is false. It darned sure makes getting at those fuel assemblies for some kind of final disposition a lot harder...but it doesn't mean they somehow spontaneously went critical again.

Even the update betrays technical ignorance. "Zircalloy uranium pellets"? C'mon...we can do better than that. And for the sake of people who need to be able to base life changing decisions on real information we need to do better than that.

I'm not trying to minimize the seriousness of this whole mess. When Tyler writes "Shit -> fan" I'm in full agreement. But overstating is just as bad as Tepeco's continual lying and downplaying.

If I were in Tokyo I would be moving heaven and earth to get out. Not because I believe Tokyo is immediately dangerous, but because this is far from over and Tokyo just might become dangerous in the future if just a few things go wrong from here and the wind blows the wrong way. If there ever is a rush to get out of the Tokyo area and you're not gone already you probably won't get out at all. You just can't mobilize 30 million plus people at one time.

Just a few hours ago there was another 6.1 quake...luckily well over 100km from the plant. But that was followed by a 5.7, a 4.9 and a 5.2 just a few dozen km from the plant. None of those likely to severely affect the situation but certainly a reminder that the seismic situation is horribly unstable and we're just one unfortunately placed aftershock from a descent into true chaos with this whole thing.

Nevertheless, truth matters.

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by Cognitive Dissonance

on Wed, 04/13/2011 - 21:04
#1167442

I never said Tyler was perfect nor completely accurate. Just that he was quoting a news outlet and the nuclear operator itself. I also want correct information and at times I also find ZH articles to be a bit short on facts. But I'm not looking at a free volunteer organization such as ZH in the mouth. Contrary to what many people think about ZH I don't see evidence of many Tylers, at least not any more. And considering that Tyler puts out 12 to 20 articles each day 7 days a week I am amazed Tyler gets it right as often as he does.

As I said in the comment above exactly how do you expect Tyler to "fact check" information about the Fukushima disaster without engaging an expert? If he uses volunteers he is setting himself up for the same criticism as if he did it alone. This web site lives off donations and add revenue. Anyone who thinks Tyler is making money of an quantity off this site is wrong (in my opinion) so how is Tyler supposed to "fact check" these nuclear stories since it is out of his field? He shouldn't avoid the story because it clearly affects his expertise, the financial world.

Does he over reach at times? Yes. Should you expect him to be expert on the Fukushima story? No. I'm suggesting that we reel in our expectations a bit and understand the limitations Tyler is dealing with. ZH is not a one or two article a day blog. The ZH blog is prolific so if it gets it a bit wrong on subjects at times I'm not going to be angry. I get what I pay for and the last time I checked I pay nothing other than donations.

Just my opinion and there is no anger between us. I respect what you are saying.

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by Stormdancer

on Wed, 04/13/2011 - 21:21
#1167498

No anger here either CD and your points are well taken. I'm not angry with Tyler either...all the points you make are valid.

Still, I'll try to correct those isolated (and understandable) occasional errors.

I'd much rather have a bit of overstatement than the consistent lying, minimizing and obfuscation we've seen from those in charge until now. Panicking and leaving the area are much more sensible actions right now than sitting tight and trusting the government or Tepco to tell the truth in my opinion.

Still....truth matters :)

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by Stormdancer

on Wed, 04/13/2011 - 21:22
#1167499

doppelganger

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by samsara

on Wed, 04/13/2011 - 21:51
#1167593

"Just a few hours ago there was another 6.1 quake...luckily well over 100km from the plant..."

And just a little while ago **Nevada** has had a series of quakes just up the road a piece from **Yucca Mountain**(the empty site). Safe place for Centuries right?

Mag's were 4.4, 4.2 and a few 3.+

http://earthquake.usgs.gov/earthquakes/recenteqsww/Quakes/quakes_all.html

Also take a look at the Virgin Islands. SOMETHING is going to happen there I believe. (or somewhere close) They look like the run up to Japan's quakes.

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by Bicycle Repairman

on Wed, 04/13/2011 - 20:21
#1167306

"I'm a former US Naval Nuke Reactor Operator qualified."

Hi, have you been on site at Fukushima to collect data to make these judgments?

No? Well I'm a licensed OB/GYN and I wouldn't comment on your wife's patootie without examining it first.

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by **MSimon**

on **Wed, 04/13/2011 - 20:31**
[#1167334](#)

Well I'm glad to have an obgyn commenting on the subject. I'm sure you are much better qualified to comment on nuclear reactor accidents than I am.

All I can go by is the evidence given. Same as Tyler. However the "news" people in Japan have no clue on interpreting the evidence they are given. Evidently they do not have a nuke on staff. By evidence of course I do not mean "words". I go for the numbahs.

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by **Gmpx**

on **Wed, 04/13/2011 - 20:36**
[#1167362](#)

Whatever they say is to calm people down. The truth is unimaginable.

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by **Bicycle Repairman**

on **Wed, 04/13/2011 - 21:16**
[#1167484](#)

"Well I'm glad to have an obgyn commenting on the subject. I'm sure you are much better qualified to comment on nuclear reactor accidents than I am."

Since neither of us has any first hand data or any experience with a category 7 nuclear disaster a OB/Gyn is as good as anything. If it makes you feel better, your comments are just as pertinent as those from TEPCO's upper management.

Here's something we can both feel comfortable commenting on: cesium 137 is not good for your wife's patootie.

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by **MSimon**

on **Wed, 04/13/2011 - 20:21**
[#1167313](#)

Some one deleted my dup post - it wasn't me. Maybe Tyler is paying attention.

If so - good on ya mate.

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by **destiny**

on **Wed, 04/13/2011 - 20:51**
[#1167407](#)

Check the CRIIRAD.ORG info, at least it is an independant Lab on radioactive research and information operating away from the nuke lobby. They publish real facts. Fact is, no gvt is willing to provide REAL data...

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by **Confuchius**

on **Wed, 04/13/2011 - 20:43**
[#1167378](#)

@msimon

Perhaps you are unaware, due to your overeducation in these matters, that the heat source in fukushima's fragmented reactors is from fission.

If you disagree, then you are suggesting the heat is from fusion.

The fission will continue virtually in perpetuity, at an ever reduced rate.

The farms around fukushima will no doubt produce edible produce once more beginning in 2387 AD.

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by **Ident 7777 economy**

on **Wed, 04/13/2011 - 21:40**
#1167571

that the heat source in fukushima's fragmented reactors is from fission.

... how *wrong* can you can be ...

A) We're talking the (spent) fuel pond here in #4 building

B) After Uranium 'fissioning', there are 'products' that continue to produce heat that must be removed ... ALL THIS HAS BEEN COVERED.

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by **malikai**

on **Wed, 04/13/2011 - 20:43**
#1167384

Xenon or Krypton would be definitive proof. Iodine decays too slowly to categorically say that fission is ongoing yet. I agree with MSimon. These posts should be proofed for technical accuracy.

There are too many people here who believe everything they read. If it is wrong, you risk misleading people and damaging your credibility.

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by **destiny**

on **Wed, 04/13/2011 - 20:52**
#1167413

+1

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by **The Profit Prophet**

on **Wed, 04/13/2011 - 21:30**
#1167546

To junk or not to junk....that is the question.

"There are too many people here who believe everything they read.".....now I know you're not stupid...so what's with this completely dis factual statement????!! Most of the people on this site, are on this site for the very reason that they **don't** believe everyting they read...including almost everything printed by the MSM.

Proper analysis speaks for itself. You have been place on the DJ watch list.

T.E.I.N. everyone!

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by **malikai**

on **Wed, 04/13/2011 - 21:42**
#1167575

See the post directly below this one.

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by **RockyRacoon**

on **Thu, 04/14/2011 - 00:13**
#1167891

I don't believe any o' you sonsabitches. Tyler neither!

I'm here for the Fight Club appetizers.

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by **palmereldritch**

on **Thu, 04/14/2011 - 00:48**
#1167932

You were probably the goomer that got into my greenbin last week

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by **jus_lite_reading**



on Wed, 04/13/2011 - 21:21
#1167478

MSimon I'm not a US naval Nuke operator but I know more than you. Such high levels of Iodine 131 one month out is evidence enough. We should have seen decreasing amounts to less than 20 becquerels/ccm not in the hundreds. Worse still would should be seeing such high levels of Cesium 134 and 137. And IF THATS NOT ENOUGH MR SMART GUY then explain the STRONTIUM that is being detected!

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by malikai
on Wed, 04/13/2011 - 21:38
#1167568

Please try to form coherent sentences next time. It might also be useful to try spell checking your posts before you hit the save button. Finally, it might be a good idea to do a bit of research on the subject before self-declaring your mastery of nuclear physics. Your strontium comment definitely shows your lack of knowledge. The caesium comment is just flat unintelligible.

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by bob_dabolina
on Wed, 04/13/2011 - 21:59
#1167608

Tellurium + Neutron beams confirms it in my book.

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by Cistercian
on Wed, 04/13/2011 - 22:33
#1167698

Wrong Bob.The blue flashes are a kind of ball lightning or merely reflections of the planet Venus.Venus is often mistaken for rogue nuclear fission.

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by Ransom

on Wed, 04/13/2011 - 23:31
#1167837

Venus is often mistaken for rogue nuclear fission.

+1

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by palmereldritch
on Thu, 04/14/2011 - 00:54
#1167937

SwamPu Gas

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by malikai
on Thu, 04/14/2011 - 05:04
#1168064

Incorrect, Cistercian. The blue flashes are smurfs having sex. They're attempting to reproduce rapidly in the hot, radioactive environment of the reactors and SFPs. Studies have statistically shown that smurfs reproduce much faster in the presence of high radiation.

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by knuckles
on Thu, 04/14/2011 - 00:07
#1167885

"detected **higher-than-usual** levels of radioactive iodine-131, cesium-134 and cesium-137"

Now, who was it that said it was nice that we weren't being pissed on anymore?

Higher-than-usual

Jesus H Fucking Christ on a Crutch.
I give up.

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by **Bendromeda Strain**

on **Thu, 04/14/2011 - 10:07**
#1168557

Tellurium + Neutron beams confirms it in my book.

Well, yeah. Except that we're talking about Reactor 4, not Reactor 1.
If it is too hard, make a scorecard to keep track.

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by **butsurigakusha**

on **Wed, 04/13/2011 - 22:29**
#1167688

Good to see some real physics-based numbers quoted.

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by **patb**

on **Wed, 04/13/2011 - 23:56**
#1167869

"According to TEPCO, radioactive iodine-131 amounting to 220 becquerels per cubic centimeter, cesium-134 of 88 becquerels and cesium-137 of 93 becquerels were detected in the pool water. Those substances are generated by nuclear fission."

http://en.wikipedia.org/wiki/Fukushima_I_nuclear_accidents#Reactor_unit_4

"At the time of the earthquake unit 4 had been shut down for a scheduled periodic inspection since 30 November 2010."

So MSimon, So November 30 to April 13 is 4 Months and 13 days, or 134 days, divide by 8.02 = 16.7 Halfives.

2**16 is 106,000 Multiplied into the current intensity of 220 Becquerels gives me 23,421,980 Becquerels/CC

so somewhere between 23-24Million Becquerels per CC.

Now I'm no Naval Reactor Technician but, do you think this is Plausible?

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by **MSimon**

on **Thu, 04/14/2011 - 06:52**
#1168108

Unfortunately they don't give a standard deviation with the measurement. They don't say how the measurement might be contaminated with other species.

From the evidence I saw initially I thought there was recriticality in #1. So I'm not adverse to making such a judgment. I'm not ready to say that for pool #4. If there was evidence besides I-131 for pool #4 I would make that judgment. In the mean time I'm going to wait.

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by **patb**

on **Wed, 04/13/2011 - 23:56**
#1167872

"If there is still a significant level of I-131 in two months that would be evidence."

In two months, there won't be anything left to worry about, but a few desperate survivors fighting over the remnants of our society and evading 30 foot tall cockroaches

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by **d_senti**

on **Thu, 04/14/2011 - 03:01**
#1168015

Uh, 220 megabecquerels/m³ is low? I'm honestly asking, because I wonder if maybe you misread it, as it was in cubic centimeters. Seems obscenely high to me, especially when you reverse calculate the half life. I-131 would have gone through 4 half lives by now, meaning if it were not an ongoing release, the initial amount in the water would be 8 times this level.

That's a crapton of I-131.

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by **chungal**

on **Wed, 04/13/2011 - 19:50**
#1167235

Yankees 3 - Orioles 0. Bottom of the second inning. Stay focused.

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by **Pale Green Pants**

on **Wed, 04/13/2011 - 22:22**
#1167669

"there could well be an uncontrolled, if weak, fission reaction currently going on in the reactor 4 SFP (where the water temperature is currently 90 degrees)"

90 degrees Fahrenheit? Celsius ? Kelvin? kinda makes a difference...

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by **patb**

on **Thu, 04/14/2011 - 00:26**
#1167908

japanese always work in Celsius

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by **Armchair Bear**

on **Thu, 04/14/2011 - 14:44**
#1169704

three people have junked this?

we are in deep doo-doo folks. anyone who cannot see it is not paying attention. I have listened to EVERYONE I sounded the alarm in in mid-March about this being worse than Chernobyl.

They are still in total denial. This is the game changer.

Do you think you will EVER get any honest reporting from the MSM stating "folks, time to batten down the hatches, the SHIT has officially HIT the FAN"?

HELL NO!!

Thanks Tyler. This is a sad day for our beautiful earth. It has been like this for me ever since March 12... It was obvious to me that a coverup for the mismanagement of this deal would be even worse than the GOM disaster.

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by **Dane Bramage**

on **Wed, 04/13/2011 - 20:02**
#1167268

The *opposite* of fault-tolerance isn't working out so well in Fukushima. That is, storing all your 20+ years worth of extremely toxic radioactive eggs in one basket, a basket that needs to hold water to be effective, but is made of concrete (known to crack), above ground, above the reactors and in an earthquake+tsunami zone has, shockingly, experienced epic failure.

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by **Bicycle Repairman**
on **Wed, 04/13/2011 - 20:21**
#1167314

Nobody could have seen this coming.

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by **New Survivalist**
on **Wed, 04/13/2011 - 20:21**
#1167300

Lazy much, loser? Why even bother capitalizing his name. You must be so important you don't have time for a well-written sentence.

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by **coddiddly**
on **Wed, 04/13/2011 - 20:43**
#1167371

edit

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by **jus_lite_reading**
on **Wed, 04/13/2011 - 21:15**
#1167469

Mr. truthiness- Go screw. You owe TD more than youre worth and youre getting junked outta here.

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by **mick_richfield**
on **Wed, 04/13/2011 - 21:29**
#1167539

huh? poorly thought-out comment, truthiness. which part didn't you understand?

junk.

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by **patb**
on **Wed, 04/13/2011 - 19:26**
#1167145

Most likely the Cranes when they fell punhed a hole in the spent fuel pool, which is why they can't hold water.

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by **Life of Illusion**
on **Wed, 04/13/2011 - 19:29**
#1167150

<http://www.bloomberg.com/news/2011-04-13/hitachi-ge-file-proposal-to-scrap-fukushima-dai-ichi-plant.html>

Hitachi Ltd. and General Electric Co. submitted a plan to dismantle the crippled Fukushima Dai-Ichi plant they helped build, seen in this handout photograph on Thursday, March 31, 2011, as Japanese engineers battle to contain the worst nuclear crisis since Chernobyl. Source: Japan Ministry of Defense via Bloomberg

Hitachi Ltd. (6501) and General Electric Co. (GE) submitted a plan to dismantle the crippled Fukushima Dai- Ichi plant they helped build as Japanese engineers battle to contain the worst nuclear crisis since Chernobyl. The proposal, which also involves Exelon Corp. (EXC) and Bechtel Corp., was submitted April 8, said Yuichi Izumisawa, a Tokyo- based spokesman at Hitachi, Japan's second-largest maker of nuclear reactors. He declined to specify details of the plan. The Hitachi-led proposal will vie against plans from groups led by Toshiba Corp. (6502) and Areva SA (CEI) as Tokyo Electric Power Co. begins preparing to clean up a nuclear disaster that's led to the evacuation of hundreds of thousands of inhabitants.

Decommissioning the reactors may take three decades and cost more than 1 trillion yen (\$12 billion) to complete, engineers and analysts say. "It's unclear how much the contract will be worth but it's going to be a large amount given it would take decades to complete," said Yuichi Ishida, a Tokyo-based analyst at Mizuho Investors Securities Co. "This isn't an ordinary dismantling." Hitachi rose 0.3 percent to 401 yen at the midday break in Tokyo trading. The benchmark Nikkei 225 Stock Average declined 0.1 percent. Rival Groups Toshiba's group, which

includes Babcock & Wilcox Co. (BWC) and Shaw Group Inc. (SHAW), submitted a plan on April 4 that **would take 10 years or more to complete**, spokesman Keisuke Ohmori said last week. Toshiba's Westinghouse Electric Co., Babcock & Wilcox and Shaw were involved in the decommissioning of the Three Mile Island plant, he said. Toshiba, Japan's largest maker of nuclear reactors, also helped build the Fukushima reactors. Areva, the world's biggest maker of nuclear reactors, plans to submit a proposal, Jacques Besnainou, chief executive of the Paris-based company's U.S. subsidiary, said this week. Hitachi's U.S. partners were also involved in the cleanup work at Three Mile Island and the 1986 Chernobyl incident, the company said yesterday. At Pennsylvania's Three Mile Island in 1979, one reactor partially melted in the worst U.S. accident, taking \$973 million to repair and almost 12 years to clean up, according to a report on the World Nuclear Association's website. More than 1,000 workers were involved in designing and conducting the cleanup operation, the report said.

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by **tiger7905**

on **Wed, 04/13/2011 - 20:12**
[#1167285](#)

Latest from Arnie at Fairewinds.

Link to review of how far off they were during 3 mile Island...

<http://goldandsilverlinings.com/?p=616>

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by **ihedgemyhedges**

on **Wed, 04/13/2011 - 19:30**
[#1167154](#)

Just curious, but where the hades is Al Gore(bachev) on all this??? I mean, doesn't fission have an effect on greenhouse gasses?????

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by **mogul rider**

on **Wed, 04/13/2011 - 19:41**
[#1167190](#)

getting his green trading empire up and running, costs thousands to make billions

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by **Bicycle Repairman**

on **Wed, 04/13/2011 - 19:53**
[#1167237](#)

Al Gore was also absent for GOM along with all the major eco-organization-frauds. Although nuclear radiation is not good for the environment, stopping it does not empower Al Gore and his friends. Quite the opposite.

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by **esprit**

on **Wed, 04/13/2011 - 20:14**
[#1167288](#)

Global warming doesn't fit well with nuclear winter, does it AI?

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by **Confuchius**

on **Wed, 04/13/2011 - 20:52**
[#1167402](#)

You might do a bit of studying on the subject of "greenhouse gasses"

There is only one of consequence: it is called water vapour.

Simply cover all the oceans and lakes with plastic film and voila! no greenhouse gasses.

Oh. And the planet will look just like Mars when you are finished.

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by **Urban Redneck**

on **Thu, 04/14/2011 - 04:41**
[#1168059](#)

Water vapor is orders of magnitude more critical than carbon dioxide as its spectroscopic absorption spectra peaks from 4-7 microns whereas carbon dioxide does not have any peaks above 4.5 microns.

Proportionality argues for another - Nitrogen

Nitrogen's absorption spectra (greenhouse characteristic) is remarkably similar to carbon dioxide's (peaking under 5 microns) but it is 2×10^3 times more prevalent in the atmosphere.

So if you were to increase or reduce the concentration of carbon dioxide by a factor of 10, the effect on temperature would be the same changing the concentration of Nitrogen by 1/2 of 1%.

That is like saying buying a single silver coin from the pawnshop will have the same impact on global silver prices as the average JPM silver transaction.

However, reducing the level of carbon dioxide by even 50% is inadvisable, unless one seeks a crop failure whose impact is measured on a scale of global genocide that exceeds anything witnessed in the 20th century.

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by **samsara**

on **Wed, 04/13/2011 - 21:37**
[#1167562](#)

I think he's settling in at his ranch down in Paraguay, Waiting for his neighbor GW et al to arrive sometime this year when the SHTF.

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by **palmereldritch**

on **Thu, 04/14/2011 - 00:57**
[#1167943](#)

Gore is tweaking things...getting ready to launch the new Carbon 14 Tax

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by **Landrew**

on **Wed, 04/13/2011 - 19:33**
[#1167155](#)

I want to say thanks to all ZH'ers for getting my video into the hands of students in Japan. A number of letters are coming in and your effort is amazing thanks.

<http://www.youtube.com/watch?v=G6Q7VfWdgEg>

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by **fuu**

on **Wed, 04/13/2011 - 21:06**
[#1167450](#)

Glad to know it got around. Thank you for your time!

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by **bob_dabolina**

on **Wed, 04/13/2011 - 19:36**
[#1167161](#)

I'd like more factual information on the isotopes. Of all the really malevolent fission products being expelled it is my understanding that Iodine/Cesium/Caesium are the more benign compared to the things like Strontium/Plutonium/Tellurium etc.

I want more information on the products that can really fuck your world up which I feel is something being suppressed. If I/C/C are being found here in the states why can't S/P/T also be blowing over here? I think it is a more of a concern for Japan but if we are getting plutonium flurries, I certainly would like to be advised.

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by **ihedgemyhedges**

on **Wed, 04/13/2011 - 19:38**
[#1167173](#)

"I think it is a more of a concern for Japan but if we are getting plutonium flurries, I certainly would like to be advised."

Just pretend it's snow and make a snowman.....

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by **Landrew**

on **Wed, 04/13/2011 - 19:38**
[#1167179](#)

Cesium 137 and Strontium 90 are beta emitters with 24k yrs. half life. Plutonium is a Alpha emitter and you don't want to know the half life:) When you have a full blown

nuclear melt-down you can get very rare elements with some half lives of less than a minute. Of course you need the right target sources to tack on the neutrons:)

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by **slewie the pi-rat**

on **Wed, 04/13/2011 - 20:10**
[#1167280](#)

hard to imagine why the junk. this is true, i think. because of the nature of the fuel/spent fuel, it seems the Ce-137 is the real joker in the deck. just off-the-chart amounts of this stuff, and it isn't cool in the food chain. not for decades. shit! this is very bad news, in spite of all the "dilution" theories counselling not to worry. this stuff hurts life and people. and it's really really coming outs fuk_u, bigtime! imo.

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by **Drag Racer**

on **Thu, 04/14/2011 - 04:01**
[#1168040](#)

High radioactivity detected in fish, vegetables

http://www3.nhk.or.jp/daily/english/14_03.html?play

Fishing group cancels sea urchin, abalone catch

http://www3.nhk.or.jp/daily/english/14_04.html?play

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by **anonnn**

on **Wed, 04/13/2011 - 21:42**
[#1167557](#)

fyi--

Strontium-90 [half-life 29 yrs] decays to yttrium-90 [half-life 64 hrs]

Health effects --- [1] Sr-90 mimics Calcium and thus rapidly taken-up and concentrated by bone demand,etc and [2] the Yttrium exacerbates damage bec it releases high-energy beta [v. lo-energy Sr. beta].

Note: both red and white blood cells produced by bone-marrow. Irradiated-marrow result is weakening of overall immune system, long and short term. TEPCO et al want to avoid discussion of Sr and Plutonium releases.

Dr. Ernest Sternglass did clasic fallout studies that make a fascinating and valuable read.

Also noteworthy---Pu is long life alpha-particle emitter. Of course, the popuar story is that alphas will not penetrate a thin sheet of paper and thus relatively harmless.. The unpoplar story is that the popular story applies only to **external** radiation; taken **internally**, breathed or ingested, etc those cute alphas are rather deadly...and hardly detectable from outside the body.

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by **d_senti**

on **Thu, 04/14/2011 - 03:17**
[#1168023](#)

hard to imagine the junk...uh, maybe because the info is wrong? Cesium 137 has a half life of 30 years, not 24k. Sr-90 is 29 years.

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by **esprit**

on **Wed, 04/13/2011 - 20:24**
[#1167318](#)

No problem with Caesium-137, as long as you get the right dose. Irradiates food and preserves, like forever.

<http://en.wikipedia.org/wiki/Caesium-137>

sarc on/off, I forget which.

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by **FilthyLucre**

on **Wed, 04/13/2011 - 20:39**
[#1167373](#)

I131 will increase your chances of thyroid cancer - but it has both a short radiological and biological half life so the exposure period is brief - unless of course the source is not contained and you are subjected to ongoing exposure. It is an alpha emitter and only causes localised cell damage.

Cs137 (and other Caesium isotopes) will increase your chances of all sorts cancers as it is deposited throughout the body - organs and muscles are the major places. It has a long half life and reasonably long biological half life - prussian blue can help to dispell it from the intestines but isn't a panacea. It is a gamma emitter and will cause cell and chromosome damage everywhere.

Sr90 (and other Strontium isotopes) will replace Calcium in your body and accumulate in your bones. It is a beta emitter and will damage bone marrow. It has a long biological and reasonably long radiological half life.

I131 and Cs137 can in no way be viewed as benign. The resolution rates for thyroid cancer are high, but do you really want to test this? The outcomes for the range of cancers caused by Cs137 not so good.

Isotopes of heavier elements such as Pu will not show the same rates of airborne dispersal as I131 and any heavy concentrations will likely be limited to local fallout. Dispersal of these heavier elements through the oceans should also be somewhat localised.

If you ingest a small amount of I131 which results in you developing thyroid cancer and your outcome is bad - ie you die. Then **your** world is pretty much fucked up. Its all about statistical outcomes - if you are the statistic, then you are dead.

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by **americanspirit**

on **Wed, 04/13/2011 - 19:36**
[#1167167](#)

glow little glow worm, glimmer, glimmer
 life is an incandescent shimmer
 when you gotta glow, you gotta glow
 So glow Fukushima, glow (and blow)

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by **FunkyMonkeyBoy**

on **Wed, 04/13/2011 - 19:36**
[#1167168](#)

Does this have the same electric atmosphere as a good Open Air Concert? Can we expect a 5 minute solo?

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by **Dr. Porkchop**

on **Wed, 04/13/2011 - 19:41**
[#1167181](#)

Better than Zeppelin!

Black Swan

Hey hey mama Fukushima blew,
 Gonna make you dead, gonna make you puke....

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by **Bicycle Repairman**

on **Wed, 04/13/2011 - 19:55**
[#1167242](#)

Free bird!

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by **Lord Wellington**

on **Wed, 04/13/2011 - 19:37**
[#1167171](#)

Oh Shit.

"TEPCO Confirms Reactor 4 Spent Fuel Pool Is Now An Uncontrolled"

So trav7777 will say this is not "bad" news.

We always knew this was the case.

Look at the facts. Then let me persuade you that you are safe.

It's what sociopaths do.

Ignore the headline.

Ignore the man behind the curtain.

Everything is oki doki.

We have the information.

Go back to sleep.

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by **Stormdancer**

on **Wed, 04/13/2011 - 19:46**
[#1167218](#)

I can't find anywhere Tepco has "admitted" anything like 4's SFP becoming an "open air reactor".

They've apparently admitted damaged fuel rods...belatedly of course...that was pretty well established a long time ago. But, that's a far cry from active, ongoing fission reactions. Damaged fuel rods and the threat of further overheating and burning down even more of the fuel rods is horrific in and of itself. If SFP 4 does descend in to new instances of fission we'll know it....and quick.

This is plenty serious without the exaggeration. You've been Sapo'd on this one Tyler. Take the time to read around a bit in Ivar's forum/blog and you'll see what I mean.

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by **Lord Wellington**

on **Wed, 04/13/2011 - 20:14**
[#1167289](#)

"I can't find anywhere Tepco has "admitted" anything like 4's SFP becoming an "open air reactor"."

I can't find anywhere that Tyler said that.

What I find is that Tyler's strapline was "Open Air Reaction".

A difference in language.

Or perhaps you also think everything is oki doki.

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by **Stormdancer**

on **Wed, 04/13/2011 - 20:49**
[#1167400](#)

No, I don't think everything is oki doki and I think the language in the title is pretty obvious....and obviously incorrect.

Striving for accuracy isn't minimizing.

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by **Bicycle Repairman**

on **Wed, 04/13/2011 - 20:18**
[#1167297](#)

"If SFP 4 does descend in to new instances of fission we'll know it....and quick."

How will we know? A report from NHK or BBC? Perhaps people's hair falling out?

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by **Stormdancer**

on **Wed, 04/13/2011 - 20:52**
[#1167415](#)

No, the voluminous column of smoke and steam rising above a completely evacuated complex will undeniably tell the tale. There will be no way to hide it.

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by **Bicycle Repairman**

on **Wed, 04/13/2011 - 21:02**
[#1167444](#)

Steam? Is there still water in there? Suppose there isn't?

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by **Stormdancer**

on **Wed, 04/13/2011 - 21:27**
[#1167529](#)

Well, with all the lying to date I suppose that's possible. But, it would mean Tepco's lying has ascended to a new level since they just claimed they pulled a 400 ml water sample from that pool.

And it's a moot point anyway. If SFP 4 went critical the smoke would

probably be quite substantial all by itself even if little steam was present.

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by **Bicycle Repairman**

on **Wed, 04/13/2011 - 22:24**
[#1167677](#)

#1 went critical, I believe. I don't remember a column of tall column of smoke arising from it.

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by **Stormdancer**

on **Wed, 04/13/2011 - 22:46**
[#1167727](#)

Yes, and those instances of fission occurred inside substantially intact containment. SFP's are a very different circumstance.

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by **Bicycle Repairman**

on **Thu, 04/14/2011 - 08:35**
[#1168264](#)

"SFP's are a very different circumstance."

Agreed. There is no containment for the SFPs.

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by **slewie the pi-rat**

on **Wed, 04/13/2011 - 20:21**
[#1167304](#)

Stormdancer: sorry, but the fact that you can't find something or understand the poss nature(s)/amount of fission and the vaporization of the poisons, does not make tyler wrong. people on zH have been commenting about the evidence of fission in #4 since the roof blew off. really. very tentatively, at first, with many people warning about jumping to conclusions, logically, given the "facts" as we knew them.

more and more, the evidence and facts pointed to fission. and we still don't know exactly what kind, or why, but there is quite a bit of fission in 4. i would say that your words: "ongoing fission reactions" is the best description of the reality there, too.

even tho you seem to believe only in the impossibility of same.

keep with it, ok? so will tyler & slewie.

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by **Stormdancer**

on **Wed, 04/13/2011 - 20:59**
[#1167428](#)

You are privy to info I haven't seen. There has been substantial evidence that something has gone critical in one of the loaded reactors. I haven't seen any credible evidence of criticality in SFP 4.

There is a huge difference between burning fuel rods and criticality. Either one is horrible. More of both is possible. But stick with the facts.

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by **samsara**

on **Wed, 04/13/2011 - 21:32**
[#1167542](#)

I haven't seen any credible evidence of criticality in SFP 4.

The point is SD, that from the track record of the last month, Many of us believe that MANY MANY will DIE withOUT Ever getting 'Credible Evidence' that they are dying.

Radiation doesn't really really give a shit whether 'YOU' have credible evidence or not.

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by **slewie the pi-rat**



on **Wed, 04/13/2011 - 21:41**
[#1167574](#)

well, again, i haven't seen you here too much for the last 4.5 weeks, either, but i might have missed your inputs, too, ok? but, you're sure here, now!

you question me on the facts. the facts are not in dispute, are they? tyler and i agree that the SFP went zircalloy melt, and you say: "There is a huge difference between burning fuel rods and criticality."

basically, as i said, many here felt the same way about two weeks ago. not any more. tyler gives the correct data for what the hell is/was in that SFP #4. it went melt. and started to intermittently fission, quite briefly, non-sustainable, in the mess, but overall, quite a bit of small chain reactions.

you're from missouri. you can't believe that $2 + 2 = 4$, you actually must count it, or have someone else tell you this is objective. i don't care. tyler's thesis explains much more than yours, imo. you want "facts" but what we are saying is look at that building. there was NO fuel in the reactor core. only in the SFP. shit, man, think!!!

thanks for yer input, too! peace.

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by **Stormdancer**

on **Wed, 04/13/2011 - 22:21**
[#1167649](#)

You don't seem to be able to discern the difference between "going melt" and "going critical". Which is fine. It's a serious situation with plenty of potential for getting much more serious.

Again, there is substantial evidence indicating reactor 1 or 2 or both have gone critical since the whole thing started. No evidence that I know of that SFP 4 has done so.

Reactor 2 has a blown torus...known for a good while now. A "core on the floor" scenario is pretty likely in reactor 1 and quite possible for 2 or 3.

I wouldn't want to be anywhere in Japan right now because of the open ended nature of this thing. Tokyo is going to be 24hrs away from disaster for a very long time depending on subsequent developments and wind direction. Not a good place to be.

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by **slewie the pi-rat**

on **Thu, 04/14/2011 - 02:22**
[#1167994](#)

well, perhaps i wasn't clear. i don't want to **seem** like i don't understand something. there's a shitload slewie doesn't understand. what i do understand is this: there was no coolant in this SFP for quite some time. the cladding freaking melted. the hydrogen explosion from the zircalloy melt blew the freaking building to smithereens. then we started getting chain and criticality. i may be totally fuking wrong. happens more often than i'd care to admit, ok? but if you can't understand me, don't blame me, ok?

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by **MSimon**

on **Thu, 04/14/2011 - 08:09**
[#1168211](#)

Assuming you are talking about the SFPs this is where you went wrong:

then we started getting chain and criticality.

The only criticality I would bet on is reactor #1. It is possible that any of the SFP could go critical. But at this point I don't think they have.

Let me add that **stormdancer** knows his nuclear. And thank you **storm** for the atta boy above.

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by **MSimon**

on **Wed, 04/13/2011 - 21:15**
[#1167479](#)

Fission products are not evidence of CURRENT fission. Unless the half lives are on the order of a few hours or less. I have yet to read a report about I-131 being evidence of fission in pool #4. The closest to that was the DIFFERENTIAL amounts

of I-131 in reactor #1 vs #2 & #3.

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by **mick_richfield**

on **Wed, 04/13/2011 - 21:42**
[#1167579](#)

I think there was a recriticality inside #1 last Thursday after the 7.2 earthquake.

Shortly after the earthquake, the radiation levels inside #1 exceeded 100 Sv / hr, and temperature rose. Then the radiation sensor became unresponsive -- or they shut it off, or quit reporting on it for a while.

Then, on Saturday and Sunday, Cesium deposition rates in Ibaraki went from 10 or 20 Bq/m² per day to 400 on Saturday and 800 on Sunday -- before they dropped down again.

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by **Ident 7777 economy**

on **Wed, 04/13/2011 - 21:56**
[#1167599](#)

Shortly after the earthquake, the radiation levels inside #1 exceeded 100 Sv / hr,

Could be instrumentation failure too, due to other factors (broken wire(s), heat, radiation, saltwater), so, we don't have all the facts on this either ...

Some verification I would expect could be made from outside the building, e.g. a higher than normal reading up next to reactor bldg #1.

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by **Stormdancer**

on **Wed, 04/13/2011 - 23:08**
[#1167808](#)

Evidence for recriticality in reactor 1 preceeded the 7.1 by quite a bit. It seems more likely to me that the dramatic increase in reactor 1's drywell radiation levels probably coincided with the pressure vessel failing and dumping some part of a molten core into the drywell.

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by **Lord Wellington**

on **Wed, 04/13/2011 - 20:25**
[#1167321](#)

"I can't find anywhere Tepco has "admitted" anything"

Just about the most truthful thing.

Go back to sleep.

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by **trav7777**

on **Thu, 04/14/2011 - 00:44**
[#1167925](#)

So trav7777 will say this is not "bad" news.

You idiot ass...I was the one, more than a week ago, who said that neutron beams and radionuclide emissions were likely from SFPs. I said that. Nobody else did. Me.

If you construe that as my having said it was not bad news, then you are a fucking idiot.

I have maintained since day THREE that the danger here was not reactor cores; in fact I said LET THEM MELT DOWN, they cannot be saved. Spend all efforts on mitigation of SFP rods because there is NO CONTAINMENT for them.

I would not be surprised if sporadic criticality was occurring in these ponds as a result of mechanical displacement of fuel elements plus inclusion of unborated water.

There is argument upthread about silly shit such as "proof." No, this is not proof in the OP, it is EVIDENCE. It is what I said 2 weeks ago, there is EVIDENCE of ongoing criticality here and there, xenon isotopes downpipe, Cl36. If they find Cl36 in the water, there you go.

The heavier than expected isotope concentration is evidence of there having been sporadic criticality at some point. News flash- these events are the accidents which KILL plant workers. Not exposures, not leaks, but criticality accidents due to moving some shit too close to other shit.

The premise is that SFPs have undergone some criticality during the aftermath. It is not dispositive; there is no proof. It is only a theory that tends to fit the facts.

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by **slewie the pi-rat**

on **Thu, 04/14/2011 - 02:32**
[#1167999](#)

well, we did go balls to the wall about this shit, for days, here, it seems. and there was a lot of very interesting stuff being shared. yes, trav said that about the SFP's but others went into that, too. almost a dozen, probably, certainly a half-dozen, easily. what the hell? can these SFP's be going critical or not. theoretically, yes! and, there are clues around, as you say. arnie goes into this @ fairewinds. shit! no two people on earth see this the same way, as far as i can tell. so what? tell it like ya see it, and invite others to do the same.

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by **Seasmoke**

on **Wed, 04/13/2011 - 19:39**
[#1167182](#)

water seems to be perfect for a bubble bath....

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by **Abitdodgie**

on **Wed, 04/13/2011 - 19:40**
[#1167188](#)

Does this mean my electric bill is going to go up?

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by **Bicycle Repairman**

on **Wed, 04/13/2011 - 19:55**
[#1167250](#)

Yes. This is your fault. You wanted electricity so you could play your "electric twanger". Now you'll have to pay.

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by **sangell**

on **Wed, 04/13/2011 - 19:41**
[#1167192](#)

A month into this thing and they still have no idea what the inside of that plant even looks like much less a method to remove and secure those spent fuel rods, if that can even be done.

Then they've got a dozen or so other reactors in the quake damaged zone. Just what surprises will those units unleash when they are brought back on line. I assume they are going to be brought back on line for the summer otherwise Honshu is going to be doing rolling blackouts forever.

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by **hardclearaye**

on **Wed, 04/13/2011 - 19:56**
[#1167255](#)

It is going to be very difficult if at all possible to put the monster back in the pen, looks like they are working on it.

TOKYO, April 8 (Xinhua) -- Toshiba Corp. submitted a proposal to Tokyo Electric Power Co. (TEPCO) and the Ministry of Economy, Trade and Industry (METI) to decommission four troubled reactors at the Fukushima Daiichi nuclear power plant, local media reports said Friday.

The proposal filed by TEPCO and METI was drafted with the assistance of nuclear experts from Toshiba's Westinghouse Electric Co, Babcock & Wilcox Co. and Shaw Group, who gained invaluable knowledge from the cleanup following the Three Mile Island nuclear crisis in 1979.

According to sources close to the matter, the proposal sets out to level damaged buildings and structures at the Fukushima Daiichi complex without causing any more contamination to leak and will utilize robots to remove radioactive rubble caused by hydrogen explosions and the earthquake and tsunami that pounded the facility on March 11.

The proposal, which states it will take around 10 years to remove contained nuclear fuel rods and spent rods in storage pools from the four reactors, will be revised and updated as needs dictate, the consortium said.

They also said work would be undertaken to improve the condition of soil contaminated by radiation leaks.

TEPCO and METI will also look at a proposal to be submitted by Hitachi Ltd., which plans to liaise with General Electric Co., Bechtel Corp. and other utility firms and nuclear experts in a rival bid to decommission the the four reactors.

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by Bicycle Repairman

on Wed, 04/13/2011 - 20:15
#1167293

"They also said work would be undertaken to improve the condition of soil contaminated by radiation leaks."

Do you think they will use some kind of Pu vacuum cleaner to do this? Maybe Oreck makes one?

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by Plumplehook

on Wed, 04/13/2011 - 19:46
#1167203

Just in on NHK - temp in reactor 4 SFP now up to 90 degrees celcius:

The Tokyo Electric Power Company, or TEPCO, says the water temperature in the spent fuel storage pool at the No. 4 reactor in the crippled Fukushima nuclear plant has risen to about 90 degrees Celsius. It fears the spent fuel rods may be damaged.

TEPCO took the temperature on Tuesday using an extending arm on a special vehicle. It found the temperature was much higher than the normal level of under 40 degrees.

To cool the fuel, TEPCO sprayed 195 tons of water for 6 hours on Wednesday morning.

The company thinks the pool's water level was about 5 meters lower than normal, but 2 meters above the fuel rods.

TEPCO believes the water level is likely to rise by about one meter after the water spraying on Wednesday.

The company also believes temperatures rose after the loss of the reactor's cooling system.

TEPCO says high levels of radiation at 84 millisieverts per hour were detected above the water surface, where radiation is rarely detected.

The company plans to continue spraying and to analyze radioactive particles in the pool to determine whether the fuel has been damaged.

The storage pool at the No. 4 reactor has housed all the fuel rods that were in operation at the reactor due to massive engineering work there.

TEPCO has sprayed more than 1,800 tons of water on the No. 4 reactor using fire engines and special vehicles since the March 11th crisis. The company feared that fuel rods could cause evaporation of water and put workers at risk of exposure.

University of Tokyo Professor Koji Okamoto says the temperature of 90 degrees indicates that cooling is continuing, although some of the water in the pool may be boiling.

Okamoto says high radiation indicates the possibility of radiation leaks from damaged fuel, and called for the evaluation of water sampling to determine how the situation should be tackled.

The professor says that to prevent further damage to the fuel, it's important to continue cooling the pool while minimizing water leakage from it.

http://www3.nhk.or.jp/daily/english/13_35.html

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by Bicycle Repairman

on Wed, 04/13/2011 - 20:11
#1167287

Thanks for the information. Just curious, how far do you think the Pu these reactors are spewing can travel? Fukushima? Tokyo? Jet stream?

Thanks in advance.

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by divide_by_zero

on Wed, 04/13/2011 - 20:18
#1167303

A link to the Berkley Nuclear Monitoring site, under teh air sampling apparatus they

use a Rigid brand industrial vacuum for air filter sampling

<http://www.nuc.berkeley.edu/UCBAirSampling>

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by Bicycle Repairman

on Wed, 04/13/2011 - 20:40
#1167374

If we rely on testing from a nuclear engineering school, and the results of their tests may eliminate the need for the school, what will the quality of the testing be?

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by wisefool

on Wed, 04/13/2011 - 21:14
#1167476

-Henry Ford. But engineers know going in they are expected to be peer reviewed like Doctors, even without the pay. So the majority are going to tell the truth even if that means they ending up a draftsman for a plumber putting bidet in a glass tower for an investment banker at goldman sachs. Those dudes make even more money than doctors and get peer reviewed by former GS employees who work at the FDIC, SEC, Treasury and IRS.

Somebody should actually go dig up Mr. Ford and put him on the investigation into the financial collapse. Another one of his famous quotes was "no problem is exceedingly difficult if you break it up into smaller peices" I.E. Who made money from both the run up and collapse? What was thier part?

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by divide_by_zero

on Thu, 04/14/2011 - 14:27
#1169621

This isn't some bullshit like the existence of AGW, the radiation and it's effects exist and will require study either way; cleanup or creation.

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by avonaltendorf

on Wed, 04/13/2011 - 22:04
#1167614

Unit #4 spent fuel is the least worrisome problem at Fukushima Daiichi. #1 is running hotter, no longer being monitored or data being hidden. No access to #2 and leaking radioactive water as fast as they pump it in. #3 was the MOX core, almost certainly a puddle of corium that breached the pressurized steel vessel (my guess).

The proposal to demolish the containment buildings without additional release of radioactivity is complete bullshit.

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by tortola trader

on Wed, 04/13/2011 - 19:44
#1167204

Al`Gore(bechev)??? Why, I believe he's busy getting a massage right now....

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by LostWages

on Wed, 04/13/2011 - 20:05
#1167273

Unlike Gore's massage, this story does not have a happy ending.

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by Misean

on Wed, 04/13/2011 - 19:45
#1167208

So, what has been confirmed? That the author believes that some information released by TEPCO proves a suspicion the author has? That's it then!?

Nice headline though...

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by **Bicycle Repairman**

on **Wed, 04/13/2011 - 20:47**
#1167390

"The firm known as TEPCO said its analysis of a 400-milliliter water sample taken Tuesday from the No. 4 unit's spent nuclear fuel pool revealed the damage to some fuel rods in such a pool for the first time, as it detected higher-than-usual levels of radioactive iodine-131, cesium-134 and cesium-137." These confirm an ongoing fission reaction.

Did you read that part of the article? Do you think it indicates something else? How do you feel about the detection of abnormal levels of radiation in children's milk here in the USA?

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by **MSimon**

on **Wed, 04/13/2011 - 21:23**
#1167508

Go to the top and read my critique. None of those isotopes is evidence of a current criticality AT THIS TIME.

If we see I-131 two months from now that would be evidence. Or I-134 now - which has a half life on the order of an hour.

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by **Bicycle Repairman**

on **Wed, 04/13/2011 - 22:20**
#1167667

Any thoughts on the isotopes present in American children's milk?

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by **Stormdancer**

on **Wed, 04/13/2011 - 22:55**
#1167779

Umm....it's not a good thing? :)

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by **trav7777**

on **Thu, 04/14/2011 - 00:52**
#1167938

I cannot concur. Far higher than normal levels of these isotopes are evidence. They are not proof, nor are they conclusive. They are merely evidence.

If there are stray neutron emissions, I would not wager these came from reactors that are in containers intended to provide neutron shielding (otherwise the things would kill everybody nearby).

I think "ongoing fission" is a gross misnomer. There is at most sporadic fission in the nature of the types of criticality accidents which have periodically killed nuke plant workers over the years. If the rods have been moved too close to one another and unborated water is introduced to the pile, fission is certainly not unexpected. It happens sometimes even in the NORMAL mode of operation of these pools.

If you intend to say that these isotopes provide no evidence of "ongoing" or "current" fission, then I agree.

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by **Element**

on **Thu, 04/14/2011 - 01:14**
#1167949

If you intend to say that these isotopes provide no evidence of "ongoing" or "current" fission, then I agree

ah Trav, now you're engaging in binary thinking here.

Fission is not on or off, it's all about the concentration, not just the distance, or geometry, or transient energy level.

As I expect you know, natural reactors have formed where natural uranium oxide ore was at a high enough deposition concentration that it self-reacted and swapped neutrons for hundreds or thousands of years, and created significant natural plutonium in the process. (google Oklo reactor)

Recriticality is just the extreme-end of a spectrum of fission potential that's occurring continuously if you have several tons homogenised in melt and poor

moderation.

A hot highly homogenised melt of corium and concrete WILL still fission and make more heat above existing daughter product decay and activation decay. Every flash just activates more.

The danger is a system that is just dilute enough to not have recriticality states (much) but just sits there decaying AND making new daughter products, and thermal vibes, for years ... Like BWR foundation will provide.

If it's thermally insulated you have a big problem brewing because it can remobilise anytime water is re-introduced. If you keep flooding it indefinitely you get poisoned anyway.

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by **MSimon**

on **Thu, 04/14/2011 - 08:28**
[#1168253](#)

It is the WATER in the reactors that does the shielding. No water (it only takes about 4 to 6 inches to do the job) between you and the neutron source, no shielding.

And yes recriticality has been intermittent. I would expect that from a pile of junk.

As you point out there is no conclusive evidence. So you may be correct. But at this point I doubt it. The only criticality I'd bet on is reactor #1 which appears to have core on the floor of a largely intact containment structure. I believe the reactor vessel there has melted through. With the top of the vessel (the cap) intact. That is indicated by the fact that it can hold some pressure (on the order of 100 psia).

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by **Spalding_Smailes**

on **Wed, 04/13/2011 - 19:45**
[#1167212](#)

Fukushima nuclear power plant accident. Farms in the range of 10 kilometers

Video link •

Many [cattle](#) are dying ...

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by **andybev01**

on **Wed, 04/13/2011 - 19:58**
[#1167251](#)

If those cattle are dying of starvation what does that tell you about the displaced people, and where is that video?

A sick and strange situation.

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by **Spalding_Smailes**

on **Wed, 04/13/2011 - 20:04**
[#1167270](#)

Another one

Busby: [400000 to develop cancer in 200 km radius of Fukushima](#)

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by **HK**

on **Wed, 04/13/2011 - 20:15**
[#1167296](#)

Are they dying of starvation or radiation?

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by **CitizenPete**

on **Thu, 04/14/2011 - 00:43**
[#1167926](#)

lack of water - dehydrated - systems shut down

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by **Isotope**

on *Thu, 04/14/2011 - 00:46*

[#1167928](#)

Most likely dying of dehydration.

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by **Lord Wellington**

on *Wed, 04/13/2011 - 20:37*

[#1167364](#)

The cattle are dead.

No farmer would have left them caged.

The farmer is dead.

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by **wisefool**

on *Wed, 04/13/2011 - 21:19*

[#1167489](#)

agreed. But they are also probably irradiated. Or the butcher is dead too.

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by **bob_dabolina**

on *Wed, 04/13/2011 - 20:03*

[#1167262](#)

woah.

Not gona lie, that is kinda' scary.

But it's ok John Paulson said this is bullish for Japan because they will rebuild the area.

For shits and giggles someone send that link to PETA

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by **Lord Wellington**

on *Wed, 04/13/2011 - 20:28*

[#1167332](#)

Those cattle are not sleeping.

They are dead.

The cattle farmer did not leave his farm and leave the beast enclosed.

The cattle farmer is dead.

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by **Bicycle Repairman**

on *Wed, 04/13/2011 - 20:53*

[#1167406](#)

Those cattle are not dead.

They are resting or perhaps they are stunned. Japanese cattle are known for taking a long nap after shagging.

They are prodigious shaggers.

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by **The Profit Prophet**

on *Wed, 04/13/2011 - 21:46*

[#1167584](#)

Agree...you can clearly see more than one of them having a smoke.

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by **CitizenPete**

on *Thu, 04/14/2011 - 00:41*

[#1167924](#)

FUCK. what a waste

what a disaster

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by **Landrew**
on Wed, 04/13/2011 - 19:48
#1167213

When I saw isotopes other than Iodine I knew they had a core breach. I wonder why the Japanese government (heck the world) allowed the company to try and save the reactor complex for use? I would have buried all the cores and storage pools. Of course hindsight makes me a genius most of the time. The whole world will suffer now with the loss of nuclear power. Friends of mine at Muon's Inc. have been working on a Thorium reactor proposal a more than two years with little face time from DOE. Do you think they will answer the call now ha!

Carlo Rubia was a very very bright guy and I think his muon catalyzed thorium reactor theory, that Chinese are building could be one of the great tools of the world ever.

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by **Bicycle Repairman**
on Wed, 04/13/2011 - 20:05
#1167274

"I wonder why the Japanese government (heck the world) allowed the company to try and save the reactor complex for use? "

If this is true, it has not been emphasized enough. This explains the stalling and the rest of the f#cking kabuki theater. While people all over the world are being threatened and the Japanese people will be getting **cancer**, TEPCO is **trying to save their investment. Are you sh!tting me???**

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by **SparkyvonBellagio**
on Wed, 04/13/2011 - 19:56
#1167226

Those notes in Japanese read:

HOLY SHIT SHERLOCK-YOSHI

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by **slewie the pi-rat**
on Wed, 04/13/2011 - 21:07
#1167228

well, pretty much this exact scenario and reasoning was inducted here, quite a while ago. apparently, the earthquake cracked the spent fuel pool with all the spent and unused fuel rods. no coolant. no way to contain any hosed stuff. cladding melt = H2 (hydrogen gas) explosion, blowing the living shit out the top pf the building.

estimates of 5000 degree C. temps. reliable? i can't prove it!

the chain reaction/nuclear fission was thought to be intermittent. now, it is, perhaps intermittent in about 5 places in this mess, at once, and therefore "ongoing". or, ironically, perhaps they hosed in boron water, which could, conceivably, have slowed the neutron escape and helped the mess to go critical. don't know, but both ideas have come from sources which i now trust.

are they saying they repaired the SFP in 4? or that it always held coolant? and now, it's almost hot enuf in there to boil water? really? look at this place! multiples of the Ce-137 vaporized in chernobyl! 2-3 X, at least! 90 degrees C.? well! isn't that **special???**

maybe others will chime in and help with the thinking.

recently there has been some renewed zH concern about reactors #s 5 & 6, also without coolant for long enuf to get more problematic than publicly acknowledged, even tho not producing electricity on 3.11.11. "shut down". and full of fuel and spent fuel, needing to be cooled, and not having that need met. the temps and damage go up pretty fast when the coolant goes awol. see what they say, next.

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by **MSimon**
on Wed, 04/13/2011 - 21:27
#1167521

I haven't seen any evidence of current criticality at the SFPs. The last decent evidence was for intermittent criticality at #1.

It is bad enough. Which is very bad indeed. No need to make it worse without evidence.

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by **slewie the pi-rat**
on Wed, 04/13/2011 - 22:01
#1167613

i understand your background and your innocent need for more evidence. we've had many such posters, here, for over a month. there are very few left, btw. please excuse me if i'm wrong and just making this all worse than it really is, ok?

if you've read the posts, here, over that time, good! if not, please visit them. you'll see some great interaction and interesting approaches to this enigma, in a riddle, with almost no one speaking the truth, ever. here, again, we have a page with absolutely conflicting info put out by Tepco about #4. same shit, different day. the japanese are masters at propoganda and subtle clues about how to behave, and this had been happening, time after time, for over a month.

if the information and the processes which lead to what tyler is saying and what slewie is saying do not meet your criteria for **evidence**, thank you for stating it so clearly. that is fine with me. please go back and review the articles and posts for the last month, if you haven't already. you might understand the "circumstances" a bit more like me, if you do so. i've already read them, and i haven't been shy about what i've been thinking, either. neither has tyler. also quite a few others. we have a permanent record of everything said, here. enjoy!

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by **MSimon**

on *Thu, 04/14/2011 - 08:37*
#1168265

I have been here since the beginning. Not all the threads. But most of them. I'm a newbie at ZH (18 weeks or so as a poster).

I must say that even with the hysteria of some of the commenters that this is the best major site for news. Tyler (even if his understanding is incomplete) breaks the news fast. And the links in the comments are outstanding.

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by **slewie the pi-rat**

on *Thu, 04/14/2011 - 09:51*
#1168511

ok. i've seen you around. working hard, here, too, ok? be careful with the labels, if you would, pls. an honest diff of opinion or POV does not = hysteria. #4 is totally fuked, imo. no fuel in core! the buiding blew up b/c of the SFP. sorry if ya don't like the way that sounds, it's **true!**

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by **HedgeCock**

on *Thu, 04/14/2011 - 10:05*
#1168540

"an honest diff of opinion or POV does not = hysteria."

Right you are slewie. I'm getting sick of reading that word. It is not "hysteria" to worry about the still living and not wait to cry over the dead.

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by **etudiant**

on *Wed, 04/13/2011 - 19:52*
#1167233

Have to say, this does not seem such a negative bit of info.

Bad news, the fuel rods are damaged. Of course, given the previous hydrogen fires and explosions, that was already known.

Good news, there is enough water in the pool to cover the fuel rods remaining. The water may be radioactive and overheated, at around 90 degrees C, but it indicates the pool is still largely intact.

So the problem likely is a pile of fuel pellets from the damaged fuel rods, collected in a heap at the bottom of the pool, overheating each other rather than getting cooled by circulating water.

Relatively speaking, that still makes pool 4 one of the safer sites in the plant. It is spitting a bit of iodine and cesium, but it is manageable with periodic water injections.

The pool is 4000 ton capacity, the daily water injection is about 200 tons, so it is staying pretty tight.

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by **Bicycle Repairman**

on *Wed, 04/13/2011 - 20:07*
#1167281

How much damage do you think these 6 reactors will cause during the 30 years it will take to decommission them? What do you think will happen if there is an earthquake and/or tsunami during that period? How long do you think it will be before the excluded zone can be repopulated?

Thanks in advance.

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by **slewie the pi-rat**

on **Wed, 04/13/2011 - 20:52**
[#1167379](#)

damage over 30 years? 7X chernobyl. 75 years for about 100 kilometers. just guessing.

there is an enormous amount of spent fuel which had been removed from the pools inside the reactor buildings. there is a separate building, somewhere @ fuk_u, with spent fuel pools, probably 2, and everything is just hunky-dory, with every bit of it, of course.

yeah. wanna buy a bridge? no evidence. about 3 sentences, that i've seen, whatever that's worth. when the first people re-conned the site, their was a "windows in outside storage building out" little blurb.

The End.

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by **MSimon**

on **Wed, 04/13/2011 - 21:27**
[#1167530](#)

When the monsoons shift there is a decent chance the radioactives could take out parts of Tokyo.

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by **slewie the pi-rat**

on **Wed, 04/13/2011 - 22:15**
[#1167650](#)

well, i certainly would agree that it's gonna be bad news bears from the fallout. many posts here following weather over the weeks, with a couple shifts putting tokyo downwind, already. i think (not positive) in the days immediately after the 11th, tokyo was getting it pretty good.

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by **topcallingtroll**

on **Wed, 04/13/2011 - 20:10**
[#1167283](#)

A slow iodine leak that never stops is a big problem.

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by **MSimon**

on **Wed, 04/13/2011 - 21:29**
[#1167541](#)

Natural decay will take care of I-131 in about 80 days. If there is no new criticality.

It is the longer lived stuff that is the bigger problem.

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by **slewie the pi-rat**

on **Wed, 04/13/2011 - 22:18**
[#1167659](#)

agreed. in cali, people are advised to let the milk sit till near the use by date to allow for I decay if they are worried.

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by **Bicycle Repairman**

on **Thu, 04/14/2011 - 08:31**
[#1168259](#)

Milk turns rancid before 80 days. What should I do about cesium?

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by **slewie the pi-rat**

on **Thu, 04/14/2011 - 10:00**
[#1168533](#)

w/ a 1/2-life of 24 years, that's what's bothering me, too! like mercury,

this stuff may be concentrated by the food chain(s). not good! i'm 65. my kids are over 30. my dad's 93. he just outlived his dad, my grampa! i'd like to see if i could make 93 myself! this sure doesn't give me extra confidence, but i'm not dead, yet, either!

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by **breezer1**

on **Wed, 04/13/2011 - 19:52**
[#1167236](#)

ernie speaks...

<http://vimeo.com/22209827>

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by **digalert**

on **Wed, 04/13/2011 - 19:56**
[#1167244](#)

Tomorrow Obama announces that the ceiling on debt and acceptable radiation will be raised as high as needed.

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by **Barb Dwire**

on **Wed, 04/13/2011 - 19:56**
[#1167256](#)

I'm still surprised that none of the media has brought up the story of Jimmy Carter who commanded the team that help shutdown the runaway Chalk River reactor in the 50's.

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by **MSimon**

on **Wed, 04/13/2011 - 21:31**
[#1167548](#)

http://en.wikipedia.org/wiki/Chalk_River_Laboratories

http://ottawariverkeeper.ca/news/when_jimmy_carter_faced_radioactivity_h...

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by **Zero Govt**

on **Wed, 04/13/2011 - 20:00**
[#1167258](#)

the BBC (Bent Broadcasting Corporation) rolled out an 'expert' (crone) yesterday to say how under control Fukushima was and how "effective the response has been".

The response of Tepco and the Japanese Govt has been little short of a complete clown show who have not a fuking clue what to do one day after the other. Pissing on a melting nuclear reactor with a fire engine is not an "effective response", it's a desperate act to make it look like you're doing something when in fact you're all out of options

The bent rotten scum of the BBC continue their propaganda clearing house operations on behalf of Govts worldwide... fuk the fuking BBC

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by **topcallingtroll**

on **Wed, 04/13/2011 - 20:07**
[#1167278](#)

Cover those godam pools.

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by **Jack Burton**

on **Wed, 04/13/2011 - 20:34**
[#1167356](#)

I spent many decades using the old BBC as a touchstone to go to for news. As much as to use an old shortwave radio back in the technology stone age of the early 80s.

But NOW! The BBC has become a voice of the corporate elite and the British intelligence community. They are whores made all the worse by their about face from honest news brokers to complete whore of the establishment.

I don't listen to a thing these ass clowns say. It is propaganda. They show their true colors by these useful idiots they trot out to tell us all is well at Fukushima.

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**by toxic8****on Thu, 04/14/2011 - 13:14**
#1169304

I find the BBC to be an ass hair better than random MSM news here in the USA. At least, they have pretty pictures.

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**by HedgeFundLIVE****on Wed, 04/13/2011 - 20:01**
#1167261

no story out on zero hedge yet about Goldman Sachs after the close here. but we've been calling that obama will have at it with wall street again really soon. guess it's happening. smells like april 2010: <http://www.hedgefundlive.com/blog/thursday-market-expectations-jamie-dimon-gave-us-a-hint-today>

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**by topcallingtroll****on Wed, 04/13/2011 - 20:03**
#1167264

Milk in little rock arkansas had the highest levels of radioactive iodine of all samples tested.

Three times the limit allowed for drinking water but under the limit allowed for milk which makes no sense to me. You can find this information online about U.S. government testing and results, but not a single newspaper in arkansas mentioned it.

I havent bought a newspaper in five years. They are worthless. Cover that pool you fucking slants! Radioactive iodine is a gas.

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**by Aristarchan****on Wed, 04/13/2011 - 21:01**
#1167441

The info for milk contamination that is being misrepresented on some blogs is way wrong...the misinterpretation at least. Some of them are mixing up the water limits for milk limits (people intake more water over a lifetime than milk), and some are taking the numbers (24 pCi/L of Cesium in Hilo) as being above the limit. It is not. The FDA sets the intervention levels on milk, and they are set at 33,000 pCi/L Cesium (Cs-134 + Cs-137) for milk.

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**by majia****on Wed, 04/13/2011 - 23:21**
#1167827

I've spent an hour and a half on the EPA webpage (and EPA reports) trying to find where it is stated that the exposure rates are based on lifetime estimates. Nowhere did I find this stated. Please provide me the link.

What I did find were statements like the one pasted below that do affirm that long-term exposure is factored into the risk models. However, the limits set for milk and water are not clearly delineated as based on any temporal frame. I'm still searching and will post what I find and would appreciate any links anyone else has found:

EPA: "Next we use mathematical models to evaluate potential solutions.

"The long lifetimes of many radionuclides, and the complex decay chains, means that in some cases, we have to project potential exposures for hundreds to thousands of years into the future. To make the extremely complex calculations that tell us what is likely to happen to radionuclides in the environment (potentially far into the future), we develop computerized, mathematical models. They take into account many factors:

- decay rates of the radionuclides initially present
- the behavior of these radionuclides in the environment
- decay chain products, their decay rates, and their behavior in the environment
- the type of environment (air, water, rock formations).

<http://www.epa.gov/rpdweb00/protect/standards.html#develop>

On another note, Arnie Gunderson has a new update and adds fuel to the debate about low-dose radiation by arguing that there significant health effects from TMI.

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by Aristarchan



on **Wed, 04/13/2011 - 23:28**
[#1167835](#)

Here are some links I sent out earlier on twitter:

<http://tinyurl.com/3kq8zx7>

<http://tinyurl.com/3pov53n>

<http://tinyurl.com/3n64pun>

The EPA sets lifetime standards for radioactivity via human consumption, based on cumulative data and estimated consumption of a product (water consumption being much higher than milk). The most important standard is the FDA one, which is the single exposure limit (intervention limit) for a product. Also, one of these links is a Hawaii newspaper article that quotes EPA, one is EPA, the other is FDA.

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by **majia**

on **Thu, 04/14/2011 - 00:49**
[#1167933](#)

Ok I checked the links. Water is based on lifespan exposure. No time frames are available for air or milk, just your FDA Intervention Level for diet and milk.

I also found a lot of criticism of EPA standards.

I'm interested in how do you respond to the following charges:

1. there is no safe level of ionizing radiation (because of the damaging effects on DNA repairs). Tons of research on this plus the impact on pregnant bodies, embryos, susceptible individuals etc.
2. The EPA and NRC standards are based on the ICRP approach, which does not address the effects of internal emitters and assumes "energy is averaged across the whole body or a whole organ."

The alternative to ICRP.

[ECRR's 19th March 2011 advice note on Fukushima](#) - the European Committee on Radiation Risk

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by **TrueSkeptic**

on **Thu, 04/14/2011 - 00:32**
[#1167913](#)

The short answer is that the nuclear industry, and therefore governments, don't really want clear actionable limits that an average citizen could understand and that are regularly checked and publicly disclosed.

You have to do your own research to educate yourself. If you don't have a related background it will take a day of reading to understand the different measurement systems (becquerels, pico curies, sieverts, millisieverts, microsieverts, Rads, etc), the type of radiation, rate of dose or accumulated dose, an internal (consumed or inhaled) or external emitter, etc. ZH has been a great resource for links to explanations.

Ignorance and lack of concern are part of the control mechanisms.

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