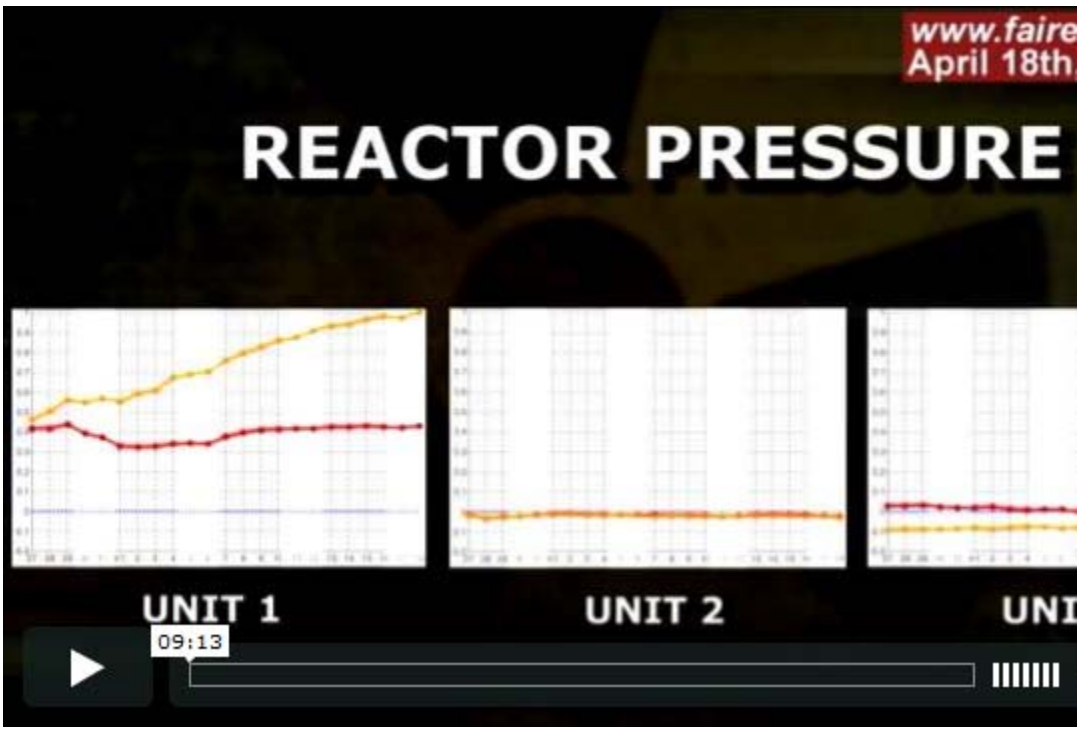
FAIREWINDSASSOCIATES

Gundersen Discusses Current Condition of Reactors, TEPCO Claim of "No Fiss of Radiation Monitoring in Fish



Hi, I'm Arnie Gundersen from Fairewinds, and it's Monday, April 18th. I've been aw City for several days on business, and I wanted to tell you: it's nice to be back.

I appreciate the emails we've been receiving, both the ones saying keep it up, bu gotten some good technical information from some of you as well, and I really appr

I wanted to talk about three things. The first is the condition of reactors 1, 2, and 3 the condition of the fuel pool in Unit 4. The third is the monitoring of [radioactivity in

The first, the condition of reactors 1, 2, and 3, is actually as a result of several of y a really great link about the reactor parameters as measured by TEPCO [Tokyo Company]. The first graph I want to look at is the pressure inside the reactor. Unit Unit 2 is in the middle, and Unit 3 is on the right. If you look at those, then you'l pressure inside of Unit 2 and inside of Unit 3. That's a good thing. That shows itself is under no stress. There is pressure, relatively high, one-hundred and fifty p inside of Unit 1 and I don't know why. I'll have to get back to you on that. But let' next slide, which begins to make this a little bit curious. The next graph is Unit 1,

but it's the temperature inside the reactors. If you look at Unit 3, the temperature is which is really great. Very low pressure, very low temperature; that's basically abo could hope for right now. But look at Unit 2. Unit 2 shows three hundred degrees degrees F), or about one-hundred and fifty on the Centigrade scale (150 degrees C That can't happen if it's water. In thermodynamics, there's this thing called the "ste water at room pressure, which is zero [PSI] (0 lbs/Sq. in.) on these charts, boils and twelve (212 degrees F). You can't have water or steam at three-hundred degre (300 degrees F) when there's no extra pressure put on it. What does that tell me that what they're measuring in Unit 2 is not water or steam at all, it's hot air or hot that's a problem. It tells me that Unit 2 is not being cooled. Now, if you look at Unit are higher still, but the pressure in Unit 1, going back to the other graph, is high have water inside it, and [therefore] still be water cooled, but Unit 2 cannot. No about it before, that Unit 2 has a hole in the bottom of it, so I guess we shouldn't b the pressure is zero, but we should be very concerned that we're exhausting hot top of that reactor.

The last graph is a series, again, [of] Unit 1, 2, and 3, of the containment pressure the reactor is inside of, and that shows that, basically, Unit 1 and Unit 3 have slig pressure, and Unit 2 has no containment pressure. If you look at Unit 1, and 2, an lines on 1 and 3, and there's only one on Unit 2. That means there's no pressure the containment. We know that to be true because there's evidence of an explo leak. So, this graph clearly shows that Unit 2's containment is leaking. The previ show that Unit 2 is not getting water inside the core. I don't really think that the ma has addressed that: that Unit 2 is the cause of all of this radioactive pollution [go ocean because its containment doesn't have integrity, and its reactor doesn't ha whatever water is going in the top is going out the bottom, through the containme surrounding soils. It's the biggest concern. Unit 3 seems to be out of the woods somewhere in between.

Now I want to talk to you about the Unit 4 fuel pool. On Friday, TEPCO had a [pre said they'd measured the water in the pool and they found that a little tiny cubic ce about that big, had two-hundred and fifty disintegrations per second (250 Bq) of io remember that iodine is one of those fission products that break up. I believe tha iodine in a pool, it's an indication that a fission reaction has occurred. It can't have 4 because Unit 4 has been shut down for five months – unless a reaction oc accident as a result of the accident. I think TEPCO anticipated my argument, an that's not what happened. The iodine fell from the sky from the explosion in Un [That's] called "iodine deposition." Well, let's take TEPCO at its word. A little box, th hundred and fifty disintegrations per second now (250 Bq), but the accident occ days ago. So, that's four half-lives. If it's two-[hundred] and fifty (250 Bq) now, it w (500 Bq) eight days ago, one thousand (1,000 Bq) eight days before that, an (2,000 Bq) eight days before that. So, that little box, when these plants were explo fall into it to the tune of two-thousand disintegrations per second (2,000 Bq). Th centimeter by a centimeter by a centimeter. If we look at a cubic meter, there's hundred by a hundred by a hundred of those little boxes, or a million (1,000,000 c boxes, in a cubic meter. If we multiply that two-thousand (2,000 Bq) by a millio thousand megabecquerels in a cubic meter (2,000 MBq/sq. m, or 2,000,000,000 I that pool, this is the last piece of math here, that pool is fifteen meters deep (15 those boxes stacked fifteen high. So we take the two-thousand megabecquere times fifteen, we get thirty-thousand megabecquerels (30,000 MBq) in that colu TEPCO at its word, all of that fell from the top. That's a square meter. What that m iodine deposition on a square meter was thirty-thousand megabecquerels (30,00 pushing the numbers at Chernobyl. So, if we take TEPCO at its' word, they have level releases on the other units which caused the iodine to fall on Unit 4.

There's two other pieces of that, though. Iodine is a gas, and I don't know how a g sky in these kinds of quantities and gets absorbed into a fuel pool. There's probabl one factor there, too. The last piece is, if we take TEPCO at its word that the iod sky, Unit 1 exploded first; Unit 2 exploded next, [correction] Unit 3 exploded next, s exploded third. Unit 4 still had its roof on during all of those explosions, so it's l iodine deposition getting into the fuel pool as a result of the explosions in Units 1, we take TEPCO at its word they're claiming, basically, a Chernobyl-level release. I could be that, or it could be that the fuel pool had a self-sustaining chain reaction.

The last thing I wanted to talk about was fish. Over the weekend, the FDA [Unit and Drug Administration] announced [that] it would not be monitoring fish on the W don't think that's a good idea. If there's anything you can do as a result of these staying informed, and I appreciate that, it's to contact your congressperson and s citizens here, and we deserve to have our fish monitored." I don't think we'll find a but over the next year as the little fish get eaten by bigger fish, get eaten by bigg plume spreads, we might. It just seems to be a prudent health risk that can be av monitoring.

Thank you, and thank for everyone for their emails, and for those of you who pus button, I also appreciate it. I'll get back to you as soon as I have other inform Thanks.

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