Nh-546-Dec.-7-2021-Tim-Deere-Jones-12821-11.36-AM

Libbe HaLevy

00:00:00

Fukushima radiation. The problems created by that 2011 nuclear disaster have not ended and let's face it. They never will. Now Tokyo electric power company is once more pushing to release 1 million, 280,000 tons of radioactive tritium, contaminated water from Fukushima into the Pacific ocean. And they want to start as soon as early 20, 23, they're pushing hard to make us all believe that no problem here, we've been doing this kind of tainted water release for years at nuclear reactors. What are you making such a big deal out of it, but then you hear from a genuine expert on the matter a Marine biologist who tells you

Tim Deere

00:00:48

The greatest volume of aggregated radioactivity as measured in terms of Tara becquerels discharge to see for most nuclear reactors does actually consist of treaty aged water. The defense of this orthodoxy has been of huge importance to the nuclear industry. However, their claim that tritium is of low radiological significance has now been shown to be comprehensively inaccurate, but sadly, the industry refuses to adopt the outcomes of recent scientific studies, which have contradicted pretty much every aspect of the official position.

Libbe HaLevy

00:01:21

Well, yet again, the nuclear industry is trying to get away with long distance, slow motion murder, and yet again, it takes a Marine biologist. Who's familiar with the entire range of issues, meaning Tim deer Jones of the UK, to let us know that if Tapco gets away with this release of radioactive water from Fukushima, we will all be even more dangerously, stuck without recourse in the middle of that awful seat that we all share.

Announcer

00:01:51

Claire hot seat. What are those people thinking? Nuclear hot seat. What have those boys been braking clear, hot. See the Ms. Sinking our time to act is shrinking, but nuclear Hotsy. It's the bomb.

Libbe HaLevy

00:02:22

Welcome to nuclear hot seat, the weekly international news magazine, keeping you up to date on all things nuclear from a different perspective. My name is Leebee Halevi. I'm the producer and host as well as the survivor of the nuclear accident at three mile island from just one mile away. So I know what can happen when those nuclear so-called experts get it wrong. This week, the focus is on radioactive contamination from Fukushima, both in the water and on the land. First we hear from Marine biologist, Tim dear Jones, who provides us with the real story of what Tokyo electric power companies kept CO's intended release of radioactive water from Fukushima will mean to the ocean environment and people not just in the immediate future, but forever. Then we revisit the citizen's radiation data map of Japan and the groundbreaking citizen science study of where the radiation from Fukushima has been found throughout the country.

Libbe HaLevy

00:03:28

Today is Tuesday, December 7th, 2021. And here is this week's nuclear news from a different perspective. Here's this week's first feature. Tim dear Jones is a UK based independent Marine pollution researcher and consultant on September 15 for nuclear hot seat, number 5 34. We had him on to explain the radiological problems of dredging in the Bristol channel between the United Kingdom and Wales. Recently, he gave an online presentation on what it will mean if Tokyo electric power company Tapco is allowed to dump 1 million, 280,000 gallons of radioactive tritium, contaminated wastewater from Fukushima out of storage tanks and into the Pacific ocean, an act which they plan for 2023, and which is being widely condemned around the world. This presentation was recorded for and disseminated by your Samano dash net, the worldwide anti-nuclear network of Japanese people, living abroad and our thanks to USAA mono dash net for getting permission to nuclear hot seat to rebroadcast it here's that audio of the Tim deer Jones presentation, which was posted on November 21st, 2021.

Tim Deere

00:04:48

Okay, I'm going to talk to you about the disposal of water. And the first thing to mention is that in the 1950s, when the nuclear industry started discharges of very large quantities of liquid radioactive waste to see he had no knowledge of the way radio activity would behave in Marine environments. So in the absence of any scientific data, the nuclear industry came up with a hypothesis that iniquity tritium as treaty aged water was of low biological significance because it had a short half-life. It would dissolve into infinity once in a Marine environment. And it was a low activity radioactive emitter, which they assumed would generate very low doses from the consumption of fish. Only this hypothesis quickly became fossilized as a nuclear orthodoxy, despite the absence of scientific evidence to support it because the greatest volume of aggregated radioactivity as measured in terms of Tara becquerels discharge to see for most nuclear reactors does actually consist of treaty aged water.

Tim Deere

00:05:56

The defense of this orthodoxy has been of huge importance to the nuclear industry. However, their claim that tritium is of low radiological significance has now been shown to be comprehensively inaccurate, but sadly, the industry refuses to adopt the outcomes of recent scientific studies, which have contradicted pretty much every aspect of the official position. So particularly post the 1990s research published in peer reviewed journals, as conclusively proved that the tritium in discharged water quickly becomes incorporated into the sales of organic plant and micro organic material in Marine environments, that research has proved that organically bound tritium or OBT accumulates in fine sediment suspended in the water column or deposited in mudflats, especially those mudflats with a high percentage of organic material where the OBT can be enriched in the sediment by up to 250 times greater than the concentrations found in the ambient sea water Marine animals, which consume this organic material accumulate OBT at a faster rate, the nose exposed only to trippy aged water as a result organically bound tritium is far more biologically mobile through Marine to Marine food webs, the non organically bound tritium.

Tim Deere

00:07:20

So organically bound tritium is most highly by accumulating in a species near the apex of the Marine consumers, such as predatory fish and sea mammals, such species typically hold concentration between 2000 and 6,000 times greater than the concentrations found in near receipt in the ambulant water. But they have been shown to reach up to 61,000 bank rails to the kilogram in some species organically bound tritium also has a far longer half-life within biological entities and is more persistent in the environment than tritium tritium as treaty aging water. So it's clear that organically bound tritium is a far greater dose significance than charity aged water. And it's also clear that there is significant risk of elevated human dietary vote doses of Marine salt sourced, tritium via seafoods and organically bound tritium as far back as 2009 independent research published in the journal of environmental radioactivity commented that nuclear industry recommendations and advice on the dosing strict system significance of TA did water was not supported by the evidence and definitely required a reconsideration.

Tim Deere

00:08:37

However, it's clear from the current propaganda from the pro nuclear industry lobbyists who propose the discharge of Fukushima, that these concerns and comments have not been acted upon or the nuclear interests have not reconsidered their position or acted on the new evidence. So clearly in the context of the information I've shared with you, there is a very high potential for seafood consumers to receive significant don't reduce dietary doses of tritium, any it's organically bound form from the consumption of both Marine plant and animal products. Independent researchers now confirm that the seafood dietary pathway, however, is not the only way that human populations may receive doses of tritium and organically boundary to you because it is part of the nuclear orthodoxy that treaty or mat has treaty aging water dissolves in seawater. The industry has failed to conduct any research on the implications of this fact, however, research on the behavior and fate of other soluble radio isotopes and those which bonds, organic Marine microparticles provides a powerful indication of the behavior and fate of tritium and organically bound tritium in a union coastal environments in the UK, you study you so clearly shown repeatedly that coastal pastures, Washington flooded by high tide and storm surge become heavily contaminated contaminated with soluble and organically bound bonded radioactivity.

Tim Deere

01:10:04

And this has been proven to deliver dietary doses of Marine radioactivity through the consumption of dairy and meat products from animals reared on tide wash pastures. Similarly when coastal and urban industrial environments have been flooded by storm surge and high tide events, many thousands of tons of Marine water and sediment containing soluble and particle incorporated radioactivity have exposed both residents and cleanup crews. So significant doses by contact and inhalation pathways, another significant tritium and organically bound tritium dose pathway clearly demonstrated by the behavior of soluble and organic particle radioactivity studied in the UK is the sea to land transfer of Merino souls and sea spray generated in the surfaces and blown at least 10 miles in that this mechanism is proved to deposit soluble radioactivity onto pasture grass and other crops from where it enters the agricultural food chain and delivers doses to human consumers, at least 10 miles in.

Tim Deere

01:11:10

Then given the fact that there's airborne sea spray and Marine aerosols Laden with soluble radioactivity is clearly shown to penetrate up to 10 miles into the terrestrial coastal zone. It appears inevitable that coastal zone populations will also be exposed to inhalation. Doses of airborne radioactivity under conditions are prevailing all the short wins on the UK Atlantic coast, there's sea Frey and Marine aerosol Cedar then pathway has been estimated to operate for over 50% of the year. And it seems quite likely that on the whole issue coasts on the shoe coastal of the Pacific ocean, but similar mechanisms will prevail so much. PR has been given to the tap code claims that other radionuclides have been filtered out of the stored water, but this has failed to point out that the process cannot remove all of the other radionuclides. There is a broad consensus among independent workers that the water will still contain detectable quantities of strontium, 90 cobalt, 60 ID 1, 2 9 ruthenium mano six cesium 1 3, 7, and carbon 14.

Tim Deere

01:12:21

And that around 70% of the water still requires additional cleaning. This should not be forgotten when discussing the proposal to see storage as an example of the impact or sea to land transfer mechanisms. We can look at a review of a study carried out in the UK coastal zone between 1979 and 1985, where the medical team composed of GPS, a hospital medical consultant, a senior hospital medical registrar, and the medical statistician carried out research on the body concentration of cesium 1 37 in subjects from the islands of north uist of the west coast of Scotland. Now north uist is approximately 250 kilometers downstream of the set of theory processes. So see discharge radioactive waste discharge from Sellafield and translate transported through the Hebridean island group and pass orthopedist by a strong northward flowing current. The research on the item made use of whole body analysis, Scottish universities, research reactors center, and 96 hour gamma accounting analysis of subjects, urine and dietary intake, including island grow milk, them, fish, seaweed, vegetables, pasture, grass, and wild vegetation.

Tim Deere

01:13:42

This is the only dietary dose assessment study, which I have ever come across where such a wealth of actual empirical data has been deployed. Almost all of these studies that I've seen are based on largely hypothetical model data using a less effective 15 hour gamma account. The research on the island of north uist found that the island environment from the rich coastal farm lands through to the uncultivated more land of the interior was contaminated with cesium one through seven cesium, 1 37 was found in Ireland, seaweeds used as fertilizer and animal feed. And in Wales things such as venison and mushrooms and in the Ireland peat used for domestic cesium. 1 37 was found in all samples, analyzed foodstuff concentrations were higher in Ireland, green foodstuffs than in their main man equivalents. The radiological fingerprint ratio of cesium one-three seven to cesium 1, 3, 4, clearly implicated the Satterfield sea discharge as a source of the one for cesium that was being found.

Tim Deere

01:14:49

And the Caesium was clearly from the CGIAR land via the range of mechanisms that I discussed earlier. It was found that the C the cesium concentrations in either the urine was six times higher than in the mainland controls. And the Islanders had five times higher body concentrations of cesium, 1 37, then as a maintenance control subjects, it was found that the Islander with the highest body concentration of Satterfield seen derived sees your month 3, 7, 8, no facial seafood, but lived within 50 meters of the coast and farmed sheep and dairy and beef cattle with access to coastal grassland in and grassland. And the shoreline. I then who's who consumed greater amounts of Ireland grown produce were shown to have higher body concentrations of Sellafield derived cesium 1, 3, 7. Then those who consumed greater amounts of imported shock food, half of the 30 local coastal critic group groups living next to UK nuclear sites with liquid radioactives, discharges, and receiving doses of multiple nucleotides from usually usually calculated for seven or more received dietary doses from seafood lower than 10 microsieverts by comparison, the average Islander in the sea in the north us study exposure to Marine source to dietary Caesium alone via terrestrial foodstuffs was 13.7 microsieverts per year.

Tim Deere

01:16:24

So I think that kind of comparison gives you an idea of how serious and important they see to land transfer mechanisms can be in terms of dose, right? So there's the background to the discharge is let's have a look at the actual parameters that control the movement of ready radioactivity discharged from Fukushima. So the major influence there is the IOC or current. This IO SHEEO is a strong coherent Southwood flowing, current carrying polar water close in shore, along the entire 250 kilometer length of the Pacific coast. And one shoe it's highly relevant in the context of the organic bonding of tritium to note that the IO SHEEO it current is rich in organic material in general, the Han issue coast to the south of focus Shima consists of a narrow coastal plain backed by higher ground from which a number of rivers carrying yet more and more organically, rich sediment flow east into the Pacific to join me.

Tim Deere

01:17:24

Oh yeah. Well, it's not urban or industrialized significant areas of the coastal zone agricultural. So urbanization of almost all of the river deltas along that coastline with extensive land reclamation and port development mean that many of those rivers no longer have recognizable Delta systems and shoreline find sediment, deposits, mud flats, and salt marshes, the unbreak broken nature of this coast with fewer shelter to low energy environments. We're fine. Sediments can be deposited also means that as a result of these factors, the coherent and southward moving, oh yeah. She, current carries very high levels of mineral and organic fine sediments, which are unable to deposit out in the coastline environment. This means that the SHEEO is very suitable for the formation and transport of organically bound tritium, clearly consumers of seaweeds, fish and mammals raised in the OSU environment will be exposed to significant undetectable dietary doses of both tritiated water and organic benefit.

Tim Deere

01:18:32

In addition, during periods of onshore wind, and then a host wave activity, the Honda Hsu coasts downstream and south, and focusing on will also be subject to cease of sea to land transfer of tritium as both treaty aged water and OTT in aerosols and sea spray. And in episodes of coastal flooding, prolonged periods of onshore wind, or a strong feature of the annual meteorological cycle and the east coast of Honshu, as everybody will know, is a victim of numerous tropical cyclonic storms. I have no idea of the data on the percentage of the year, in which relevant onshore spins speed onshore onshore wind speeds with speeds in excess of 10 kilometers per hour will blow onto this coast. But since these are preventing winds, I would expect the percentage to be pretty high. So such CG land transfer to Marine deceased rays and aerosols will deliver both dietary and installation doses to coastal zone populations, at least 10 miles inland from the coast via the mechanisms discussed earlier Pacific coast or Han issue is subject to frequent coastal flooding events, which can impact both agricultural and urban areas.

Tim Deere

01:19:44

And this parameter will also janitor generate dietary contact and inhalation doses of treaty aged water and OB team. And of course the other radio nuclides, which haven't been scrubbed out of that water in the context of the evidence summarized above, I can confirm that the release of the massive quantities of focus, Shima spill of water has the potential to deliver significant and major inhalation dietary doses to haunt you coastal zone populations. These populations have already been in receipt of earlier post meltdown, Fukushima doses from the Marine environment and the proposed release of will only exacerbate this point. It is a fact that Japanese nuclear authorities have, have not researched the historical impacts on these, on the holiday to distant coastal communities and their environments. And this strongly implies that they will not conduct any such investigations after dumping the trippy aged water as proposed, but he's groups along the Honshu coast have already abandoned by nuclear science. And it seems highly likely that they will soon be sacrificial victims to the nuclear industries need and desire to get rid of focus. millions of gallons of charity aged water. Thank you for listening.

Libbe HaLevy

02:21:02

That was UK based, independent Marine pollution researcher and consultant. Tim dear Jones we'll have a link up to the video of this presentation, which was done for USAA mono dash net on our website, nuclear hotseat.com under this episode, number 5 46 among the ongoing international response South Korea on Friday, November 28th, expressed concerns over Japan's assessment report about this plan, radioactive water release from Fukushima Daiichi into the Pacific ocean. The Korean government voiced regret that Japan has unveiled a report based on the premise that it will release the radioactive water. The south Korean government said, we also express concerns over uncertainty about the impact on humans and the environment that the discharge we'll have. Chinese scientists have mapped out the potential global effects of the Fukushima discharge, suggesting that the contaminated water, if poured forth as planned, may sprawl onto the entire Pacific ocean within 10 years and note that the Pacific ocean is not a separate entity unto itself.

Libbe HaLevy

02:22:14

We don't have seven seas. We have one body of water with seven different basins. So we're talking about the entire oceanic environment of the planet. Researchers from China's ting Hua university found that the radioactive pollutants could affect China's coast as soon as 240 days, eight months after the discharge, the polluted water would spread to almost the entire north Pacific region within 1200 days. That's close to three years before spreading southward to the south Pacific ocean and the India ocean, the nuclear elements would also eventually cause concern in north America. Noticeably polluting the west coast of the United States after 2,400 days, meaning six and two thirds years, the mothers in Milwaukee, a city within Fukushima prefecture that was deeply affected by the 2011 nuclear disaster held a rally on November 13, entitled no dumping of contaminated water into the Pacific ocean rally to protect the ocean and life.

Libbe HaLevy

02:23:21

They posted a short and very moving video of their event. And we will have a link to it up on our website, nuclear hotseat.com under this episode, number 5 46, and here in the U S there are tritium contaminated water releases planned that are of more immediate impact in Massachusetts, just this week. Holtec the company that is decommissioning the Pilgrim nuclear power station at the foot of Cape Cod told the nuclear regulatory commission didn't ask told that it plans to start discharging radioactive water from the plant into Cape Cod bay, sometime within the first three months of 2022, just one week earlier, a Holtec spokesperson said that there were other options, including evaporating, the million gallons of water from the spent fuel pool and the reactor vessel and other plant components, or trucking it to the Idaho national labs in Idaho. But nah, the Atlantic ocean is right there.

Libbe HaLevy

02:24:24

It's cheaper and it's faster us representative William Keating, a Democrat from Massachusetts said it's troubling that within a couple of days, it turned meaning the release of the radioactive water into the ocean into a shore thing. And Diane Turko director of Cape downwinders a citizen watchdog group said dumping into Cape Cod bay, just highlights the fact that the NRC and Holtec don't have a solution for what to do with nuclear waste contaminating. Our environment is part of the nuclear nightmare process. And that is immoral to which Tim dear Jones added. This is pretty damn scary stuff. Citizens of Cape Cod coastal communities should be pretty mad over this. It's clear from our work in UK waters that such radioactivity does not dilute and disperse, but actually re concentrates via bio-accumulation bio concentration and other factors and transfers from the seat. The land in Marine sea spray, Marine aerosols penetrating many miles inland and coastal flooding episodes that affect coastal agriculture land and urban settlements.

Libbe HaLevy

02:25:39

As a result, coastal communities can receive significant dietary doses of Marine radioactivity by a coastal zone. Food stuffs, contact doses from radioactivity deposited on coastal zone surfaces and inhalation doses from coastal zone Airstreams. We're talking about Cape Cod here. Tim deer Jones goes on cooling pond. Water is particularly dangerous as the irradiated fuel elements fresh from the reactor may be stored in them for many years, corroding in the process and creating millions of micro particles of hot fuel, which may spread easily through the Marine environment. I repeat his opening comment. This is pretty damned scary stuff. We'll have the second of this. Week's two features on radiation in Japan in just a moment. But first I was recently asked why nuclear hot seat does not do the usual hammering away at our distribution lists for donations on giving Tuesday cyber Monday and the like the reason I know I don't getting hit over the head with repeated email requests, even by groups I esteem and regularly consult with for content.

Libbe HaLevy

02:26:51

I do give modest donations when and where I can, which is not necessarily this time of year all in the hope that it will do some good in the same way. I trust that those of you who have come to value the information of nuclear hotseat will do the same donate. If when, and as much as you can, you know what this show offers, I don't have to hit you over the head with it. If you're listening, you know, and you also know that it is your support that keeps us going, why donate sane, people who are opposed to nuclear on any level, know that they need to know the off suppressed facts in order to take meaningful steps to stop the industry's worst impulses and actions before it's too late. Nuclear hotseat tries to provide that information every week, giving you the nuclear story you don't find on mainstream media.

Libbe HaLevy

02:27:43

And that is why not going to hit you over the head here. Just making a suggestion, go celebrate whatever holiday you're celebrating with a donation to help keep nuclear hot seat going, just go to nuclear, hot seat.com and click on the big red donate button. You can give a donation of any size or become a sustaining supporter of nuclear hot seat with a donation of as little as $5 a month. Sam has a cup of coffee and a nice tip here in the U S please do what you can now or soon. And as I say every week, know that however much you can help. I am deeply grateful that you're listening and that you care here is this week's second feature on radiation in Japan. Myra, in a way is a co-founding member of the Manhattan project for a nuclear free world. And one of the team that translated the citizens, radiation data map of Japan into English, as you will hear this study tracked Fukushima radiation throughout Japan with results. So remarkable that the Japanese language book, they polished received a major award from a journalism association. Something no non journalist written book has ever before received in this interview from nuclear hot seat, number four 30 5th of October, 1920 19. The study is revealed as being scientific, thorough, and respected by scientists around the world. And after this interview, we'll give you updated information on how you can access the study in three languages,

Libbe HaLevy

02:29:17

Out with a little background on the citizens, radiation data mapping project, how did it get started? And when did it get started?

Mia

02:29:26

After the squishy disaster, Japanese government continued to lie to the local people. They failed to provide the accurate information in terms of the radiation fallout. They provided only limited foods, measurements, or toy measurements in terms of radioactivity. So local people, people who are affected by the fallouts, not just for customer prefectures, but neighboring prefectures story to worry about the food that they are eating about the street that children play or the wild grass they pick from a mountains. So more and more, there was a movement which started mainly by mothers who are worried about lives of their children, health in lives of their children. They wanted to make sure that they are feeding the right less contaminated food for their children. So after the squishing of disaster, many independence, citizens, or paraded, right, do activity measurement level of stories were established across Japan, mothers, parents, grandparents, who worried about children's health.

Mia

03:30:40

They started asking questions like whether the food is safe, whether the soil is contaminated. And these laboratories started to measure the food in an effort to detect radioactive contamination. Now, there are 30 citizens operating radioactive measurement laboratories that are directly connected with the Mindanao data site, which is the organization that self published citizens, radiation data map of Japan. What they did was that initially these laboratories were de-centralized. These laboratories were set up in different communities. Were they in contact with each other before they set up, or this just all happened independent of each other all happening independently, sometime in September, 2013, data site was established in an effort to integrate all the radioactivity measurement data into a common platform online so that there will be one website where they can share accurate information on food contamination or soil contamination from different communities. So MI nano data site was establishing order to centralize the information so that people can go to this one platform on the website to see what's going on after this organization may not have data site was established, which is a collection of dozens of citizen operated, radioactivity measurement laboratories.

Mia

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They started the soil measurement project in October, 2014 until September, 2017. So that's like a three-year period. They started to collect data from different communities. 3,400 soil samples were collected by more than 4,000 people. And what was amazing is that they used a unified standard in collecting soil samples so that they can improve the accuracy of the data so that they can compare with the data from different communities. In the beginning, everyone was measuring in the different methods and they thought that they need to standardize measurement standards so that they can compare among each other. So Mino data site came up with this idea with the support from scientists, they used this method so that other communities can use this method in order to collect the samples, soil samples. So they conducted seminars more than a hundred seminars across Japan. They even made this like comic book kind of booklet to explain what kind of steps people need to go through in order to accurately collect foil samples so that they can practice in a certain way and send it to the laboratory for the analyzation. How,

Mia

03:33:58

How much do people pay to get this soil analyzed?

Mia

03:34:02

The beginning these laboratories did for free. I think recently sometimes starting from 2017, they are charging about 2000 yen, which is less than like $18 us dollars. So it's a nominal fee

Mia

03:34:19

And who comes up with the money to support this? Do the various groups, is this coming from individuals?

Mia

03:34:25

These us citizens operated radioactivity measurement laboratories have to have this very special device so that they can measure radioactivity in food and soil. And it's different from Geiger counters. It's quite expensive device. So people ask for donations, or sometimes people chipped in from their savings or through our donations from community members. They purchased these device and operated this kind of amazing laboratory operated by citizens.

Mia

03:35:06

It's an astonishing process to realize that regular citizens, mothers, parents, who are concerned have been out in Japan and over a three-year period of time, taking these samples in such a scientific way, that you're getting an accurate map of what the radiation is throughout this region. How far away from Fukushima were the samples taken, how many areas were covered and what are some of the findings that came out?

Mia

03:35:40

This English edition, which was published in September, was based on the Japanese edition, which was published in November, 2018. The original Japanese one has 200 pages and it shows the contamination map of 17 prefectures. So Japan has 48. Perfectors so 17 prefectures in Eastern pan chills, almost like one-third of the main island of Japan. So not just Fukushima professors or Miyagi professors or touching your professors, but each chose the contamination map. A soil sample is the word collected from Canada prefecture, even in Tokyo, most of the Eastern pan were covered.

Mia

03:36:26

What are the findings? You said before that the Japanese government's announcements about radiation findings could not be trusted. What has been found in this three year study and how different is it from what the Japanese government has been putting out?

Mia

03:36:44

The reason why they started this soil measurement project was simply because government didn't do the soil measurement project. They

Mia

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Didn't do that at all.

Mia

03:36:54

They did only in limited location in Fukushima prefecture and select the locations. But that's it, as you know, that already, as you pull out affected, not only squish my perfectionists, but other perfect years, including Tokyo, which was downside of the wind, people were worried about the soil contamination in those prefectures and what the Japanese government did after Fukushima disaster was that they measured soil contamination using plain 150 to 300 yards above ground. And they estimated the soil contamination, which is just an estimate. And they didn't even take soil samples from neighboring professors to let local communities know how contaminated their communities on

Mia

03:37:50

That's insane. But of course, it's in the government's interest to hide this and normalize it as much as possible, which we'll talk about in a moment. Yes.

Mia

03:38:01

So local people are outraged because more and more, they started those mothers. Some of them, they don't have a college degree or science background. They started to do some research and found out that some countries from the Soviet union conducted foil measurements after the channel disaster. Like for example, in Russia and Bella Lewis, they issued this radiation Atlas, which shows the estimate of radiation contamination decades after the disaster. So they also enacted this challengeable law, which is known as a social protection of citizens, exposed to radiation due to the disaster of Chernobyl nuclear pipeline. And according to this law, which was enacted about five years after the challengeable disaster, they this, that needed evacuation zone. And they recognized right to evacuate based on the soil measurement. So government, these governments conducted soil measurement when Japanese government didn't after the Cushman disaster. So that was a piece of information that people in Japan were frustrated when the former Soviet countries did a better job in terms of enacting codifying some social protection for affected people,

Mia

03:39:31

Looking at the map, which is both on the cover of the English language booklet. And also there's a clean version inside that doesn't have the writing over it. What's shocking is how many areas that have been tested are showing extremely high levels of radiation. You can tell by the colors of the dots from the various places where the radiation has been tested and that some of the strongest radiation shows many, many miles away. I would say hundreds of miles away from Fukushima itself was that surprising, was that expected and exactly how dangerous is that

Mia

04:40:18

Tokyo is about 200 miles away from a squishy mud Daiichi nuclear power pipeline. It is like a distance from New York city to DC. So it's not like thousands of miles away from squishy on Daiichi, but these maps shows something that Japanese government could not provide. And also the map shows that Japanese media could not report on this type of investigation. So I think it's so significant and inspiring that local citizens collective collectively able to create this contamination map when Japanese government continue to lie and downplay the consequences of the fishermen disaster and the Japanese media failed to provide investigative journalism by sending their people to investigate on this kind of information. What we see from this booklet is amazing.

Mia

04:41:24

How is this information being disseminated in Japan? You say that it's a book of more than 200 pages. How has it gotten out? And has it gotten out to the general public?

Mia

04:41:38

Yes, initially they started collecting donations through crowdfunding before they started this soil measurement and projects. They had this, that last, that I'm assuming a union country created was something that they wanted to do. So they were able to gather, I believe that a 50 to 60,000 us dollar worth of crowdfunding in Japan, and they published Japanese booklet, all colors, all pages in color, 200 pages. And it was just in November, 2018. Initially they were hoping that maybe 2000 copies will be sold, but after the book was published, they gave out some copies to those who supported the crowdfunding and people started to order because they really loved the book. So in two months they were able to sell more than 11,000 copies.

Mia

04:42:42

Is it available in bookstores or only online it's available?

Mia

04:42:47

Well in selected locations in Japan, in bookstores and also online stores, including Amazon, Japan, but unfortunately they don't sell outside Japan.

Mia

04:42:58

How is the English language booklet, which is admittedly much shorter? It's about 16 pages. How is that being made available to English readers?

Mia

04:43:13

So what happened was that Rachel Clark, who is one of the core members of Manhattan project for nuclear free world, she reached out to me nano data site, the organization that collectively worked on creating the map and publishing the Japanese version. Rachel gathered a team. Rachel was a coordinator and a translation was done by Stephan and editing was done by Tony and Karen. And I was part of the team as a advisor and we are happy to be able to assist in the translation process so that the English booklet was published by me nano data site in Japan. And unfortunately it's not published here in the U S but we have some copies,

Mia

04:44:03

The booklet, even though it's a condensation from the Japanese 200 page book in the 16 pages, you managed to get an astonishing amount of information, not only about how this came together and the groups that did it, you have a chart and photographs and an explanation of how to take these kinds of soil samples. And you also print full color math that push out the data. So we get to see not only what the contamination looked like in that three-year period of time, but also what it is projected to look like in 2020, and then 10 20, 30, and 100 years after the disaster began on March 11th, 2011. And I must admit that the intensity of the radiation that is shown the results of this are shocking. Were you surprised to see how the contamination was going to linger? Was that expected? And has there been any response to that set of projections

Mia

04:45:14

In terms of the map for a July, 2020? I heard that, I mean, none of data's, I received many increase from overseas about radioactive contamination at the time of the 2020 Olympics. So that's why they decided to have a map which shows the estimated value of radioactive cesium 1 37 in July, 2020. And in terms of the extent of the radiation map or radioactive fallout, I will say that the figure you see is conservative. I think the situation is a lot worse than this because the soil measurement project was done until September, 2017. And I think that there were a couple of incidents after that, where radiation was leaked from the crippled nuclear pup line. So this kind of incidents were not counted in the contamination map in this booklet. So I'll say that the speaker is conservative. I think the situation is worse than the meaning of data sites data.

Mia

04:46:32

Has there been any official government response to the data map and the book, or have they interfered with your work in any way

Mia

04:46:42

That I don't know because I'm not the one who was part of the measurement project, but I know that our recently there was a controversy when the Korean ruling democratic party issued a controversial map of some of the locations that we'll be hosting the Tokyo Olympics. And based on this controversial map, the Korean media said that this was based on mean on data sites, data, but actually it was not. So when this article came out from the Korean media, Japanese government use this opportunity to discredit me on a data side, saying that all this data came from civil society and therefore it's not accurate.

Mia

04:47:30

The Japanese government is of course flogging the 20, 20 summer Olympic games as a public relations tool to convince the world that everything is all right. And it's safe regarding radiation from Fukushima throughout Japan. Yep. Yep. This study, this citizens' radiation data map of Japan absolutely contradicts that perspective. What are the implications of this study and the booklet and the book to the Olympics?

Mia

04:48:04

We know that prime minister seems though they're describing 2013, that the is under control, but actually far from under control, we have to keep in mind that at the crippled nuclear top-line execution, modality is still releasing radioactivity into the air, into the groundwater. And they have this 1 million metric, tons of contaminated water in the facilities, which they don't even know what to do. And the recent news was that Olympic torch relay will start from GA village sports complex in Fukushima, which is just 10 miles from the cripple nuclear pipeline and J village sports complex used to be the hub for decommissioning process decontamination process for the crippled pipeline. So they put the low-level radioactive waste to J village until 2017. It is problematic that this site was selected as a place to start the Olympic torch relay. And it also, I think more than 25 municipalities in Fukushima will be holding a torch relay event and nine of them, or within 30 miles from the plan. We also know that softball game will be held in Fukushima city. One baseball game will be held in Fukushima city as well. So there'll be exposing athletes to radioactivity that is really concerning. Have you been

Mia

04:49:48

Tempted or has there been an attempt to get copies of either the book or the data map to the international Olympic committee to let them know what the real situation is?

Mia

05:50:01

No, I don't think me non datas. I had done that and I don't know any organizations that have done that, but I think that that's my, one of the options that we can do to raise awareness. What are those?

Mia

05:50:15

The things that I find shocking, if not horrifying is that the IOC, the international Olympic committee is so concerned about heat issues during the summer that the marathon that was supposed to take place in Tokyo has now changed venue to Hokkaido. And yet they're doing nothing regarding radiation except to tell South Korea that they are overreacting. If you could say something directly to an athlete or even a spectator planning to come to Japan for the Olympics, what would that be?

Mia

05:50:52

The Fukushima disaster is not over, it's an ongoing crisis. And we don't know which part of the communities in Tokyo or Kushima city has. Hot-spots we can ask feel we can taste, or we can assay read your activity. That makes us very difficult to visually show two spectators or those organizations, the extent of the nuclear disaster. But this map could be a way to show that radioactive contamination from squishy Mount Daiichi affected so many communities, not just super Shima prefecture. And I hope that this information will give you some. You will be able to make an informed decision based on this information, is

Mia

05:51:43

This radiation data map, is this a one off or are the tests continuing? And will there possibly be an updated version in the future?

Mia

05:51:54

Do you work continuing this type of soil measurements and hood measurements? So if you go to website, you can see not only disloyal measurement data, but also more than 16,000 cases of food measurement data. And they also check the water quality from ground water, tap water, I believe, and other environmental samples such as Ash river and so on. So they do more than foil measurements and you can go to their website, but I'm not sure whether it's available in English.

Mia

05:52:31

Is there anything else you would like to add about the citizens, radiation data map of Japan and the project that brought it to fruition? Yeah.

Mia

05:52:40

This inspiring book fled won multiple journalistic awards, including 2019 Japan, Congress of journalists, our work, which is amazing because w just regular citizens was able to achieve this kind of procedures, a word, which is usually given to groups or individual with excellent journalism activities. And irony is that journalists or corporate media could have done this because they have resources, financial resources, human resources to conduct this type of large scale investigation, but they fail to provide information for the people. So I like to emphasize that it's not just the government, but the media after the Cushman disaster self regulated, what they informed about radiation related news so that people in Japan or not, well, he formed in terms of the extent of the squishy Mt. Disaster.

Mia

05:53:42

The radiation data map provides very clear instructions along with pictures, and even a graph showing soil depth of how to take soil samples. Could this process of testing be used in areas such as those around the satis Susanna field laboratory near Los Angeles was contaminated or the Tri-Cities area around the Hanford site or the Savannah river site in South Carolina, or any other suspected or known to be contaminated nuclear site?

Mia

05:54:11

I think what we see from this booklet is that something that could happen anywhere outside Japan, if there is a nuclear disaster, also there's so many communities that were affected by radioactive contamination due to nuclear testing leaks from nuclear weapon sites, contamination from nuclear power plants or waste sites and our nuclear disaster. So we can use this inspiring initiative to start a global movement, to visualize contamination level in our communities and compare with other communities. If we can all use a unified measurement methods like Japanese people did, and you know, this kind of initiative could be adopted in other communities globally so that we can visually create a map which could have impact on educating local communities, local environmental groups, elected officials, and concerned citizens, especially when we have this amazing initiative of green new deal and struggle against climate crisis. People are more and more interested in learning more about solutions. And we have to tell elected officials and concerned citizens that nuclear energy is not a solution to climate change. And I think that this kind of map could give them some visual idea as to how contaminated we are and what are we going to do with it? Because waste issues, contamination issue is happening everywhere.

Mia

05:56:07

And of course, we will link to the various sites where you can purchase a copy of the digest edition in English. It's the work of the citizens who created this data map and people like yourself and Rachel Clark and the others who are on the English language committee who have made it available to those of us here in the United States. It's an invaluable contribution to what we know about Japan and about the spread of radiation and the ongoing risks.

Mia

05:56:44

I just wanted to say that I'm just happy to be part of the team to make this English edition possible. And I'm very proud that Rachel Clark, Tony Sahara, Karen, and Stephan, did an amazing job assisting the translation process so that now there is an English edition so that it could be translated into different languages in Europe or Africa or other continents. I think he has so much possibility, and I'm just happy to be here.

Mia

05:57:16

And we're happy that you were part of it too. And we look forward to getting further updates from you. What is happening not only with radiation in Japan, but what is happening with this report and anything we can do to help you with it, any information you want share, we will be happy to do it and have you again on nuclear hot seat for now. Thank you for being on this week's show Marie in a way, thank you so much.

Libbe HaLevy

05:57:43

That was muddy in a way co-founding member of the Manhattan project for a nuclear free world. And one of the team that translated the citizens' radiation data map of Japan into English, the English digital version is available on Amazon. And it's free. If you have Kindle unlimited residents in the U S may receive a booklet by first-class mail. And there is a French version that is available in the EU. We will have links to all of them up on our website, nuclear hot seat.com. Under this episode, number 5 46, this has been nuclear hot seat for Tuesday, December 7th, 2021. If you'd like to get nuclear, hot seat delivered via email every week, as soon as it posts go to nuclear, hot seat.com. Look for the yellow box, put in your first name and an email address. You'll get it every week. And if you appreciate weekly verifiable news updates about nuclear issues around the world, take a moment, go to nuclear, hot seat.com and find a way to celebrate the holidays with us. You will certainly appreciate anything you can do. This is Leiby Halevi of hardest street communications reminding you