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Libbe HaLevy

00:00:01

Nuclear Ukraine and beyond while fear of a nuclear bomb attack by Russia against Ukraine has ramped up the beginnings of a new ban, the bomb movement, especially among millennials new to the subject. There is an even greater nuclear threat in Ukraine and actually anywhere there is a nuclear reactor. There is that threat and there are more than 400 of them on earth all over the place. But don't take my word for the problems. Listen, as a genuine expert on nuclear matters tells you

Paul Dorfman

00:00:37

What we've seen in Ukraine is essentially the weaponization of civil nuclear. Something that I and others have been discussing for many years now and far from it being a sort of any form of advertising for a civil nuclear. It's a clear admission clear statement of fact that civil nuclear can be a very real and very D Drew's target.

Libbe HaLevy

00:01:03

Well when Dr. Paul Dorfman, founder of the nuclear consulting group at a trusted European source for media and government tells you that every nuclear power reactor on the ground is a potential weapon of mass destruction. You start to realize that even if you Ukraine, the does seem to be on the other side of the world from you, it is, but one place that there is a giant uncomfortable seat that unfortunately we are all stuck in

Announcer

00:01:35

New Claire hot seat. What are those people thinking? New Claire hot seat. What have those boys been drinking? New clear, hot seat. The is sinking. Our time to act is shrinking, but the activists are licking new hot seat it's de bomb.

Libbe HaLevy

00:02:05

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 libi Hala. I am the producer and host as well as a survivor of the nuclear meltdown at three mile island, just one mile away. So I know what can happen when those nuclear so-called experts get it wrong. This week, we have a tremendously informative talk with Dr. Paul Dorfman. He is founder of the nuclear consulting group, a member of the Irish government environment, protect a member of the Irish government environment protection agency, radiation protection advisory committee consultant to green peace, environmental trust. And if I listed all his qualifications, there would be no time for the interview. We'll be discussing EU energy politics, Russian uranium, and the importance of using social media to present and strengthen our talking points. We will also have nuclear news from around the world, numb nets of the week for outstanding nuclear bone headedness, and more honest, nuclear formation then got mentioned on the Oscars, let alone got slapped.

Libbe HaLevy

00:03:24

All of it coming up in just a few moments today is Tuesday, March 29th, 2022. And here is this week's nuclear news from a different perspective. March 28th was the 43rd anniversary of the new nuclear meltdown at three mile island in Pennsylvania with everything going on in Ukraine, there has not been the necessary time to create a special show for this sad anniversary. So nuclear hot seat is honoring this year's three mile island, 43rd anniversary with a link to last year's three mile island special anniversary show for the 42nd year since it happened that's episode number 5 0 9, and we will link to it on our website for this episode, nuclear hot seat, number 5 62, over to Ukraine where Russia has again, shelled the neutron source subcritical nuclear facility in hard, the Ukrainian eight nuclear regulatory inspectorate emphasized that the possibility of new damage to the nuclear installation remains high due to the constant shelling.

Libbe HaLevy

00:04:30

The agency, once again, stressed that the neutron source nuclear facility like any other nuclear installation is not designed for operation in combat conditions and warn continued shelling of the site can lead to severe radiation consequences with contamination of nearby areas. The director general of the international atomic energy agency, Rafael Mariano Grossi said in a statement that the conflict in Ukraine is putting you cranes, nuclear power plants, and other facilities with radioactive material in unprecedented danger. He went on, we must take urgent action to make sure that they can continue to operate safely and securely and reduce the risk of a nuclear accident that could have a severe health and environmental impact. Both in Ukraine beyond gross admitted. There have already been several close calls. A new article in the bulletin of the atomic scientists asks the question could an attack on Ukrainian nuclear facilities cause a disaster greater than Cher noble.

Libbe HaLevy

00:05:39

It responds to its own question, possibly re Ash's military attacks on Lizza plant raised great concerns about the possibility of nuclear accidents and to illustrate the possible damage from a military attack on a nuclear power plant, the bulletin of atomic scientists, simulated and analyzed hypothetical releases from a core meltdown and spent fuel pool fire at one unit Zappia one, if an attack by missiles or artillery had disabled cooling systems there cooling system vulnerabilities were explored in depth by Arnie Gerson, chief engineer at fair wind's energy education on episode number 5 59, we'll have a link up to the bulletin of the atomic scientists article on our website, nuclear hot seat.com under this episode, number 5 62, a former chief engineer at the Tru noble nuclear power plant has condemned as cowardly. The international atomic energy agency is refusal to criticize Russian aggression against Ukraine's nuclear sites. Nicholas Steinberg accused the IA E a of having their quote tales between their legs and being afraid to say aloud.

Libbe HaLevy

00:06:51

The names of the criminals who have taken the world hostage. Mr. Steinberg, now 75 came to chin noble chief engineer in may of 19 86, 1 month. After the reactor exploded causing what is listed as the worst nuclear disaster in history in talking with MIT technology review too much stated that fresh fuel is much less dangerous than spent fuel, which has accumulated an enormous amount of vision pro, which are very radioactive, such as iodine, cesium, and strum. If there was any damage to the spent fuel assembly stored at Zaia, it could result in an enormous radiological emergency comparable to what happened, incher noble. He said buildings that hold this fuel are designed for. What's known as the quote maximum projectable accident, which is considered the worst case scenario, but they can't withstand anything beyond that. And none were built to withstand a war zone. There are also around 20,000 spent fuel assembly stored at the chin noble site that still contain a lot of long lived radio. Nuclides like cesium and strum. These articles and others will be linked on our website and keeping all that in mind. Here's

Announcer

00:08:08

Nuclear, hot seed, nuclear hot seed, nuclear hot seed, none sound awake

Libbe HaLevy

00:08:17

For three days, April 20th through 20. The nuclear industry is holding a symposium on problems of modern nuclear power, the 16th international scientific and technical conference. And where will this conference on the problems of modern nuclear power take place in carve Ukraine? That's right. Car where a nuclear research facility has been shelled, not once but twice. And what are some of the problems of modern nuclear power being addressed, increase safety and efficiency of nuclear power, nuclear radiation, and environmental safety in the handling of radioactive waste and spent nuclear fuel, public relations and stakeholder engagement in the nuclear industry. All of it so timely, given the nuclear dangers on the ground posed by reactors in Cher, noble Zappia and three other nuclear sites in Ukraine, whoever is behind this and sent out the notification of it in the last week. You indeed are this week's

Announcer

00:09:29

Nuclear hot seed. None not sound week

Libbe HaLevy

00:09:33

In the us. While sanctions have come down targeting Russian oil, coal and liquified gas imports at the behest of the us nuclear industry lobby the nuclear energy Institute, the white house has not sanctioned Russian uranium, which accounts for nearly 50% of the nation's atomic fuel supply. Now four Republican senators have introduced federal to ban the import of Russian uranium with the condition that we steeply ramp up the nation's domestic uranium mining and production at us taxpayers expense while expanding violations of sovereign indigenous people's rights and states' rights. We'll have more on this story next week, we'll have this, week's featured your view in just a moment, but first nuclear hot seats, new website is live so many improvements. The pages load faster, the content is way more searchable. And now we have transcripts there's a more robust and flexible player for each episode. There's a media section for past content, even a humor page.

Libbe HaLevy

01:10:39

And what you see is only part of what we get because we've installed state of the art behind the scenes functionality to help the show its topics and interviewees be found on Google it's search engine optimization on steroids. And it's working with page. You use trending steeply upwards as worries about Russia, have the world looking for nuclear information and finding it at nuclear hot seat. But there's a problem. As you might imagine, this website upgrade has been very expensive, a few special donors, step forward to help with the heavy lifting, to get it going for which I am deeply grateful, but expenses have far outstripped original projections. And from this point on monthly running costs are double. What they have been my feeling is our movement is crucially important to the world and a nuclear hot seat is an important part of our inform. So yes, it's worth it to do this.

Libbe HaLevy

01:11:42

And yes, your help is needed to keep this new improved website up and running. So the time to donate to nuclear hot seat would be right now, it's easy to do. Go to nuclear, hot.com and click on the smaller, but still red donate button. You can do this as a one time donation or set up a recurring donation of as little as $5 the month, the same as a cup of coffee. So buy nuclear, hotseat a cup of coffee a month, so we can help you understand nuclear issues on a weekly basis and know that whatever you can do to help, I am deeply grateful that you're listening and that you care now, here's this week's featured interview. Sometimes you learn about good people because they posted on social media and somebody saw that post and forwarded it to you. I'm grateful to a Gerson of Fairwinds energy dot because he's the one who turned me onto today's guest and it all happened because of tweets.

Libbe HaLevy

01:12:40

Take note. That point will become important. Dr. Paul Dorfman is founder of the nuclear consulting group, a member of the Irish government environment protection agency, radiation protection advisory committee consultant to green peace, environmental trust. And if I listed all his qualifications, there would be no time left for the interview. As you will hear, we discuss EU energy politics, Russian uranium, and the importance of using social media to present and strengthen our talking points to push back against the nuclear industry propaganda machine. More about that later I spoke with Dr. Paul Doman on Thursday, March 24th, 2022, Dr. Paul, Doman welcome to nuclear ed.

Paul Dorfman

01:13:32

Thank you, Lu.

Libbe HaLevy

01:13:33

Let's start out with a little bit it about you. What is your background?

Paul Dorfman

01:13:38

I started late. I did a degree. Then I went to do a PhD looking at nuclear risk at the same time. Perhaps interestingly enough, I was pointed a secretary of full blooded UK scientific advisory committee, examining radiation risks from internal emitter. That's where the debate is the most complex questions of complex radiation, biology, complex, radiation, epidemiology, I'm chair, and founder of the nuclear consulting group. I've been asked to advise the French government on the decommissioning of its laid up nuclear fleet. I am associate fellow at university of Sussex science policy research unit I'm committee, member of the Irish government environment protection agency, radiation protection advisory committee, and you know, a few other things.

Libbe HaLevy

01:14:32

You founded the nuclear consulting group in 2007. Why did you do that? And what is it and what is it intended to do?

Paul Dorfman

01:14:42

Basically, I saw that we all saw that UK was going in the wrong direction that something was happening, you know, that, you know, that Blair said nuclear was back with the vengeance and you know, something was going on here. So I thought it's important to try to bring people together, act collectively and relatively high level academic people together because it hasn't necessarily, you know, on a sort of a ad hoc sort of basis, you know, a bit of a chance that had happened really, and actually funded by Quakers. The very limited funding we have came from Quakers from Joseph frat tree's charitable trust. And after that, it kind of grew quite organically. There no rules basically, but it does seem important to have a sort of consider amount of a expertise. So it's ended up basically a, a, a virtual Institute of punching well above its weight.

Libbe HaLevy

01:15:39

How is the group utilized and who utilizes it? Is this the mainstream media, government academia, all of the above

Paul Dorfman

01:15:48

A significant number of, of the people in the group are high level academic X. So, you know, we all have our, you know, day jobs as it were. And we all largely think alike in terms of nuclear. I mean, we all do think alike in terms of nuclear. So that basically it's a very one could argue a very significant body of high level academics, who not for reasons, but for evidence based reasons believe, think, understand that nuclear is not the way forward. There's that trench to this organization, this virtual Institute, then of course, there's questions of communication we've learned in the last year that nuclear have a huge PR push pre and post cop enormous gin. And that's to a certain extent affected policy heaven knows why big concentration is, has been about communication, precisely that communication, communicating with the press communication with the media communication with people and communication with policy, I'm asked to advise policy and policy makers, not the current government, but certainly those on other front benches in the UK. And I believe the same is true for, for other people in other countries for nuclear consult. So there's policy, there's press communication and there's academic communication. I, and to a certain extent, it's just a holistic hole basically. And, and really it's just coming about by chance.

Libbe HaLevy

01:17:21

I'd like to get into the topic that really attracted me through your tweets. You tweeted that even though Russia's war in Ukraine is wrecking havoc on fossil fuel supply chains, uranium deliveries for nuclear power remains untouched, at least for now to what would you attribute that?

Paul Dorfman

01:17:40

Well, the reality is that the Russian nuclear corporation rose Adam has a sister corporation in Kazakhstan and rose Adam controls this sister corporation. So in other words, Russia controls Kazakhstan, which of course it does. So in real terms, this isn't up for grabs. This is true in real terms, Russian controls, uranium comprises 42% of all worldwide global uranium supply to power worldwide nuclear reactors, 42%. It also controls 20% of all uranium feed stock for European reactors. And it also controls the kind of those, the, the high tech stuff that guys like bill gates wants to power as well too. America has not banned a U imports from Russia as we speak.

Libbe HaLevy

01:18:39

That was my next point. Is it the need, especially in small modular nuclear reactors, I don't call them small modular reactors, the small they're in control of the tall. And that's one of the points I wanna get to is how we take control of the communication, but in small modular nuclear reactors, it's my understanding that only Russian uranium can be used for the fuel. This is particularly true with bill gates. Do you think that is behind the lack of a ban sanctions against Russia for nuclear at this time?

Paul Dorfman

01:19:17

I think that's both true and not true there kind of ways around it. I don't think that the, the so-called small modular reactor issue is absolutely pertinent in terms of Uran at the moment, because there is no functioning, small, modular reactor, therefore it doesn't need that fuel. All so-called SMRs are still, you know, largely in development and a long, long, long, long, long way from deployment. So, no, I don't think that the limitation of uranium from Russia is a small, more modular reactor phenomena, and there could be potential ways round it in the long term. But then when one talks about small modular actors, you're getting into a whole debate, which I'd be happy to have with you.

Libbe HaLevy

02:20:06

We'll get into that in a moment. I wanna follow the uranium trail for now and the talking points, the misconceptions that have been really surgically implanted by this enormous nuclear industry PR campaign to manipulate and manage and create consent, even if it would not be there. Otherwise in the recent past E U has allowed in its taxonomy for green energy has allowed nuclear to be included in that, which seems to be completely counterintuitive. How did that happen?

Paul Dorfman

02:20:46

It was a long and torturous process and one that I involved in and fought. What happened was that an original scientific working group was set up to discuss the issue was nuclear renewable or not.

Libbe HaLevy

02:21:00

How long ago was that?

Paul Dorfman

02:21:02

Four years ago, maybe say three, four years ago, it was called the wag. W E G I can't remember the, the name that the acronym stands for. So the original group, which is a, in a high tech scientific group, came up with saying, no, of course it's excuse me, what? Excuse me. Of course it's not. So the European union being the European union then said, oh, well, okay. I know what we'll do is we'll set up another group to see if their, if our original group's findings were correct or not. And, and because basically underlying this, okay, is obviously the fight between Germany and France. That's what this is all about with Germany saying, no, it's not. And Fran saying, yes, it is. And Europe people in Brussels, the bureaucrats and Russells saying, well, look, we have to, what are we gonna do now? So they came up with this idea of, of finding another group whose acronym I forgotten, who then reported that.

Paul Dorfman

02:22:05

Well, it could be, I dunno, why not sort of thing. And it gave a whole set of reasons. And if one looks at those reasons, they really don't stand up to sort of scientific interrogation. And at that point, basically it becomes a political discussion and irresolvable political discussion between France and Germany. And at which point Europe says, well, look, everybody then expected for there to be kind of not a green, not a red, but an orange sort of light as it were. Well, you kind of do what you want to do. We're not really gonna say much about it, but actually what happened at the end of the day, unfortunately, is that EU is largely the, the bureaucracy around the EU, largely largely. Pronuclear actually, if you look at it in the whole, and there's a lot of influence there, you know, there's a lot of lobbying going on, which I've involved in trying to counter for many, many years, and it's hugely powerful.

Paul Dorfman

02:23:05

And that lobbying really sort of took off and in the end, the discussion and ended with, well, okay, you know, let's say that nuclear is sustainable with the caveat that you can somehow get rid of the waste, or that you have a mechanism with, which you can get of the rid of the waste by a date. I don't know, 20, 45 or 2050. I don't know why that date and also this of an idea that you use slightly more sustainable fuel, or slightly less dangerous fuel, which again is sort of very anomalous cause nobody really understands what this fuel is or could be. So as usual, it's the usual sort of European mess or not a European, but a UMAS which leans towards nuclear that, you know, Brussels tends to lean towards nuclear. And so largely that's what happened. And then of course, Austria, Luxenberg Germany, the backing of the whole other sets of nuclear, less positive states that are come on now, you know, you playing out, but in legal terms, nobody has launched a significant legal challenge to that sort of definition. So we're left in this, frankly, you know, this extraordinary position where for some reason, and no really quite understands why nuclear has been deemed vaguely sustainable.

Libbe HaLevy

02:24:32

It's been a horrible role model because of course the industry here in the United States, world nuclear news and the like have lined up in force behind that to just hammer it in. Is there any way you can foresee where this determination, this green taxonomy can be reversed or paused, or as you said, perhaps with a legal challenge,

Paul Dorfman

02:24:58

Others and I have really fought this all the way. I mean, this has been a real battle, you know, for some years now. And I think at the moment, we're in a, a position of stasis, but then again, there are words and there are words, one missile that goes stray in Ukraine could change everything. So, no, I don't think that at the moment, I don't think that taxonomy will change. I think that we're in a position of stasis. And I think, think that you could argue that it's a battle lost, but it's just something that we have to live with for the time being

Libbe HaLevy

02:25:33

Speaking of Ukraine, let's shift this a little bit. The nuclear industry is working very hard to spin the situation there, to their advantage saying, well, the nuclear reactors are still operating and there hasn't been a disaster and everybody's downplay what the risks have been. What's your take on this attempt by them. And what do you see as the genuine risks in Ukraine as regards the nuclear reactors and the Cherno site?

Paul Dorfman

02:26:03

Certainly not over it is a shooting wall and it is a human atrophy, but when they're attacking the largest nuclear plant in all of Europe with six operating reactors, I, and many others, perhaps didn't sleep for a couple of nights. The idea of munitions firing into nuclear plant is unthinkable. It's almost as unthinkable as a nuclear proponents, spinning this into a good story for prone nuclear. It is champion in its hypocrisy. This idea that any idea that Ukraine in any way suggests that nuclear safe is an appalling redaction of truth. And, you know, as I say, the risks are far from over. What we've seen in Ukraine is essentially the weaponization of civil nuclear, something that I and others have been discussing for many years now and far from it being a sort of any form of advertising for a civil nuclear, it's a clear admission, clear statement of fact that civil nuclear can be a very real and very dangerous target.

Libbe HaLevy

02:27:24

You spoke about languaging and getting messaging out. How can we coordinate to get that message out? Because it is clear that any nuclear reactor on the ground is potentially a target in war for terrorists, for crazy people. What can we do to convince the world not to build any more Nokes

Paul Dorfman

02:27:53

Yeah, good question. I think it's important to look at things in the round. First of all, it's important to talk about how things should be before saying, you know, let's stop doing that. It's important to invest in hope, realistic hope and realistic ways of powering our societies. Now, for example, the international energy agency, which is blue ribbon, you know, everybody believes in the international agency say that by 2026, we'll have globally 5,000 GTS of new renewable capacity online, which in electrical terms, in forms of electricity is equivalent to total fossil fuel and nuclear combined combined. So there is no question, but the renewable evolution is here. I mean, it's not a debate anymore. There is no energy professor, not a nuclear it's professor, but an energy professor will tell you otherwise it is renewables. It's a feta. We know this now in terms of cost, you talk to ARD again, gold ribbon, you know, in terms of economics, solar, and wind about, I dunno, quarter fifth of the cost of nuclear.

Paul Dorfman

02:29:06

The number is let's give the comparator about 20, 30 bucks per megawat out for solo wind, a hundred forty five hundred fifty bucks for new new construction. That's the difference. That's actually the difference. These are accepted numbers. These are not pulled out of green piece. This is LA out. So economically, and also until of how quickly it can be done, especially in the context of climate change. The game is over in real terms, the game is over. So we're left with nuclear PR and nuclear industry lobby and all of the power of nuclear, which is very great. Actually, then that goes into questions, well, SRS or this fusion or this and that, but that's a long debate. Even that doesn't hack it. The reason why none of this hacks it is the key issue is climate and climate change. Now we know now that I P C C, which basically reviews older research, saying what we all know, cause we've all been looking at the fundamental research with the last few years.

Paul Dorfman

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Basically we need to change and change quickly. There is no way on earth that nuclear will help with that. It cannot even replace itself by say 2050. You know, when all of these aging actors come offline, there is out absolutely no way. There's not the money, not the capacity, not the person power, not the will to do so. It takes between 10 and 15 years for a nuclear rat to come online. These days, it is just to slow. And the same is true with SMRs. Now, currently, what does nuclear do? It does about, I don't know, between three and four point percent of global energy, which is, excuse me, but that's not. I mean, you know, for all the, the fuss that nuclear make about things, it's not, it's just not that much. So that if you were to then to try to, to make that more, in other words, basically, to try to replace at what you have to do.

Paul Dorfman

03:31:03

I mean, for example, a quarter of all France's nuclear is now offline. As we speak 15 reactors are offline due to safety and security problems because of aging basically. So you cannot replace the amount of reactors that we have even now by 2050, there's there's simply not the capacity to do that. So to capture to the chase, the renewable evolution is here. It costs a fifth of the price. It can be deployed incredibly quickly. And when one thinks about energy, one each think about energy in the round. We've been talking about supply, which is what nuclear is basically just supplying stuff. When you talk about energy electricity, you talk about supply, about transmission, about use. So it's about demand side management, energy efficiency, energy management, as well too. And of course, in terms of renewables, when thinks about storage, when thinks about backup, when thinks about load, follow load, balancing interconnectors and the rest of it.

Paul Dorfman

03:32:05

So yes, we can basically, yes, we can do the renewable evolution and no, we do not need nuclear to do that, which is basically too costly, too dangerous and too late to help us with our climate problems. And there's one issue really that nuclear needs to understand very, very clearly that nuclear will be perhaps one of the first and most problematic victims to climate change. Nuclear needs to be beside large bodies of water to get the cooling and also to discharge. Now that's either by the coast, inland by river or in large lakes, large bodies of water. Now we know what's gonna happen with the, with the coast, the sea's going to rise. We know what's gonna happen with the rivers. The rivers are going to alternate between inundation and low flow and heating, which means that inland rivers may not be able to get at cooling.

Paul Dorfman

03:32:59

And then importantly may not be able to discharge because the river flow is too hot and too low. And the same is true for lakes, but within the next two decades, two decades, okay, it's looking very much like we think that sea level will be rise stepwise. We think it'll be stepwise, but that the key issue for nuclear is storm surge. We're under certain atmospheric conditions, which combined with high tides, as we've seen all across the globe, the sea just rises and just moves in land. And a number of current nuclear stations are just a few meters above sea level. And it's very likely that within two decades, current nuclear capacity will be at significant risk from storm surge ti Ingres nuclear island, basically flooding

Libbe HaLevy

03:33:51

Nuclear island. That's not a phrase that I have heard and it's certainly both graphic. And I think important because languaging and communication and especially the harnessing of social media and the power that it represents. Yeah, I think are key to us turning things around. I need to congratulate you on your Twitter presence. It was a Gerson, a far wind's energy who started forwarding your tweets to me. And then I subscribe. And it seems that you are on at least once, if not on average, I would say three times a day with new updated points. Is this something that is new to the work that you are doing, or has this been part of the plan all the way through,

Paul Dorfman

03:34:35

No, this is something that's new to the work I'm doing. And I'm hoping to gain a, a sort of a base as it were something that I just thought, well, you know, this seems to be very, very interesting. My initial sort of approach was always to go to the broadsheet press and to the media, what I found and what a lot of people have found in the last year. And it's actually quite disturbing is that, whereas before, if there was some key issue about nuclear, the BBC would turn to me and say, well, you know, come along, have a chat. The times the Telegraph, the guardian, the German press, whatever it was, you know, say, well, okay, you know, you have a go Forbes or whatever, you know what you have to say? Well, in the last year, the nuclear PR has been so great. And I'm not saying this question of blacklisting, but there's been something very, very strange. That's been going on that one has had basically less presence in the media. Now that's beginning to change now. Okay. That that's beginning to change. However, it has been worrying. And in response to that, I turn to social media in order to communicate, to talk with people,

Libbe HaLevy

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We will link to your Twitter handle on the website. And I encourage anybody hearing this to sign up because these are some of the most informative, short burst talking point tweets information flow that I have encountered. And it's encouraging because you seem to have a handle on how to phrase things so that in short bursts, we get the truth of it. I saw on the website for and CG. And we will link to that as well that you have a list from the British academy of 127 experts with huge credentials who are available to comment knowledgeably both on the Russian invasion of Ukraine. That was this specific list, but also beyond that to other nuclear, your issues as well. How did that come about?

Paul Dorfman

03:36:41

I don't know. I mean, I'm, I'm an academic and all of a sudden British academy, just put me on that list basically. So they're basically in their, in their, in their judgment, they think it's basically a good idea. It's just one of these academic things. I'm considered to be a safe pair of hands. I'm not off the wall. What I say can be fact checked, I'm a coast academic. So I'm a safe pair of hands.

Libbe HaLevy

03:37:06

We will link to that list as well because anyone in the media who is covering Ukraine or beyond that, who are looking for nuclear experts should have access to that list from the British academy, but also the list of people who you have, who are part of the nuclear consulting group. Where do you go from here? You're going to continue of course, with Twitter and with the communicating and making yourself available. But my question is how do we, who oppose nuclear for all the same reasons that are out there instead of being reactive to the assaults and the push of the nuclear industry, how do we become active as precise, opposed to reactive

Paul Dorfman

03:37:51

Precise and, and that's exactly it. And right from the start, I decided not to be reactive. I mean, right from the start, it's always a question about taking the, the forward, because one can argue endlessly with troll or you mean one can argue endlessly. The whole point is actually to make a point and to push it through there's press there's media, there's policy and there's people, and none of these are greater or lesser than anybody else. It's almost like an iceberg. You know what we see on the top or a Swan, you know, what you see on the top is not what's going on underneath and things change. And when things change, we're left with the idea, what, what on earth, what held that up? What held that straw man of nuclear up when it, you know, rather like, you know, I don't know, apartheid or the, the Berlin war, you know, why did that thing actually exist?

Paul Dorfman

03:38:42

And when it actually comes down, you said, well, there was actually very little that held it up. And there was this huge mass underneath that supported the reality of the situation. And in a sense, I think that's how people are around nuclear, largely. There's this significant sort of top of the iceberg of the nuclear PR a huge impact in terms of policy and lots of money, but beneath that is the backdrop, the reality of, of what's going on of what what's actually happening. And what's happening is the renewable evolution is here. It's far quicker, far cheaper, far more effective. And nuclear is really just a, an absolute side show. I mean, a very, very, very real side show. The problem with that side show is that it's costing us. It's costing us in time and in money. We don't have the time because of climate.

Paul Dorfman

03:39:35

And we certainly don't have the money because we need to put our money into what will work. So it's a question of actually prioritizing our choices and making those choices clear to, to press, to media, to policy, and most importantly, to people. And this one does in a sort of a buckshot way in any way that one can and in any way, that seems reasonable and viable. And I think that people get the truth of, of where one is basically. I think that people understand people who, who try to deal with facts. So in, in that sense, that's the general approach that I, and, and many others take.

Libbe HaLevy

04:40:17

And has there been any coordination in getting the message out with those who are in the renewables industry, solar, wind, geothermal, any of the others, any of those companies,

Paul Dorfman

04:40:30

People tend to be in their own sort of cards. And also they sort of, they fight their own fights basically. And people are sort of fighting their corners, which is, you know, absolutely understandable. The truth is really that the world has changed in the last eight, nine years or so. I mean, before the nuclear proponents would always renew, forget it, you know, kind of joke now across the board, across the board, nuclear proponents say, well, oh, renewables, that's the way for would, but nuclear can act as an adjunct to renewables. That's the, that's the, so argument, that's the only argument left actually. So things have changed enormously in the last eight, nine years, 10 years or so solar and wind costs have decreased, I don't know, 70% or something nuclear costs have increased. So solar and, and wind costs exponentially decreasing nuclear costs, exponentially increasing.

Paul Dorfman

04:41:28

So the argument is over the market will not touch nuclear. There's no way that the market, the finance market will touch nuclear. The only way that you can build nuclear is with massive. And I do mean massive public subsidy. So basically the public purse would have to stump up huge amounts of money. And as we've seen in somewhere in the en VO, the rest of it, huge losses, especially in terms of the early cost recovery regimes. So the reality is, I mean, the argument is over actually. I mean, it really is over all that's left is this sort of skeleton, which is sort of pushing out this PR, which is still very, very dangerous actually, you know, and therefore worth engaged with. And it has a lot of resource. It has a lot of power and it has a lot of influence. And one worries about this actually in a democratic sense, the secret democratic deficit in terms of nuclear nuclear, particularly in, in the us actually.

Paul Dorfman

04:42:30

So long story short everyone's fighting corners, the renewable evolution is here for evidence-based reasons. Nucleus says, well, maybe it can back up. So-called intermittent renewables. The reality is of course nuclears intermittent. A quarter of the French nuclear fleet is offline as we speak. Also, nuclears very bad at load follow. In other words, backing up the renewable evolution because nuclear, you switch nuclear and it runs it doesn't power up and power down well at all, it doesn't load follow. So the last thing that you want to back up so-called intermittent renewals is nuclear nuclear. Can't do that. Doesn't do that. So even its last argument is to kind of a flawed argument as well. So in a sense, what one find is one just churn out the same kind of arguments. These are just basic facts, basically. I mean, these are not really up for discussion. This is just how things are and just sort of wait for reality to set in.

Libbe HaLevy

04:43:34

If we were to create our own echo chamber, our own set of talking points, that would go out in a coordinated way because that's what nuclear does. They set the agenda and it gets picked up all over the place. And they're talking at each other.

Paul Dorfman

04:43:49

Exactly.

Libbe HaLevy

04:43:50

I know nuclear hot seat has listeners. It's been downloaded in 120 countries. There are people who listen to this show religiously around the world and we've all got access to social media. So if there were to be some kind of coordinated, here's the talking point of the week, here's the talking point of the day that we could then just upload maybe a series of, of them that we could upload on a schedule because this is, this is the way Fox built its new thing. Roger Ailes gave the talking point. If we were to do this, how might it be coordinated? How might your organization be involved? Certainly nuclear hots seat would be of service to this. How might we get our own echo chamber with talking points, coordinated talking points off the ground?

Paul Dorfman

04:44:42

That's a very interesting thought. It's certainly worth considering. It's a very, very interesting thought. It's not something that, because nuclear consult was something that sort of organically grew. It's not something that I directed or invented. It just happened basically. And then I'd sort of worked with it. I've always sort of tried to work within my own limits, but then always very happy to push those limits. I think that as Obama found key to everything is organization and collective action. So I think that if there is any route to a collective organization thought through collective organization with a certain amount of, of resourcing and also an element of presentation, as you say, week by week ongoing work, because basically it comes down to work at the end of the day. It, it just starts, it just comes down to getting things done. Then yes, that sounds like a very interesting idea. And one that potentially needs to be thought about,

Libbe HaLevy

04:45:50

I will continue to put that thought out in, in as many places as I possibly can. And yeah, hopefully include you in the process.

Paul Dorfman

04:45:58

Please do

Libbe HaLevy

04:45:59

Your communication skills are brilliant. You have these little talking points, I have little slips of paper where I've printed out what your tweets are over the course of a week. And if we could have those to draw upon, then we at least have automatic ammunition that people can use in fighting back against what nuclear does with all of its millions and millions and millions we can potentially do because of the power of social media and of the individual.

Paul Dorfman

04:46:30

I think this is very important to understand that the rules of the game is changed. And this is born out by sort of, you know, complex science of technology studies, academic, social scientific knowledge, you know, whole loads of whole loads of academic work that the, the, the scales are changing. You're absolutely right in terms of social media and in terms of output and the rest of it. So yes, this does provide an opportunity to certainly match and even outmatch pro nuclear output on this level, without any doubt. There's no question about that. Absolutely agree.

Libbe HaLevy

04:47:09

That will be pursued. Is there anything else that we haven't covered that you would like to speak about at this time?

Paul Dorfman

04:47:16

One of the many things that got me into this was questions about radiation risk and our secretary, you know, you see these scientific advisory committees about COVID and the rest of it and oh, you know, all these scientists, well, you know, I was one of them in terms of radiation risk. And the truth of the matter is, I mean, the fact is actually that when one really gets into the science, I mean really, really, really deeply into the science about radiation risk, about internal radiation risk. There is huge levels of uncertainty, very, very great, very, very significant levels of UNC. And there's a thing that has always really, really bothered me. And that's a fact you can't really dispute it. I mean, this is just a fact in terms of radiation biology, everyone talks about, you know, stuff like genomic inability theory or bystander theory, all kinds of stuff.

Paul Dorfman

04:48:05

What always, I find really, really curious is that a fun and in terms of fundamental science, and this is actually true in terms of fundamental science, there's a huge amount of complexity and uncertainty. Basically, you don't really know actually the numbers really could be out in terms of safety. It could be out by 10. It could be out by a hundred. There's no real way of knowing actually. And that's actually true. That's a fundamental scientific advice. I mean, that really is in terms of complex internal radiation. What happens when a bit of radiation gets inside you really, and truly it could be not such a good idea. And that goes on to questions of not simply about talking about gross cancers and leukemias, but you're talking about immune deficiency, heart problems, whole host of things that are really, really difficult to pin down epidemiologically. What then happens is for some reason, this complex reality is then shortcut over simplified.

Paul Dorfman

04:49:04

If you like to make a rule to get to regulation. So complex scientific reality somehow translated into regulatory certainty. So basically potential risk real risk is translated into potential certainty in order to continue for nuclear to function because nuclear, in order to function must put out radioactive pollution. It just must do that. So there's a strange paradox. It's not like a Russian doll where all things sort of fit together. It's more like a Chinese whisper when the original message gets corrupted on the way to the listener. There's a strange thing that happens that complex scientific uncertainty in and risk potential risk is somehow translated into regulatory safety. In other words, it's we probably think it's more or less. Okay. And that's curious, that's very, very odd

Libbe HaLevy

05:50:06

Dr. Paul Hoffman, this has been an illuminating discussion with you. I look forward to having a others in the future and especially picking up on the possibility of a communications network echo chamber on our own behalf until we next speak. I want to thank you so much for being my guest today on nuclear hot seat.

Paul Dorfman

05:50:27

Thank

Libbe HaLevy

05:50:27

You. Luby Dr. Paul Doman of the nuclear consulting group, we'll have a link up to it. Nuclear consult.com. It will be on the website. We'll also have a link to his Twitter post, which is a bit more elaborate. They'll be up@nuclearhotseat.com under this episode, number 5 62, and we'll also have a downloadable PDF of the British Academy's list of 127 nuclear and other experts who can comment knowledgeably on all aspects of what is happening in Ukraine. If you are a reporter, you must have this resource in your wheelhouse, the nuclear people as for the use of Twitter that we discussed. There's more of this to be reported as part of

speaker 3

05:51:16

Activists, activist, shout, shout, shout.

Libbe HaLevy

05:51:24

It's always great. When an interview pushes out beyond of what we spoke about and into a next set of actions. So, okay. It's become really clear that we who oppose nuclear need our own echo chamber to build awareness of honest nuclear talking points. This is to contradict the propaganda focused grouped money backed pro nuclear manipulations that take the form of massive public relations campaigns. And you should know that the field of public relations was first labeled and promoted by Edward bene, who was a nephew, a Sigman Freud, and he considered PR to be the manufacturer of consent. That's what the nuclear industry has been doing with its PR campaigns, manufacturing consent. And so what we need to do is have our own public relations campaign to move that in the opposite direction and manufacture non-consent for all things to nuclear. That's actually not even a manipulation.

Libbe HaLevy

05:52:33

It's just allowing people to access their own common sense in the absence of talking points that are trying to push them away from their own common sense. We are still in the early stages, but what's being explored and worked on is a program that will allow you the listeners to participate in a really important PR drive on our own behalf. The goal is to have what's called an editorial calendar for a full year. This is something that has been used traditionally in all news media. It's a list of the anniversaries that can and be used as the basis for stories, tweets, and posts. And we would also provide tweet, length talking points that could be used on Twitter, Facebook email, any place you like to reverse the surgically implanted self-serving lies of the nuclear industry in less than a week. We have an ever increasing list of activist groups and individuals who are getting involved.

Libbe HaLevy

05:53:36

We intend to come up with a series of boiler plate tweet, length posts that can be used anytime, anywhere, Twitter, Facebook, other social media email, get it tattooed on your forearm. The intent being that we have, these that are good at any time anywhere. So all you have to do is copy and paste into your social media accounts, easy peasy. We would also have some that were geared to the anniversaries and ongoing stories that we are all concerned about as well as some that we can jump into. When there's a hot story, then it's up to you, the listeners and your social media networks. And please don't give me that grown Grimmy and eye roll about social media. It is a tool that we must not only use, but master, if we're going to make progress and it's going to be made as easy as possible for you to participate, the load is light.

Libbe HaLevy

05:54:33

Just copy and paste one or two of the prewritten talking points once or twice a week. That's it sound like it's doable. I know you can do it. This is a smart audience. You know how to do these things. Now, as I said at the beginning, this is still in very early days, less than a week in, we will have details available when it's time for this program to go live. And any updates that might be applicable that you would find interesting will be reported on this show. In the meantime, feel free to do this on your own, come up with your own posts for Twitter, and then copy them over onto Facebook. The goal being that the language repeats from one platform to another, and if yours are as good as I suspect they will be, we might end up nabbing some of yours and putting them on the list.

Libbe HaLevy

05:55:24

The goal is to counter the pro nuclear big bucks, echo chamber of false information with our own echo chamber of accurate information that opposes nuclear. And as you heard from today's guest, it is people power that will make the difference and let's face it. There are more of us than there are of them. More details on this as they become available. This has been nuclear hot seat for Tuesday, March 29th, 2022. If you'd like to get nuclear, hot seat delivered via email every week, it's easy. It's the same mechanism we had on the old website. Just go to nuclear, hot seat.com, scroll down for the yellow box, put in your first name and your email address. And every week you will have an email delivered with a link to that week show and a brief rundown of some of the information that's in it. As a bonus.

Libbe HaLevy

05:56:24

When you sign up, you'll get a free chapter from my book. Yes, I glow in the dark one mile from three mile island to Fukushima and nuclear hot seat. It costs you nothing. And it's one of the great deals available online. Now, more audience participation. If you know of a S story, lead a hot tip, or have a suggestion of someone to interview, send an email to info nuclear hotseat.com. And if you appreciate weekly verifiable news updates about nuclear issues around the world, take a moment to go to our brand new website. I never get tired of saying that the new website, nuclear hotseat.com and look for our now modest size red button, click on it, follow the prompts and anything you can do will help. And we will really appreciate your support. This episode of nuclear hots seat is copyright 2022 libe and artistry communications, all rights reserved, but fair use allowed.

Libbe HaLevy

05:57:29

As long as proper attribution is provided. That means you can quote me or cite me or my guests. As long as you credit nuclear hot seat. And my guest organizations. This is levy Hal of artistry, communications producer are in host of nuclear hot seat, reminding you every nuclear reactor is a dirty bomb on the ground and holds the potential for disaster, which is why we have to get rid of them all. There you go. You have just had your weekly nuclear wake up call. So don't go back to sleep because we are all in the nuclear hot seat,

Announcer

05:58:11

Nuclear hot seat. What are those people thinking? Nuclear hot seat. What have those boys been drinking? Nuclear hot seat. The car is sinking. Our time to act is shrink, but the activists are licking new hot seat. It's de bomb.