Good evening, Lawrence. Thank you. And thanks to you at home for staying with us for the next hour. There is a ton going on in the world and in the news today.

A ton to get to this hour, including the announcement about the war in Libya that the Obama administration had been promising from the beginning but that many people doubted we would ever hear. We heard it tonight. NATO announcing that they will take over the no-fly zone command and control zone responsibilities in Libya from the U.S. military. That announcement confirmed by Secretary of State Hillary Clinton in Washington tonight.

We will have more detail on that coming up in tonight’s show, including what this means for the fast-heating-up American politics about this war. That is all coming up.

But we begin tonight with an exclusive report. This is something we have been working on for some time. You will not see this anywhere else.

All right. Do you have an air bag in your car? Depending on the age of your car, you probably do. You probably have lots of air bags in your car. You may have one built into your steering wheel, into the dashboard, on the passenger side. You might have side impact air bags if you sprung for ‘em.

If you drive every day, you probably don’t give the air bags in your car much everyday thought. But the overall concept about them is that the air bag isn’t there to prevent an accident from happening in the first place but if an accident does happen, the air bag is there to essentially limit the damage. It is your last line of defense against catastrophe.
If you crash into something head on, that air bag in your steering wheel, for example, stops your body from slamming into everything in your car that is in front of you when you drive. Again, the air bag is not there to prevent an accident from happening in the first place. It’s about preventing an accident from turning into a tragedy.

The reason you probably have an air bag in your car is because the federal government has required carmakers to put them there. The government will not let a car company selling you a car that was built after 1998 unless it has an air bag, unless it has this device that’s been proven to reduce the chances of serious damage should disaster strike.

The auto industry was not psyched about that regulation, but that’s why they are bound by regulations. This is one of the things the federal government does. It serves the interests of all of us by requiring industries to make their products as safe as possible.

It’s why you can’t buy lawn darts anymore. Fun. Profitable, I’m sure also perfectly designed to puncture your skull.

It’s why you’re not supposed to be able to buy toys made of lead or coded in lead paint. For kids, these are cool but also perfect lead-poisoning delivery devices.

For the airline industry it’s a lot of stuff, including those nifty oxygen masks that drop down from above your seat.

For the auto industry, again, it’s things like air bags.

For the oil and gas drilling industry, it’s something called a blowout preventer. If that sounds familiar to you, it’s probably because you remember this image. This image that played out on TV screens across the country like a horror movie advertisement night after night, week after week, all last year—this image of crude oil flowing unabated into the Gulf of Mexico causing the worst oil spill in U. S. history.

That image, we have now learned, was the result of that oil well’s proverbial air bag, as it were, not working. It was the result of the blowout preventer on that well not doing its job.

What we are able to report tonight, exclusively, is that that is not just an explanation of what happened in the BP oil spill. It is not even just
a scandal about the BP oil spill or about the oil industry. It is a fundamental, baseline screw-up in this industry that is continuing to put the country at risk right now.

The government knows about it. The government could be stopping it.

And they appear to be trying to let it slide without explanation.

Let me explain. Here’s what we have found—the process of exploring for oil is, of course, a dangerous process. Accidents happen. When you’re drilling into the earth’s crust, there’s all sorts of pressure that builds up below the surface of the earth. Oil drilling is essentially about controlling that pressure while extracting the oil that you’re down there for in the first place, right?

But sometimes accidents do happen. Sometimes that pressure builds up and builds up and essentially surges up through the drilling pipe—the drilling pipe. It’s a well blowout. That’s where the blowout preventer is supposed to come in, right?

You’ve had a serious malfunction in the drilling process. Now, it is about containing the damage. The car crash has happened. The air bag is deployed.

The blowout preventer is basically a piece of equipment that’s attached to the top of an oil well, right? And when pressure surges up the drilling well—drilling pipe the blowout preventer is supposed to kick into action. It essentially seals up the well and holds all of that pressure in.

If the blowout preventer does not work, you get this. You get disaster—disaster not just for the environment but for the crew that’s stationed on top of that malfunctioning oil rig. Eleven crew members were killed when the Deepwater Horizon oil rig blew in the Gulf of Mexico last April.

Soon after that explosion and the historic oil spill that followed, it was pretty obvious that the blowout preventer had failed to prevent that blowout. That was pretty clear. But what we know now, what we have learned this week in fact is that the blowout preventer in question was not built wrong, it wasn’t broken, and it was used as directed.

The Coast Guard hired a Norwegian firm to do an expert forensic analysis of what went wrong with that blowout preventer in the BP
disaster. The Coast Guard, I should say, oversaw this. The government hired this firm.

The firm set up shop at a NASA facility in New Orleans in mid-November. Yesterday, they release what’d they found—what they found is that in our metaphor from earlier, the air bags in this case, and maybe in every case, don’t work. More specifically, they found air bags work unless there’s a car crash, and then they don’t work.

The forensic analysis of what went wrong in the BP disaster found a big burst of pressure that causes a well blowout can also render the blowout preventer useless. If the shock that causes the initial accident misaligns the rig’s pipes and valves, the blowout preventer won’t be able to work, won’t be able to seal off the pipe, even when used as directed, even when you do everything right.

Quote, “The findings of these studies should be considered and addressed in the design of future blowout preventers and the need for modifying current blowout preventers.”

The same disaster that caused the need for the backup plan also killed the backup plan. So, therefore, even though you’re calling it a backup, you don’t really have a backup plan.

It’s the same deal with the blowout preventers. The same disaster that causes the need for the blowout preventer—a blowout—actually blows out the blowout preventer, too, renders it inoperable. So, that means you really do not have a backup plan. You can call it redundancy. You do not have redundancy.

And again, it’s not because these things are broken. It’s because this is the way they are designed. That is the engineering part of this story.

Here’s the politics part of this story, and the life and death part of this story, which is worse, frankly. The federal government is now in the process of issuing new permits to drill in the Gulf of Mexico—issuing new permits all
of a sudden at a breakneck speed. Today, the Interior Department approved its fifth deepwater drilling permit for the Gulf of Mexico. Not its fifth just since the Deepwater Horizon disaster last April, we’re talking about its fifth in the last 25 days.

This permit was given to Chevron. It’s to drill a well off the coast of Louisiana in nearly 7,000 feet of water. The BP disaster, you’ll recall, happened in 5,000 feet of water. This new permit for Chevron follows the Interior Department’s decision over the last few weeks to grant drilling permits to Exxon, to Shell, to ATP Oil and Gas, and to Noble Energy. All of those oil companies have now been given the go-ahead by our federal government to drill, baby, drill.

After the moratorium, after the big halt in drilling, after the big safety freak-out after BP, why are new offshore drilling permits now flying off the shelves? Well, the government says it’s because the oil industry is now, quote, “complying with rigorous new safety standards implemented in the wake of the Deepwater Horizon explosion.”

According to the head of the permitting agency, the permits show—these new permits show that the industry has demonstrated “the capability to contain a deepwater loss of well control and blowout.”

This is the same office, the same office at the Interior Department that requested and released the investigation that proved that blowout preventers don’t work. Now, that agency is saying drill baby drill because the oil industry has proven it can handle a blowout—same agency.

When the Interior Department granted its first new permit since the BP oil disaster last month, we took note on this show that the permit went to Noble Energy. It seemed like an awkward choice to us at the time because the largest ownership stake in that Noble Energy project was held by BP. So, the first permit granted since the BP oil disaster goes to BP—BP working with noble energy.

After that permit was announced, the show obtained Noble’s oil spill response plan for that project. Again, this is for the first new drilling permit after the BP disaster.

We sought out that oil spill response plan because we figured if the federal government was granting new permits to drill, we wanted to see the updated oil response plan. We
wanted to see all the lessons learned from the big BP disaster if we’re going to be drilling again.

During the BP disaster, we all got really familiar with that company’s ridiculously inadequate oil spill response plan. Remember?

The BP oil disaster took place on April 20th, 2010. This is Noble Energy’s official oil spill response plan for their drilling that they just had newly approved. Check out the date on their oil spill response plan, September 2009.

So, the government is assuring us that they are only granting new permits for drilling because of all the lessons learned from the BP oil disaster. Look at this. The oil spill response plan for the first permit they issued, this oil spill response plan was written the year before the BP oil disaster.

So, no lessons learned from the BP oil disaster. No new containment capabilities developed after the BP oil disaster. Same blowout preventer technology that has been singled out as having failed during the BP oil disaster, and that we now know would fail again even if used as directed.

No new nothing as a result of the BP oil disaster. And this permit was approved last month, with an oil spill response plan dated seven months before the largest oil spill in U.S. history. With the administration’s assurance about all the rigorous new safety standards these companies are going to be following.

We contacted the government. We contacted the Department of the Interior after we obtained this document because we thought somebody must have sent us the wrong thing. We thought we must have been sent by accident an old version of this oil response plan. They informed us that, in fact, we do have the most up-to-date version on hand. They also told us that in general, rig operators are eligible to get new permits while they’re in the process of revising any old oil spill response plans.

So, what exactly is the permitting process reviewing, then?

We also asked the Department of the Interior if their permitting requirements might change, given the new report released by their own office that says blowout preventers don’t really work, even when they’re used as directed. They told us they have no comment on the report. It’s part of an ongoing
investigation, but they are handing out the permits to drill anyway.

This is like convicting Bernie Madoff and then investing his victims’ compensation fund in a nice Ponzi scheme. What on earth is the government thinking here? Are you being politically pressured into this with all the talk of higher gas prices? Seriously, what are you thinking here?

And how psyched is the oil industry that they think they’re going to get away with this, even after the BP disaster?

A 30-year veteran of the oil and gas industry joins us next to answer that question.

(COMMERCIAL BREAK)

MADDOW: Joining us now is Bob Cavnar. He’s a 30-year veteran of the oil and gas industry. He’s currently the CEO of Luca Technologies, which is in the natural gas industry. Before that, he was president and CEO of an oil and gas drilling exploration firm called Milagro Exploration. He’s also author of the book, “Disaster on the Horizon: High Stakes, High Risks, and the Story Behind the Deepwater Well Blowout.” Bob Cavnar helped us explain and understand that disaster as it was happening, as we reported it here on MSNBC.

Bob, it’s nice to see you again. Thanks for joining us tonight.

BOB CAVNAR, FMR. OIL INDUSTRY EXECUTIVE
Great to be with you, Rachel. Thank you.

MADDOW: The Interior Department has gone to great lengths to assure us that the permits they’re handing out now are the result of new safety measures that the oil industry has implemented since the BP disaster. We tried to get a hold of additional documents laying out what all those safety measures might be. We were told they contain proprietary information and cannot be released.

As a veteran of that industry are you aware of what new safety measures are in effect since the BP disaster?

CAVNAR: What I’ve seen, Rachel, in terms of communication from the BOE, MRE, the new agency of the Interior is designated to regulate the industry in the Gulf of Mexico—the new regulations are primarily around safety training and in third-party certification that supposedly assures the government that the companies who normally self-regulate are actually doing what they say they’re doing.
There’s no—no real change to deepwater drilling. The only real kind of systematic change is this subsea well containment procedure that they’ve developed, that a company has to certify that they are a part of before they receive a drilling permit.

MADDOW: In terms of subsea containment new technology, I want to talk to you about this new report about blowout preventers. But in terms of any new containment technology that’s been developed, has it been tested?

CAVNAR: There’s no—there’s been no real-life testing of this equipment, Rachel. But essentially, all this equipment that they have, there’s two companies doing it. One, the Marine Well Containment Company and another one called the Helix Well Containment Company. They essentially took the equipment that BP built on the fly during the Macondo well blowout and set that up as a permanent installation that’s on the shore that can be rapidly deployed.

So far, it has not been tested in a real-life situation, except during the period of time when it was actually being used on the BP well blowout and we saw how well that worked.

MADDOW: So when the federal government is telling us, telling our show, our producers directly that there are new security procedures in effect that should essentially set everybody’s mind at ease, that there’s rigorous new safety standards in place, what essentially that means is something that looks like what eventually capped the BP well is on the shore somewhere and there are companies who are saying that stuff is better, that people have been better trained and that safety standards are good. But other than that there’s nothing new that’s happened since BP.

CAVNAR: Right. There’s no fundamental change to the way we drill the deepwater, Rachel. We’re doing it with the same equipment, the same blowout preventers on all the deepwater rigs that are in the Gulf that failed on the Macondo well. And the issue here is that these new regulations regulate an unreliable piece of equipment, and regulating something that’s unreliable doesn’t make it more reliable. It just makes it more regulated.

MADDOW: So, to be perfectly clear about this because I’ve really got my hair on fire about this. I sort of can’t believe what we have found out.

CAVNAR: I understand.
MADDOW: The blowout preventers have been determined, at least by this latest forensic investigation, 500-page report that came out this week under the auspices of the Department of the Interior, this Norwegian firm that’s expert in it hired to do it, and they say the same thing that causes a blowout can render a blowout preventer inoperable.

You’re saying that oil rigs operating in the Gulf right now and anybody getting new permits to operate in the Gulf right now, they’re using that same piece of equipment?

CAVNAR: They’re using that exact same piece of equipment. And this shouldn’t be a surprise to the industry. There’s already reports there. In fact, Det Norske Veritas did a report in 2009 that said subsea blowout preventers fail about 45 percent of the time. Now, we know it ‘s not just maintenance and not just a fluke, there’s actually some design flaws within the device itself that the blowout will render useless and there’s no way to control the well.

MADDOW: So, Democratic Congressman Ed Markey of Massachusetts is very outspoken on these issues. He’s called for an immediate top-to-bottom inspection and review of blowout preventers, of their design and effectiveness. You think if that sort of inspection happened right now, it would find essentially a defective or at least poorly effective piece of equipment?

CAVNAR: What that inspection would find is superficial issues like hydraulic leaks, lines that weren’t connected, those kinds of things.

But inspecting an unreliable device that has a design flaw built into it doesn’t change the function and doesn’t change the lack of function if something goes wrong and it fails during a blowout.

MADDOW: Bob Cavnar, 30-year veteran of the oil and gas industry, author of “Disaster on the Horizon,” about the BP disaster—Bob, thank you very much for your time tonight. I Really appreciate it.

CAVNAR: Happy to be with you, Rachel. Thanks.

MADDOW: You know, in political science, they always say—in political science, they always say, they caution you to say don’t make public policies based on disasters. Don’t overreact to one in a million events. Yes, what’s worse, doing that or having a one in a million event and then not reacting to it at all? It’s just astonishing.
Tuesday night, we told you about California’s aptly named Diablo Canyon nuclear reactor, the hellish confluence of seismic faults, nuclear fission, and human error—lots and lots and lots of human error over and over again over decades.

We put out the call on that story, and lo and behold, a miracle happened. A Republican, a real live elected Republican official agreed to come on this show to talk with us about it. That miracle before your eyes is coming up.

But first, “One More Thing” about the BP disaster that apparently is not over. Oil is once again washing up on the shores of Louisiana right now. The Coast Guard says it comes from a shallow water well owned by Anglo-Suisse which leaked as the company was permanently plugging it up. The company, however, says only five gallons of crude oil leaked from that well.

Five gallons? That’s it?

Despite its denials, Anglo-Suisse is currently paying for a cleanup effort.

And then there is this. It’s not footage from the Gulf of Mexico after the BP oil well explosion last year that you’re looking at. This is footage from—look at that—this is footage from this week. Streaky brown stuff stretching for 100 miles.

It does look like an oil spill but the Coast Guard says it is not. The Coast Guard says it only contains trace amounts of oil. According to some local scientists, what they think that giant brown mass is, is a huge plankton bloom—the kind of plankton that when it dies creates a huge area of dead water that marine life must either flee or die.

It felt like the BP oil disaster went away abruptly last summer, didn’t it? It turns out it may not have really got gone away. It may just morphed from oil plumes into dead zones.

Drill, baby, drill.

(COMMERCIAL BREAK)

MADDOW: Against the backdrop of a week of headlines like this from Japan, “Radiation found in Tokyo water, infants shouldn’t drink,” and among continuing headlines about the inability to get the situation at the Fukushima reactors under control, with this as the very dramatic backdrop, the U.S. is revisiting its own relationship with nuclear
power. It's happening in our own heads, and it is happening officially.

You can tell it's happening in our own heads by the poll results that show support for nuclear energy dropping among the American public, dropping suddenly by almost 20 points.

But it's also happening at the official level. The Nuclear Regulatory Commission conducting a 90-day snapshot review of the safety status of the nation's nuclear reactors, but then also embarking on a longer, more thorough review of the whole industry.

The politics of nuclear power have fallen off the left-right axis in American politics in recent years, in large part because of climate change. This Democratic administration has been the most pro-nuclear power of any in recent memory. The president is guaranteeing federal financing for a whole bunch of new nuclear plants. The underpinnings of that Obama administration inclination is climate change, the idea being that nuclear power—for all of its faults—oh, God, don't say faults—nuclear power to all of its drawbacks is pretty good compared to fossil fuels when it comes to carbon emissions.

It remains to be seen if the disaster in Japan changes the Obama administration's pro-nuclear stance. If it does not, we are likely to get new nuclear plants in this country for the first time since the early 1970s. And yes, if you are doing the math at home, that means all of the 100-plus nuclear power plants operating in the United States right now date from the early '70s, at best.

One of them we highlighted on this show on Tuesday, Diablo Canyon in California. When it was being built, we were told it was nowhere near any earthquake faults. Then, it turned out it was near two of them, one about three miles away, the other less than a mile away.

Diablo Canyon has already been subject to billions of dollars' worth of retrofitting construction costs including $2 billion worth of costs because some of the seismic retrofitting construction at the plant was done by people who were looking at the blueprints backwards. Not kidding.

In the midst of all of this, of the crisis at Fukushima and the coming to light of decades of peril at Diablo Canyon, the plant's owner is busy trying to extend its license to operate this nuclear plant, which has tempted fate from the
day it was built.

The state senator who represents the district in which Diablo Canyon was located has been doing his darnedest to get attention paid to the safety problems at this little fishing machine. His name is Senator Sam Blakeslee. He is a Republican. He's also a geophysicist with a doctorate in earthquake studies. And he joins us now.

Senator, thank you so much for being here tonight.

STATE SEN. SAM BLAKESLEE ®, CALIFORNIA: Rachel, I’m glad to be here. Thanks for take an interest in this important issue.

MADDOW: Well, let me ask you if it is clear to you that we understand and appreciate all of the earthquake risks at the Diablo Canyon nuclear plant?

BLAKESLEE: I would, in fact, say it’s abundantly clear that we do not. As you rightfully mentioned in your introduction, the Hosgri fault was discovered after the site was already designated, the location of this nuclear power plant. The date it was already present from oil companies that knew that fault was out there, the utility didn’t find it until much too late—a very significant fault.

And I became very engaged on this issue when I was elected in 2005 and began getting legislation put together. And a second fault was found, this one literally hundreds of meters from the facility, some—quite a large fault. And it may actually intersect with this larger Hosgri fault offshore.

So, we may have this confluence of two faults which actually link up, thereby creating the potential of a very significant earthquake very close to the facility, which, of course, would be a worst case scenario for us.

MADDOW: Do you think that means that Diablo Canyon is inherently, seismically unsafe, or seismically unsuited to operate as a nuclear facility? Or do you think this is the sort of thing that we could—we could get more certainty about with further studying?

BLAKESLEE: As a scientist, by training, I’m always going to be the one that’s going to argue that we get the data to answer the question rather than speculate.

And that’s been my frustration is the Nuclear Regulatory Commission I think has been
turning a blind to this. They’ve been taking a check the box attitude. They treat these nuclear power plants next to faults like every other nuclear power plant around the country. They don’t have a specific policy or approach toward dealing with this extraordinary type of risk and hazard.

And that’s been what’s frustrating to me, is we need to nail down what the true risk assessment is so we can make some intelligent decisions about the fate of this facility.

MADDOW: And you think the license to operate Diablo Canyon should hinge on that further study?

BLAKESLEE: I think we should not move forward with the license until these studies are completed. The California Energy Commission, pursuant to my legislation, directed the utility to undertake certain steps to answer these questions rather than pursuing those actions with alacrity. Instead, the utility has raced to the NRC to try to get their facility relicensed, even though their licenses run through 2024 and 2025 for the two reactors. And the time, it would take to do the studies would be probably just three, four years.

So, it’s very frustrating to me as someone who represents the constituents in this area to understand why a utility would go put—racing to relicensing ahead of the need to get the information to understand how to retrofit the facility, or to know, in fact, if that’s the place to be until 2045 generating electricity.

MADDOW: Senator Blakeslee, I’ve been reading up on you and I know enough about you to know that you’re not categorically opposed to nuclear power. But representing this district, looking at the behavior of the utility here, looking at the behavior of the state agency that’s are designed to be keeping us safe here—do you think that the nuclear power companies, the industry, is capable of being as honest about the safety of their plants as they need to be for the American public to be confident in this as technology?

BLAKESLEE: Rachel, I know a lot of people who work for PG&E, and to a person that I know, they are hard-working, they’re sincere, they have a lot of integrity. And I know a lot of people actually in PG&E’s management. I have a lot of regard for them.

I think the challenge is the regulatory entities that are tasked with really providing oversight have become too close to the industry. They
no longer take their responsibilities seriously with regard to seismic safety.

So, from my perspective, I think the larger issue—I think all utilities, I think all oil companies, I think all industries have a certain duty to shareholders, but we as legislators and those that write laws that direct regulators to take action need to be tough on these regulators to make sure they do their job so that we end up with an environment that is safe, where we can build and know we’re actually generating electricity but we’re doing it safely.

So, I’m not going to take a shot at PG&E. I don’t think that would be fair, beyond the statement that I am concerned that they put relicensing ahead of the seismic studies. I think they need to turn that around and do it immediately. I’ve called for them to do so and I’m waiting to hear from them. I issued that challenge just two days ago.

MADDOW: People who say that commie, pinko, liberals like me and Republicans such as yourself cannot never find common ground on issues of the role of government and regulation, vis-a-vis the industry, those people are wrong and we’ve just proven it.

California State Senator Sam Blakeslee, your willingness to have this really constructive discussion, not only with your constituents but with us here on national TV, is something I’m really grateful for. Thank you very much.

BLAKESLEE: Thank you for your interest in this. Appreciate it.

MADDOW: Still to come, the most fear-mongery thing you have ever heard in politics ever that it turns out isn’t fear-mongering at all. We have that very counterintuitive tape, coming up.

(COMMERCIAL BREAK)

MADDOW: Why you are waging a war does not determine whether or not that war is a real war, whether you’re there for humanitarian reasons or for manifest destiny or for self-defense or pre-emptive self-defense—with our without made-up weapons of mass destruction. A war for virtuous reasons is as much a war as one that is fought for a lie.

The point of the international war in Libya was defined narrowly by the United Nations. It was defined as a war to keep Moammar Gadhafi from massacring his own people using military
But it is hard to use warfare to stop fighting. Fighting is a defense. There is no such thing as a military shield for civilian populations. And so, the U.N. war in Libya, with its goal as protecting the civilian population, that war has been in effect a fight between an international coalition and Moammar Gadhafi’s military. Gadhafi’s forces have troops on the ground. The international forces are doing all they are doing from the air and the sea.

The international forces keep saying their objective is not to go after Gadhafi himself, but they are clearly trying to defeat his military in battle. And the anti-Gadhafi rebels on the ground are frankly delighted to have the help.

This is footage of a “thank you” coalition rally in the rebel-held city of Benghazi yesterday. “Euronews” reports 15,000 people turning out in Benghazi holding signs, thanking the United Nations and the U.S. and France and the rest of the coalition for bombing their country, for in effect fighting on their side in their war against Gadhafi. Those flags you see are pre-Gadhafi-era Libyan flags.

Today, after the U.S. had said insistently and consistently that American leadership of the Libyan operation would end within days and not weeks, after six straight days of NATO meeting about this, NATO finally announced that they would take command of the Libya operation, that the United States would get out of the command and control leadership position that our military has been in since this thing started at the weekend. They said it will now be NATO at the lead instead.

Secretary of State Hillary Clinton will brief Congress on the situation next week, along with Defense Secretary Bob Gates and the Joint Chiefs chairman. But tonight, she said this at a press briefing.

(BEGIN VIDEO CLIP)

HILLARY CLINTON, SECRETARY OF STATE: We have agreed, along with our NATO allies, to transition command and control for the no-fly zone over Libya to NATO. This coalition includes countries beyond NATO, including Arab partners. This evening, the United Arab Emirates announced they are joining the coalition and sending planes—

(END VIDEO CLIP)

MADDOW: So, less United States, more
coalition, including Arab countries, more NATO. That is the idea as of tonight.

On Saturday, when military operations began, the U.S. was responsible for 70 percent of the sorties flown over Libya. That number then went up to 87 percent, down to 65 percent, and then yesterday back up to 70 percent.

Now, that NATO is taking control of the no-fly zone instead of the U.S. being in charge, will that proportion of U.S. sorties, U.S. flights go down? And when does the Libya engagement go on long enough at any level of U.S. engagement that the administration will seek a congressional vote on whether we should be there or not?

On tomorrow’s RACHEL MADDOW SHOW, we will have an inside look at the upside-down, inside-out, they-said-it-couldn’t-be-done politics of what this war is costing.

We will be right back.

(COMMERCIAL BREAK)

MADDOW: Since the Japanese government announced earlier this week that elevated levels of radiation in Tokyo tap water meant that infants should not consume that water, they have since rescinded that instruction. They are telling people now that the water is fine.

Two workers at the Fukushima Daiichi plant have now been hospitalized for radiation exposure after stepping into water that was radioactive while they were working to try to stabilize the plant. The junior-level nuclear science we have all been doing to try to understand the news out of Japan and its nuclear disaster now also has to extend to the never-before—never-before-faced quandary of what to do with an uncontrolled nuclear reactor that is in essence packed with salt.

They have been dumping in tons and tons and tons of seawater into these hot reactors and these hot spent fuel pools. As the seawater boils off, it leaves behind salt, tons and tons of salt.

How will that salt affect the still-continuing efforts to keep those reactors and those spent fuel rods from melting down? We are learning as we go on this.

Joining us now to help us understand what we can about this continuing crisis is Dr. Michio Kaku. He’s a theoretical physicist. He’s also author of “Physics of the Future: How Science
Will Shape Human Destiny and Our Daily Lives by the Year 2100.”

Dr. Kaku, thank you very much for your time tonight.

DR. MICHIO KAKU, THEORETICAL PHYSICIST: Glad to be on the show.

MADDOW: I mentioned the salt water quandary because of these fears that the salt from the seawater being used in desperation to cool down these reactors may eventually contribute to the risk factor at these reactors. Can you help us understand in layman’s terms what’s really going on here?

KAKU: Well, think of the little Dutch boy facing all these cracks in a dike. This hole, that hole, that hole has to be taken care of. We now have another hole in the dike, and that is the creation of salt -- 90,000 pounds’ worth of salt in one unit because of the boiling of seawater. That salt encrusts the fuel rods like a cocoon, preventing cooling water from cooling the rod.

When the rod hits 5,000 degrees, it starts to melt. Hydrogen gas is released. And if there’s a spark, you get a hydrogen gas explosion, which blows the whole spent fuel pond into the air—very similar to what happened at Chernobyl.

MADDOW: In terms of that insulating factor of the salt, if they can switch over to fresh water for continued cooling efforts at these reactors, is it likely that that will I guess dilute that salt crust enough—or dilute the impact of what they’ve been doing with the seawater enough to undo some of that insulating damage that’s been done?

KAKU: That’s right. The hope is to use fresh water rather than seawater. But realize that they’re making this up as they go along.

Take any nuclear engineering textbook, go to the last chapter for accident scenarios. This is not in the book. We’re witnessing a science experiment with humans, us, as the guinea pig. They’re literally making this up as they go along. We’ve never seen this before in a nuclear accident of this magnitude.

MADDOW: What do you make of the news that power, electrical power has been restored to the reactors? Are you able to tell enough about how much damage has been done to the systems that you’d be hooking electrical power up to, to know whether or not this is...
going to be a game-changer in terms of wrapping this crisis up?

KAKU: The problem is that they have electrical cables going into the units but they cannot turn on the pumps. In fact, they turned on the pumps at unit two and it didn’t work. The problem is there’s hydrogen gas and a spark by turning on the light switch could set off the hydrogen gas.

So, until they get the pumps going, we have to rely on the firemen. And nowhere in the textbook do they say that firemen, the local firemen, are the last resort to put out a nuclear accident. This is unprecedented.

So, we rely on the local firemen to put water on the site because the pumps are not yet turned on. It’s very dicey. They’re waiting to see whether or not they can turn on the pumps. And unit two’s pumps didn’t work.

MADDOW: Inadvertently, tonight’s show we’ve talked about the BP oil disaster. We’ve talked about safety problems at Diablo Canyon. Tonight’s show has been all about making good policy and making adjustments in future planning to reflect past disasters.

We keep talking about—we actually talked about safety problems at Diablo Canyon. Tonight’s show has been all about making good policy and making adjustments in future planning to reflect past disasters.

You are a futurist. You are a theoretical physicist. When you look at this situation in Japan, clearly, there has been a lack of imagination about how much can go wrong. How do you think we ought to start to plan a safer future based on what’s happened at Fukushima?

KAKU: The key mistake they made was not to plan for the once in 100-year event. Engineers say not in my lifetime, not in my children’s lifetime. Well, we have the once in 100-year event.

Look at Katrina. That was not supposed to happen for 100 years.

At Fukushima, the walls guarding against a tsunami were only about 15 feet tall. The tsunami that hit was 25 feet tall. And then they put the generators in the basement. That is the fundamental reason why this thing spun totally out of control.

All the safety systems got wiped out simultaneously and that’s not in the book. This is way outside the textbook that every nuclear engineer has to learn.
MADDOW: We need new textbooks that are way more scary than the existing textbooks in other words.

KAKU: That’s right.

MADDOW: Dr. Michio Kaku, theoretical physicist, author of “Physics of the Future”— thanks for helping us understand this tonight. Appreciate it.

KAKU: All right.

MADDOW: Is there any agency more save the world sounding than the National Nuclear Security Administration? In the aftermath of the Japan nuclear disaster, is there any agency less deserving of defunding from budget-hacking Republicans in the House?

Saving some money versus saving the planet, and one of the most amazing political ads you have heard in a long time—coming up next.

(COMMERCIAL BREAK)

MADDOW: There is a long, dirty history in American politics of using terrifying threats about terrorism to pursue some other totally unrelated political goal.

(BEGIN AUDIO CLIP)

RUSH LIMBAUGH, RADIO HOST: All right, the terrorists have won, ladies and gentlemen. A nine-to-zero vote by the Landmark Commission of New York clearing the way for a mosque to be built at the site of Ground Zero.

(END AUDIO CLIP)

MADDOW: The radio host Rush Limbaugh saying building a mosque at the site of a former Burlington coat factory in Lower Manhattan is a victory for the terrorists who attacked us on 9/11.

Senator Jim DeMint also said if TSA screeners are allowed to be in unions, then—you know, also terrorism.

(BEGIN VIDEO CLIP)

SEN. JIM DEMINT ®, SOUTH CAROLINA: When we formed the airport security system, we realized we could not use collective bargaining and unionization because of that need to be flexible yet that appears to be the top priority now of the administration. These things are not going to appease the terrorists. They’re
going to keep coming after us and we can’t have politics as usual in Washington, and I’m afraid that’s what we’ve got right now with airport security.

(ENDING VIDEO CLIP)

MADDOW: Allowing TSA screeners to be in unions—you know, terrorism.

During the 2006 midterms, the threat from the administration then was if you vote for Democrats—terrorism.

(BEGIN VIDEO CLIP)

GEORGE W. BUSH, FORMER U.S. PRESIDENT: However they put it, the Democrat approach in Iraq comes down to this: the terrorists win and America loses.

(ENDING VIDEO CLIP)

MADDOW: Up the threat stakes to nuclear and fear-mongering politicians have used that to go after even bigger political goals totally unrelated to the thing they are threatening you with.

(BEGIN VIDEO CLIP)

CONDoleezza Rice, Former Secretary of State: We don’t want the smoking gun to be a mushroom cloud.

BUSH: We cannot wait for the final proof, the smoking gun that could come in the form of a mushroom cloud.

(ENDING VIDEO CLIPS)

MADDOW: Saddam Hussein did not have a nuclear program. That threat was not real but that is such a big, terrifying fake threat—a mushroom cloud, that it’s the kind of thing that can scare us into even really big, unrelated policy disasters.

(BEGIN VIDEO CLIPS)

UNIDENTIFIED MALE: What we know for a fact from a number of defectors who have come out of Iraq over the years is that Saddam Hussein is absolutely determined to acquire nuclear weapons and is building them as fast as he can.

UNIDENTIFIED MALE: We read in “The New York Times” today a story that says that Saddam Hussein is closer to acquiring nuclear weapons. Does he have nuclear weapons? Is there a smoking gun here?

advertisement
UNIDENTIFIED MALE: A smoking gun is an interesting phrase.

COLIN POWELL, FORMER SECRETARY OF STATE: And as we saw in reporting just this morning.

UNIDENTIFIED MALE: What, specifically, has he obtained that you believe would enhance his nuclear development program?

(END VIDEO CLIPS)

MADDOW: America’s fear-mongering history about the nuclear end of the world is kind of too bad because it is not fear-mongering to talk about the nuclear end of the world if you are actually working directly to stop the nuclear end of the world. That is the job of one part of the United States government.

It’s an obscure office in the Department of Energy called the National Nuclear Security Administration. They lock down unprotected loose nuclear material around the world to keep it off the black market and out of terrorist hands, which without being hysterical about it, does seem like an important job when you consider that groups like al Qaeda have said over and over again they want to buy nuclear material so they could use it in a terrorist attack and there is evidence that they have tried to buy it on the black market. There is part of the U.S. government that finds the most vulnerable nuclear material in the world and secures it.

So, if you’re worried about this sort of thing, the appropriate response is: good. I’m glad we’re doing that.

After that agency locked down 111 pounds of nuclear material in Ukraine around Christmas time, we hosted the head of the nuclear administration here on this show. We christened him the “under secretary for saving the world.”

Now, the Republicans in Congress want to strip the funding for that agency. Even though they said they wouldn’t make any national security cuts, they want to cut $550 million from the agency that locks down unprotected loose nuclear material to keep it off the black market around the world, which means that for what may be the first time in U.S. history, an ad that starts this way is actually true and is not fear-mongering.

(BEGIN VIDEO CLIP)
LT. GEN. ROBERT GARD, JR. (voice-over): What I am about to tell you sounds crazy but it’s true—Speaker John Boehner is making it easier for terrorists to get nuclear weapons.

(END VIDEO CLIP)

MADDOW: Sounds crazy? Also true. It sounds like a generic “be afraid” ad from the Bush administration era. In this case, Republicans really have proposed making it a half billion dollars easier for terrorists to get nuclear material.

That was the first line of a new ad voiced by Retired Lieutenant General Robert Gard. He’s part of a counter-proliferation group running these ads against the nuke terrorism cuts in key congressional districts. Listen.

(BEGIN VIDEO CLIP)

GARD: Speaker John Boehner and the House Republicans cut hundreds of millions of dollars from the successful U.S. program to secure dangerous weapons-grade nuclear material all around the world. Terrorists can make nuclear weapons with it. John Boehner’s reckless cut to our nuclear security budget goes way too far. We all want Congress to cut the budget but do it responsibly.

(END VIDEO CLIP)

MADDOW: The ads are targeting not just John Boehner but Mitch McConnell, Eric Cantor, Paul Ryan, Hal Rogers and Thad Cochran, all elected Republicans supporting this big cut on the part of the U.S. government that actually works on that whole smoking mushroom cloud problem instead of just freaking you out about it to accomplish some other unrelated political thing.

We do not have a word in the English language that means the opposite of fear-mongering but if we ever do have that word, this will be the example next to that word in the political science dictionary.

That does it for us tonight. We’ll see you again tomorrow night.

Now, it’s time for “THE ED SHOW.”

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