Open Letter to May Ma, Program Management Administrative Enterprise Chief, Nuclear Regulatory Commission

RE: Docket ID NRC 2016-0231, a proposal to store high-level nuclear waste – "Interim Spent Fuel Storage Facility Project" – in Andrews County, Texas.

Greetings, Chief Ma and NRC Staff!

This press release was posted June 11, 2018:

http://us.areva.com/EN/home-4216/orano-orano-usa%E2%80%94interim-storage-partners-submits-renewed-nrc-license-application-for-used-nuclear-fuel-consolidated-interim-storage-facility-in-west-texas.html

Andrews, Texas – Interim Storage Partners, a joint venture of Orano USA and Waste Control Specialists, today announced the submission to the Nuclear Regulatory Commission of a renewed license application to construct and operate a consolidated interim storage facility (CISF) for used nuclear fuel at the existing WCS site in Andrews County, Texas. With this submission, ISP is formally asking the NRC to resume its review of a revised CISF license application originally submitted April 2016 and docketed by the NRC for review in January 2017 (Docket No. 72-1050).

The revised application reflects the organization of the joint venture along with new leadership, but remains unchanged in its original proposal to securely receive, store, and **safely manage used nuclear fuel** from shutdown U.S. nuclear reactors at a planned facility built on the existing 14,900-acre WCS low-level waste storage site.

In its application, ISP proposes an initial 40-year license to consolidate and store an eventual total of 40,000 metric tons of used nuclear fuel, developed over eight flexible phases. The CISF will securely store the used nuclear fuel with the same proven storage technology and **commitment to safety demonstrated by Orano** and NAC International at storage installations currently in place and reliably operating at U.S. reactor sites across the United States.

To begin this letter of protest, I would like to take exception to the bold-type phrases above. First, "the existing site" is a modest collection of low-level nuclear waste. While this, too, needs to be taken seriously, it is nothing compared to 40,000 metric tons of highly radioactive spent fuel rods. "Existing facility" is a misnomer. The facility is not presently used for the purpose intended, and the two types of custody are widely different.

Second: **There** *is* **no way to** "safely manage used nuclear fuel"! The migration of nuclear elements from the Nevada test site toward the California border is well documented. Unforeseen circumstances (they are always unforeseen) caused nuclear material in Japan to migrate into the eastern Pacific and even the soil of North America, and the Chernobyl disaster permanently poisoned a huge swath of Europe. **All materials migrate**, including the most toxic substances on Earth today, the very elements Interim Storage Partners would have us believe will be "safely managed" in Texas.

Third, Orano, formerly known as Areva, is the French company known to have released "one million liters of liquid radioactive waste per day" from its La Havre facility, and which fumbled 30 cubic meters of liquid uranium into the Rhone River watershed in 2008. Several other accidents and deliberate irradiations of the environment are attributed to this company, which cannot change its reputation by changing its name. Interim Storage Partners hopes we will be confident in its abilities, but there is unfortunately no reason for this confidence.

Now let's get to the real reason for this proposal. The DoE is attempting to enforce the Nuclear Waste Policy Act of 1982, thus avoiding millions of dollars in lawsuits by outraged power companies, who were promised permanent nuclear storage. While it is regrettable that this promise was made at all, and while it may entail certain unpleasantness for taxpayers and bureaucrats, the government should face this fact: Government and industry are no closer to understanding how to sequester highly radioactive waste from human Life – for the thousands of years this material will be lethal to humans and destructive to our DNA – than you were in 1945.

Billions of dollars of research, thousands of PhDs, and deep concern for three quarters of a century, have not produced an answer to this problem. And yet more nuclear waste is produced every year, with approximately 80,000 metric tons of high-level nuclear waste languishing here and there, around the country. This is madness!

Keeping your promise to industry would be the *height* **of madness**, for reasons you know well, but which I will detail below.

To begin with, the main point of making that promise was to encourage nuclear energy, as an industry. If a for-profit company can sell electricity, but slough off the toxic byproduct, that's a profitable business; if it has to pay for a hundred thousand years of storage, the bottom line doesn't look so good. It was wrong to make the promise in 1982, but keeping that promise would send another message to the makers of this horrid waste: "No problem. You can make your profits and we'll stash the stuff in New Mexico. End of story." But of course, the story doesn't end with "disposal". The story goes on and on, affecting everything that has contact with this radioactive legacy for tens or hundreds of thousands of years to come.

The "chest X-ray" dismissal of exposure to radwaste seems to make the problem go away. **How many X-rays should be forced on Americans**: railroad customers, those living along highways and rail lines, workers involved in transportation, drivers on the road, who might be in proximity to a load of radwaste and not even know it? And that's in an uneventful transfer. What about the inevitable transport accidents?

We have all seen enough derailed trains, exploding oil tankers, and tipped-over semis to know that *accidents happen*. They don't always happen, but sometimes they do. By transporting nuclear waste along hundreds of routes, by various modes – not only once, but continuously – you set up *a virtual certainty* that one or more shipments will have a "mishap".

A State of Nevada website (http://www.state.nv.us/nucwaste/trans/nucinc01.htm) notes: "From 1949 to 1970 14 incidents were reported in a series of U.S. Atomic Energy Commission reports. They were either traffic accidents with no releases or nontraffic accident events with minor leaks suspected from the casks which resulted in small amounts of observed contamination."

The same site adds: "From 1971 to present, 58 incidents have been reported in the Radioactive Material Incident Report database operated by Sandia National Laboratories. 49 of the 58 incidents involve minor surface contamination."

These have all been relatively minor mishaps. But with all the shipping planned for this "Mobile Chernobyl", an Exxon Valdez or a South Carolina Amtrak disaster are sure to crop up. This is what South Carolina looked like:

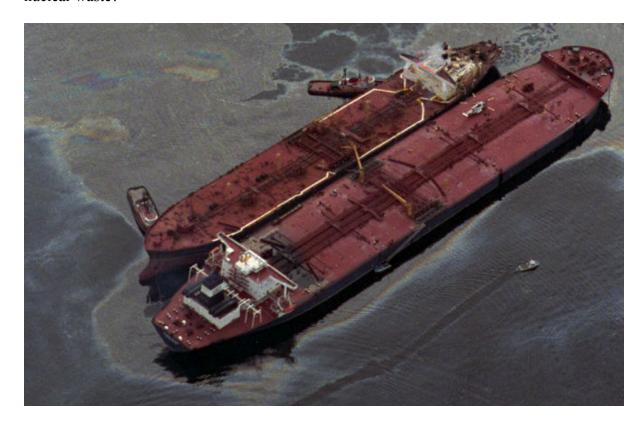


Accidents happen. South Carolina was the fourth fatal train wreck in America in two months. This is what the one in Washington looked like, back in December, 2017:



It's bad enough when Amtrak hits a normal freight train. But what if the freight were highly radioactive waste? **The entire crash site would become another Fukushima,** too expensive and technically difficult to clean up, and thus another open sore for the world, **permanently oozing its radioactivity into the rest of the continent**.

Here's the Exxon Valdez, surrounded by oil. Bad enough. But what if it had leaked high-level nuclear waste?



Culprits blamed for mishaps range from operator error to faulty machinery, to administrative error, to road conditions, to such natural occurrences as heavy rainfall, icing and tornados. We are always told that human, technological and natural factors can now be controlled, "in this new and modern age". But accidents keep happening anyway, and each one hurts the country. Let's not set America up for another mega-disaster.

Dry casking is the best we can do, today. The casks will need replacement in a two centuries, at best –being but a minute fraction of the half-life, of this toxic material. The economy surrounding Andrews County may not be robust in a century or two. And industrial sophistication may decline (compare Rome in the days of Constantine, and the ruins of Italy just two centuries later).

In the event that casks cannot be replaced with the utmost care (and with no untoward accident) old casks will degrade and ultimately allow their contents to mix with the soil, groundwater, and air around what is now Andrews County, Texas. Gradually, these deadly materials would emerge. **Nor would the radiation stay localized.** All materials migrate.

So ... how temporary is this proposed storage? After moving the radioactive waste across highways, oceans and rails *once*, you suggest that it will be transported *again*, further endangering the public ... for permanent repository ... where? Yucca Mountain has proved insufficient to the task of "permanent storage". And there's no alternative. Admit the obvious. **No viable plan for permanent storage has been mooted.** You are letting the

nuclear industry off the hook, but have no idea where else the waste might eventually end up. In fact, it would never leave Texas intact, because a "permanent location" will not be located, and the vast expense of moving it again is unlikely to be underwritten by government or by industry, in a time of economic decline.

Perhaps you should just admit that this "interim" plan is a hoax: this is as far as anyone expects that waste to go – until a current levels of industrial wealth and sophistication decline, and we can no longer able to guard it and continually re-cask it, at which time this massive collection of horrendous toxicity begins to migrate on its own.

Costs of storage will run into billions of U.S. dollars. Who will pay, for *thousands of years*? **What happens when Interim Storage Partners no longer exists?** Look at the abandoned Anaconda copper mine in Butte Montana. The company extracted wealth from the mine, and left a huge hole in the ground, that fills up with toxic water and costs a tremendous amount to manage as a Superfund site. Or take Silverton, Colorado, where the abandoned Gold King mine has been sending toxic water into nearby streams. Heavy metals are bad news, but what if the leakage were nuclear?

Companies last only as long as profit flows in; then they file bankruptcy. After that, their infrastructure is left rusting, and custodianship devolves upon the Federal Government – which is, at this point, \$21 trillion dollars in debt. We must face the fact that our ability to "manage" nuclear waste, for the period of time that it is toxic, is completely insufficient to the task. "Interim" storage in New Mexico and Texas will in no way make that waste more secure.

So we're really talking about one proposition: getting the lawsuits, by irate power companies, off the back of the DoE. That's the only advantage to be had, except for large, short-term profit for Interim Storage Partners. There is no benefit to the United States or American citizens. Settling lawsuits is a relatively *minor* outcome.

Other than its value to the nuclear industry, and the government's convenient settling of lawsuits, there is no compelling need for "interim storage". The stuff will be no safer in Texas than in the places these waste materials now reside. Not only is moving the waste unnecessary, it bodes ill. The complexities of transportation offer many, many chances for disaster, which your agency would be powerless to contain, and it's unnecessary.

Besides being a useless exercise, and besides the health threat implied by shuffling 40,000 metric tons of nuclear waste around the country, there is another hideous detail hiding in plain sight. This is a deliberate attempt to foster a "nuclear renaissance", in spite of the growing frustration, worldwide, with nuclear power. This proposal would breathe new vigor into a dying industry that should never have been born.

I would turn your attention to the righteous protests of South Carolina residents against the **refusal of Westinghouse and its partners, to clean up leaked radioactive materials from its nuclear fuel factory in Richland County.** This sort of industry indifference (and the further complexity of the company's sudden insolvency) should be highly instructive, relative to this plan to hand nuclear materials to *a for-profit company*.

Allowing power companies to make their profit, and then giving someone else responsibility for the waste, allows renewed profitability for companies that are *making* this toxic waste. We should *stop producing it*, not foster a renaissance in the production of <u>virtually eternal poison!</u> This plan is pivotal: do we wind down this disastrous industry, and focus on *some real solution* to the waste problem; or do we bury the problem and try to forget that it is central to our species' survival, that <u>humanity</u>'s very existence is threatened by its existence?

If you made the production of toxic waste *profitable* again, the NRC would be encouraging a disastrous *increase* in radwaste. We need to *stop producing this stuff* – at least until someone knows what to do with it: some yet-undiscovered means of eternally sequestering its toxic effects from the biosphere. No previous plans have been sufficient to restrict the awesome power of the split atom to desirable purposes. It's the most troublesome technology on Earth, and is unnecessary for our happiness.

Bureaucrats are often tied up in regulations and legal hassles, and I have sympathy for the awkward position in which the DoE now finds itself. It will certainly take a lot of paperwork, to make those lawsuits go away. But this plan is like burning down a house to avoid vacuuming. I would suggest federal legislation rescinding the stupid promise made in 1982, but what to do about the lawsuits is a hassle for your legal team. You are now in the position of having to choose between accepting the sticky consequences for a past deed, and trying to sweep the matter under the rug. It's time to admit the folly of nuclear power and begin to analyze the problem more thoroughly. But the first step is to *stop producing nuclear waste*, and this plan has **tremendous power to increase** the deadly menace of nuclear waste in America.

We need our government officials to *do the ethical thing*. We need our government to really *look after our interests*, not sell our security to private industry in some quick fix. I urge the DoE to reject the plan for risky mass transportation of radioactive waste, to a supposedly "interim" storage location run *for profit* by private industry.

A worse plan would be hard to conceive, and its implementation would be much more **potentially damaging – to** *the government*, as well as to the human race, generally – than dealing with the pesky lawsuits. As angry as various groups are at the government, for so many reasons; as indebted as the federal government now is; as weak as its institutions have become of late ... the government can ill afford a nuclear accident. And at least one disaster is sure to happen, should 80,000 metric tons of nuclear waste be moved, from over a hundred locations, to New Mexico and Texas. One has only to look at the embarrassing decline in Japan's stature, the slump in its economy and the increasing unpopularity of its government, since Fukushima, to imagine what a dangerous plan this is to the legitimacy and continued efficiency of the federal government. Note also that the fall of the Soviet Union was predicated by the Chernobyl disaster, which had happened just five years prior.

But realpolitik aside, any attempt to minimize the dangers of nuclear waste, and to treat it as an ordinary commercial product, is *ethically untenable*. I urge you to consider this plan in all its dreadful complexity, and realize that settling your lawsuits is a minor problem, relative complex shuffling of the most deadly materials on Earth, and promoting further expansion of the disastrous nuclear industry. For your own sake and mine, please reject this proposal.