

**Remarks of City Councilmember Larry Agran  
Regarding the San Onofre Nuclear Generating Station  
Irvine City Council Meeting  
March 27, 2012**

**I.**

Like billions of people around the world, beginning on March 11, 2011, I struggled to absorb the meaning of the horrific televised images coming from northern Japan. Like others watching from afar, I witnessed the shocking devastation caused by a massive 9.0 earthquake, followed by a 50-foot tsunami. And, like others, I witnessed the unfolding catastrophe at the Fukushima Daiichi nuclear power plant, where the earthquake and tsunami crippled its operations, leading to nuclear reactor meltdowns, major explosions, and the dreaded release of radioactive gases and particles that spread over vast areas of land and sea.

While we have all been witness to this enormous — and still unfolding — human tragedy, I've used much of this past year to think about these catastrophic events from my perspective as a long-time local elected official here in Irvine, right in the middle of Southern California and just 22 miles north of the San Onofre Nuclear Generating Station. Like Fukushima Daiichi, San Onofre is an aging nuclear power plant with a troubled history, located in a geologically uncertain and unstable place.

After a year of research, including meetings with engineers and scientists, numerous briefings and even a tour of the San Onofre facility, I've learned a great deal. I don't claim to be an all-knowing expert — in fact, I haven't met *anyone* who would claim expert knowledge *and* infallible judgment in all the complex matters of nuclear safety. But I do know enough to have reached this conclusion: *I believe that our shared community commitment to public safety requires that we bring about the safe, orderly decommissioning of the San Onofre Nuclear Generating Station as soon as possible — and certainly before 2022, when the current San Onofre nuclear reactor licenses expire. I believe the period immediately ahead should be used for planning the quickest possible transition to safer and more reliable energy sources. It should not be squandered engaging in a bitter, divisive fight with San Onofre's principal owner and operator, the Southern California Edison Company, regarding the possible re-licensing of the aging San Onofre facilities for 20 years, thereby extending its operations until the year 2042. Accordingly, I take this opportunity to call upon the corporate leadership of Southern California Edison to put public safety first by clearly and unequivocally renouncing any intention to pursue re-licensing San Onofre.*

## II.

Here are the common sense lessons learned that inform my views about nuclear power generally and San Onofre in particular.

*First, I've learned that measured in terms of public safety, the record of commercial nuclear power generation is at once alarming and depressing.* There are reportedly 440 commercial nuclear power plants now operating worldwide, including 104 in the United States. Not included among these are three nuclear generating plants that experienced catastrophic failure well short of their expected 40-year useful life.

- In 1979, human error caused the destruction of the Three Mile Island nuclear facility in Pennsylvania, leading to the release of radioactive materials in the air and into the Susquehanna River, with billions of dollars in property damage and cleanup costs. The plant came within hours of a complete meltdown and explosion that would have devastated large parts of Pennsylvania. And, depending on wind conditions, the radioactive contamination field could have reached highly populated areas of New Jersey and the New York City area as well.

- The second failed plant — another case of failure attributed to human error — was Chernobyl, in the Ukraine. In 1986, the Chernobyl nuclear power plant experienced a meltdown and explosion, causing radioactive contamination and the permanent de-population of thousands of square miles.

- Last year, of course, the Fukushima Daiichi nuclear power plant failed in the aftermath of an earthquake and tsunami, although human errors apparently contributed to the disaster. Fukushima, like Chernobyl, caused mass evacuations and has rendered large areas of northern Japan uninhabitable.

Each of these catastrophes has been described by regulators and power plant owners and operators as a freak event, suggesting a kind of "one-in-a-million" likelihood of a nuclear accident occurring near you. Really? Looking back on the record of commercial nuclear power operations so far, I'd put the odds that a nuclear power plant would have a catastrophic failure during its 40-year lifecycle as closer to 1 in 100. I don't like those odds, especially when — in the case of San Onofre — most of Southern California is being put at risk.

*Second, I've learned that, like Fukushima, San Onofre was built to withstand a 7.0 earthquake.* In fact, the earthquake that struck northern Japan was 9.0 on the Richter scale. Remember, that's *exponentially* more powerful than a 7.0 quake; in other words, it's *100 times more powerful* than a 7.0 earthquake, with 100 times the violent shaking. Ever since the 1971 Sylmar earthquake, which was less than 7.0 but nevertheless devastated large portions of the San

Fernando Valley, we've been told that we're overdue for "The Big One" — an 8.0 or larger earthquake — in Southern California. Yet San Onofre, which sits on the coast next to the Newport-Inglewood Fault, is only built to withstand a 7.0 quake. Today, knowing what we know about seismic possibilities, that's clearly not good enough. This isn't simply my opinion. It's the opinion of senior scientists and engineers, including a senior engineer who was responsible for analysis and design of the San Onofre nuclear containment vessels.

The truth of the matter is that what we've learned about earthquakes since the 1970s is that we don't know very much at all. Time and again we are surprised. We simply cannot make confident predictions because we don't really know what's going on five miles below the earth's surface. With or without a tsunami — and I'm told by scientists that San Onofre's susceptibility to a tsunami is real — the chances that the nuclear reactors at San Onofre would escape catastrophic damage in the event of a very powerful earthquake appear to me to be poor.

*Third, there are more than 4000 tons of radioactive waste stored on site at San Onofre, some stacked in reinforced casks in plain view and the balance in more vulnerable cooling ponds. The federal government's failure to provide a national nuclear waste repository — one that can secure nuclear waste for thousands of years — only compounds the risks we face at San Onofre.*

*Fourth, there is no way that public officials could possibly manage a full-blown nuclear emergency at San Onofre.* Current evacuation plans appear to be totally inadequate, prescribing an evacuation zone of just 10 miles that includes about 150,000 people in San Clemente, Dana Point, San Juan Capistrano, and a number of smaller communities. Fukushima's evacuation zone ranged from 12 miles (imposed by Japanese officials) up to 50 miles (recommended by U.S. officials). A 50-mile evacuation zone around San Onofre would reach to San Diego in the south and to Long Beach in the north. It would also include all of Orange County, and big portions of Los Angeles County and the Inland Empire — potentially involving about 10 million people, depending on the extent of radioactive contamination. This contamination field, in turn, is literally dependent on which way the wind is blowing the radioactive materials. In the case of Chernobyl, areas as far as 100 miles away from the Chernobyl plant have been declared "zones of alienation" that are uninhabitable now and may remain uninhabitable for hundreds of years.

Think about that. Unlike a terrible brush fire or flood, evacuation in the face of a nuclear catastrophe could mean *permanent* evacuation — leaving just about everything behind, forever. It's difficult to do, but imagine large parts of Southern California — including the land itself and everything on it — could be rendered useless, dangerous and unlivable for decades, maybe for hundreds of years.

If that doesn't humble you and make you think long and hard about our energy future, then nothing will. At some point, we must recognize that no matter how knowledgeable we think we are, we're still human beings with flaws and frailties. We are susceptible to "human error," sometimes compounded by overwhelming natural disasters. Mistakes and misjudgments are inevitably part of the human experience. But when they involve nuclear power generation, the consequences can be catastrophic.

### III.

For these reasons, I repeat myself and implore Southern California Edison to set aside whatever plans it may have to seek the re-licensing of San Onofre nuclear reactors. By any standard, these facilities are old, in some respects decrepit — and their continuing operation poses an unacceptable risk to public health and safety. The San Onofre Nuclear Generating Station is nearing the end of its expected lifecycle. Instead of a fierce, costly, and exhausting license extension fight in which we endlessly argue about the probabilities of experiencing a nuclear nightmare scenario, I believe we should use the next few years to constructively engage the entire Southern California community — this includes Southern California Edison's top managers and scientists as well as a broad array of business and labor leaders, local elected officials, and hundreds of intelligent citizens who would step forward — to work together to achieve a safer, more reliable energy future for all of us.

That better future I'm talking about isn't pie in the sky. It is becoming available to us right now. On February 5th, the *Los Angeles Times* published a remarkable article, chronicling the progress of solar power installations throughout Southern California, most notably in the Mojave Desert and east of San Diego. These projects — more than 20 of them — at various stages of approval and construction, are not boutique pilot projects. In fact, taken together they are calculated to generate 8500 megawatts of electricity for Southern California — enough to meet the electricity needs of more than 5 million homes where more than 10 million Southern Californians live. This is nearly four times the 2200 megawatts produced at San Onofre. (Incidentally, San Onofre has been shut down since early February, following a steam-generator tube leak in one reactor and the discovery that similar steam tubes in the plant's other reactor were prematurely wearing out. Today, San Onofre is producing zero electricity.)

In chronicling the progress of the solar power installations soon to come on line, the *Times* didn't sugar-coat the difficulties that lie ahead — some technical, some environmental, some economic and political. But it's clear that these solar facilities will be part of our energy future in the next five to ten years. Moreover, natural gas production is soaring, providing even greater supplies of lower-cost energy. These developments, in turn, enable us to undertake the formidable task

of planning for the safe decommissioning of San Onofre, including deconstruction of the nuclear facility. Perhaps elements of the San Onofre plant can be repurposed for electric power transmission that relies on relatively clean and safe technologies — such as major solar installations, wind turbines, and natural gas.

Mindful of the immense human tragedies that our limited lexicon now denotes simply as Three Mile Island, Chernobyl and Fukushima, I think these three catastrophic failures should humble us and cause us to work tirelessly for a safer, smarter, better energy future. I personally believe what I think most of us believe — that we should again put public safety and good planning first; that we should put people ahead of utility company profits; and that we should be good stewards for our community, for our civilization, and for this beautiful planet that we are so fortunate to call our home.

**Questions for Irvine City Staff  
City Councilmember Larry Agran  
March 27, 2012**

- 1) In the event that the San Onofre nuclear power plant experiences a Chernobyl-like or Fukushima-like catastrophic failure — resulting in a major, widespread radioactive contamination field — what are our City's public safety responsibilities? Are we prepared to cope with such an emergency?
- 2) What is the emergency response chain of command within our City? What are the prescribed roles and responsibilities of the Mayor, the City Council, the City Manager, and the Director of Public Safety? What are the responsibilities of other public and private entities — Southern California Edison, the County of Orange, the State government, the federal Department of Homeland Security?
- 3) Are we prepared to respond to an evacuation order — to evacuate our entire City if ordered to do so, or to receive and provide for evacuees from elsewhere? Are our responsibilities clearly set forth in an evacuation plan available for public review?
- 4) Do we have equipment to measure radioactive contamination? Do we have access to sufficient masks, special suits and other protective equipment for our public safety workers and for the general public? Do we have iodine pills for widespread distribution to protect against thyroid cancer?
- 5) Does our City of Irvine 20-Year Energy Plan address policy issues regarding the sources of electricity to meet future energy needs? Does the Energy Plan presume or propose policies that would provide for safer, more reliable energy sources such as major Southern California solar installations — and reduced dependence on nuclear power generation? Does the Energy Plan consider conservation measures that presume a short-term, long-term, or permanent shutdown of San Onofre?
- 6) Does the draft City of Irvine Budget for FY 2012-2013, soon to be submitted by the Mayor and City Manager, include stepped-up funding for emergency preparedness to cope with a catastrophic failure at San Onofre?
- 7) Have the Mayor and City Manager been in communication with the highest officials at Southern California Edison to inquire as to their intentions regarding San Onofre — to either permanently shut down and decommission the nuclear power plant in 2022, or to apply for license renewal that would extend operations to at least 2042?
- 8) In the event that Southern California Edison pursues license renewal, what is the process and what options are available for City participation before state and federal agencies?