

A petition has been signed by 155 residents of 27 cities and presented to the CEP. Chairman Victor says it will be discussed on Thursday (Thursday, March 22 at the Laguna Hills Community Center, 25555 Alicia Parkway, Laguna Hills, 92653, 5:30-8:30). It is not clear how Chair Victor or the CEP plan to deal with this but please come and support the petition for a special meeting dedicated to external threats (including worst case scenarios) and what could happen if there is a radiation disaster. The petition calls for the meeting to be held in San Clemente with a program and speakers chosen by Gary Headrick, Ace Hoffman, and Roger Johnson. Below I have an updated version of what was submitted to the CEP. It contains background information and links to resources about these topics which the CEP has not covered in any detail.

PETITION TO THE CEP FOR A SPECIAL MEETING

Background The country was shocked when terrorists attacked the World Trade Center with truck bombs in 1993 and again with airplanes in 2001. We were further shocked when the 9/11 commission later reported that the terrorists also considered attacking a nuclear power plant (NPP) instead of the World Trade Center. A NPP is a choice target both because it is vulnerable and also because it is a force-multiplier: every NPP already contains huge quantities of deadly uranium and plutonium. The nuclear fuel at San Onofre (thousands of tons) is “spent” only in the sense that its profitability is spent. The radioactivity it can generate will remain lethal for thousands and even millions of years. Doesn’t the danger we face require some serious thinking about possible consequences to this area?

When San Onofre was designed and built in the 1960s, little consideration was given to external threats such as terrorism, large earthquakes, tsunamis, missile attacks, truck bombs, airplane crashes, drone attacks, and natural disasters. Little consideration was also given to the possibility that the thousands of tons of highly radioactive waste might remain on site for decades or centuries rather than moved to safe storage off-site as promised. What will happen if plumes of radiation sweep over this area with radioactive contamination that may last for months, years, decades, or centuries? Consider what happened at Fukushima: after seven years the radiation levels are still dangerously high and some estimate that it will not be safe to live there until the next century. The Chernobyl catastrophe happened in 1986 and some estimate that it will not be safe for 20,000 more years. Why are authorities here reluctant to deal with such serious issues?

External threats have to be taken seriously. Recent reporting by Nicole Perloth of the New York Times (see end notes) indicates that terrorists are now targeting utilities in general and nuclear power plants in particular. Sophisticated cyberattacks apparently have already penetrated a number of

American nuclear power plants with the intent of sabotage. Last summer (July 6) Perloth wrote a disturbing piece entitled: Hackers Are Targeting Nuclear Facilities, Homeland Security Dept. and F.B.I. Say. A few weeks ago on March 15 she followed it up with a more detailed front page report entitled Cyberattacks Put Russian Fingers on the Switch at Power Plants, U.S. Says. She also penned another piece for the business section, A Cyberattack in Saudi Arabia Had a Deadly Goal which described cyberattacks intended to cause explosions, not just power outages. These particular cyberattacks were aimed at petrochemical plants in Saudi Arabia because the country has no nuclear power plants (but it plans to build two by 2020 and have 16 by 2030). Once San Onofre gets all of its uranium and plutonium into dry cask storage it will be less vulnerable to cyberattacks but the main point remains: Terrorists are already selecting power plants (including nuclear power plants) as choice targets. They already have sophisticated systems for penetrating security and we should expect that they will not limit their methods to cyberattacks. In a study (see end notes) of the vulnerability of NPP facilities (including dry cask storage), the Sandia National Labs made a special point of saying that terrorists who wanted to attack hardened spent fuel storage facilities would choose weapons capable of producing maximum destruction.

No one foresaw that San Onofre would become a nuclear waste dump but that is now the reality. The deadly waste is now being transferred into thin canisters of questionable safety which will be stored indefinitely at ground level near the beach. Hopes for a better solution are dim and everyone now knows that we must start to prepare for many years of living in close proximity to thousands of tons of highly-radioactive nuclear waste. The nuclear industry and the government are unprepared for this dangerous state of affairs. Cities and towns and the people who live here are even more unprepared. It was hoped that Edison's Community Engagement Panel (CEP) would illuminate many of the issues of great concern but this has not happened. The CEP has been meeting since 2014, but the public has heard precious little of what it really needs to know. The public wants to know about all of the threats including worst-case scenarios. The public wants to know what would happen if radioactive contamination envelops our communities. The public wants to know what we should do now to plan for a possible radiation disaster.

The Petition A Petition is now presented to the CEP by way of chairman Professor Victor. The Petition and the names of 155 residents who signed on is presented along with the names of the 27 cities and towns in Orange and San Diego Counties where they reside. The Petition requests a special future meeting of the CEP devoted to education about possible threats as well as planning for radiation emergencies. The petitioners wish to bring in expert speakers who can discuss all threats, not just best-case scenarios. They want to know what are the threats including worst-case scenarios? How will the public be informed and protected in the case of a radiation emergency? What should individuals, authorities, and entire communities be doing now to learn more about the health hazards of radioactive contamination? What should everyone do in the event of widespread radioactive fallout? The meeting should be held in San Clemente. The organizers of this special meeting will be Gary Headrick, Ace

Hoffman, and Roger Johnson who will moderate the discussion portion of the meeting and select 2-3 outside experts to make presentations.

The situation we face today is much different from what the government and the nuclear industry promised almost a half-century ago. The public has witnessed accidents, safety violations, equipment malfunction, equipment design errors, human error, and even sabotage, radiation leaks, and acts of deception. The public has been exposed since 1968 to low-level radioactive releases in waters off our beaches and into the atmosphere we breathe yet we do not know for sure whether these might be resulting in excess cases of cancer, especially in children (see end notes). We were promised that the dangerous nuclear waste would be removed promptly but the government and the nuclear industry has failed on this promise. The government and the nuclear industry now claim to assure the country that nuclear waste will never be forced onto a community without consent (the President's Blue Ribbon Commission pledge to honor consent-based siting:

https://www.energy.gov/sites/prod/files/2013/04/f0/brc_finalreport_jan2012.pdf), yet that is exactly what is happening. No one ever consented to storing nuclear waste here indefinitely in this area of high population density (see end notes). Everyone is shocked that the best plan they can come up with is storing massive amounts of waste among millions of people in the middle of two major metropolitan areas. In short, the threat to the public has increased, the ability to protect the public has decreased, and the possibility of removing the waste as promised has evaporated.

The public also deplores the current strategy which is to make it sound as if a nuclear waste dump presents little danger. It is no longer acceptable to say that we don't have to do serious planning for radiation emergencies because these are events unlikely to happen at a closed plant. Let's face it, we are now the home of a dangerous nuclear waste dump for the indefinite future. A radiation catastrophe could render hundreds of square miles or more unlivable and worthless since no insurance covers radioactive contamination. Authorities have made few attempts to educate the public about what might happen and how the public should deal with a radiation emergency (see end notes). In 2017, Orange County held a very large public fair to publicize emergency awareness. San Clemente also held its own emergency preparedness fair. Neither "fair" had a single document, a single booth, a single speaker about the worst possible emergency: a radiation emergency. There is very little emergency planning for radiation, and very little effort to educate the public. Local, state, and federal government agencies as well as the nuclear industry are remiss in allowing this to happen. They are remiss in failing to inform the public about the threats and failing to inform us about what could happen to our homes and communities if we are inundated with radioactive contamination. Many have concluded that the failure is intentional: the threats are of unimaginable magnitude and there are no remedies if it happens (other than moving the waste off-site, a solution which is not happening).

The increased awareness of the dangers of living near a nuclear power plant have made the public much more vocal, hence this petition. The CEP was founded in 2014 with the stated purpose to “encourage an open dialogue of issues of interest to the community.” The very name “Community Engagement Panel” was chosen to emphasize a focus on community and a focus on the concerns of the community (rather than a focus on the agenda of the plant operator). Edison’s “Statement of Core Principles” (repeated at the beginning of every meeting) asserts its deeply held commitment to “Safety, Stewardship, and Engagement.” While Edison has addressed some of these issues, it avoids others. Why does Edison avoid holding meetings in San Clemente, the closest town to the new waste dump and the one most impacted? (See the end notes of past meetings.) Why has the CEP avoided addressing some of the worst dangers the public may have to face? Why is there no discussion of radiation disaster possibilities and worst-case scenarios? This Petition seeks to address these shortcomings.

The Risks Today the dangers of nuclear power are much greater than what we were promised in the last century. In addition to all the old dangers, we now also face new threats from missiles, drones, truck bombs, cyberattacks, and countless other dangers. Recent studies have enlarged the projections for large earthquakes in this area. The technology for storing nuclear waste safely remains experimental rather than proven since it was never envisioned that we would have to store nuclear waste for long periods in thin temporary canisters. The world has suffered from numerous nuclear accidents including some major catastrophes (see the end notes). Nuclear safety is not as good as we have been led to believe.

In order to confront such criticism, the nuclear industry over the years has responded with probabilistic risk assessments seeking to sooth us with a perception of safety. Unfortunately, the risks have increased and public confidence in nuclear safety has decreased. A report by the Union of Concerned Scientists (https://www.ucsusa.org/sites/default/files/legacy/assets/documents/nuclear_power/nuc_risk.pdf) concluded that risk assessments are seriously flawed and the use of their results actually increases rather than decreases danger to the public (see end notes).

A few examples illustrate the risks of probabilistic risk assessment. One risk assessment demonstrated on paper that the simultaneous failure of both emergency shutdown systems in a reactor would happen only once every 17,000 years. It was of considerable embarrassment when a double emergency backup system failure actually happened twice within four days in 1983 at two reactors at the Salem, N.J. nuclear power plant. In another example, the large and unexpected 5.8 earthquake that hit Virginia in 2011 was supposed to occur only once every 1,000 years. And with regard to the safety of nuclear waste, former assistant secretary of energy Robert Alvarez noted (https://www.nytimes.com/2014/10/30/us/in-us-cleanup-efforts-accident-at-nuclear-site-points-to-cost-of-lapses.html?_r=1) that a risk analysis prepared for WIPP (Waste Isolation Pilot Plant near

Carlsbad, NM) claimed there would be only one deflagration every 200,00 years. In 2014 (after only 15 years), fires, explosions, and radiation leaks closed the plant. It will not completely reopen until 2022 at a cost to tax payers of \$2 billion. Keep in mind that we are talking about some of the most deadly and dangerous elements known to science. Plutonium, for example, has a half-life of 24,000 years but it takes 10 half-lives for most of it to decay (think AD 242,018). It will be completely safe in 10 more half-lives, meaning in 2.4 million years.

The Safety of Spent Fuel Storage In 2006, the Sandia National Labs published a study in the National Academy of Sciences Press entitled “Safety and Security of Commercial Nuclear Spent Fuel Storage” (http://www.nap.edu/openbook.php?record_id=11263&page=R9). They kept secret the classified report but released a public version. Noteworthy:

1. The committee noted that nuclear power plants have been designed for safety, not for security. They note that spent fuel storage facilities would be very attractive targets for terrorists. They noted that attacks from rented aircraft, particularly those larger than the small planes used in studies, are possible. They also noted the danger of sabotage and stated that large earthquakes are of major concern.

2. The committee noted that the position of the nuclear industry is that large scale threats to NPP are not their concern but rather the concern of other branches of government. The nuclear industry therefore ignores such concerns and focuses on minor concerns. (Important note: Large scale threats are of great concern of the public. The fact that the nuclear industry ignores them does NOT mean they are not concerns.)

- 3.. The committee stated that analyses carried out for the NRC do not consider maximum credible scenarios. Instead, they employ qualitative judgments and reference scenarios based on previous terrorist attacks. The committee of scientists who wrote the report instead recommended more study of worst case scenarios. They observed that terrorists who wanted to attack hardened spent fuel storage facilities would choose weapons capable of producing maximum destruction.

4. The committee noted with some alarm that the NRC staff believes that terrorists attacks on spent fuel storage facilities are unlikely, would unfold slowly, and produce minimum releases of radiation. They assume there would be weeks or months to mitigate any damage. (We have heard these claims at CEP meetings.) The committee rejected this thinking and judged that the possibility of dangerous attacks cannot be dismissed.

5. The committee interviewed dry cask storage vendors and were told by the vendors that (A) Dry casks were designed for storage but were not designed to resist terrorist attacks; (B) customers (such as Edison) were more interested in the cost of the canisters than the design of the canisters. The committee concluded (details in the classified version) that there are scenarios where canisters could be breached and release off-site radiation into the community. “The committee judges that no cask provides complete protection against all types of terrorist attacks.”

6. The committee visited Germany to study a fire test of a Castor cask. This thick-walled cask survived the test but the committee commented that these results do not apply to thin-walled canisters (such as the ones used by Edison).

7. The committee noted that NRC regulations allowed lower levels of security for dry storage compared to wet storage. (Note: Edison has already applied for exemptions which would allow it to reduce their security force, eliminate their fire department, eliminate off-site radiation monitoring, eliminate off-site warning sirens, and reduce or eliminate response capability for terrorist attacks. Neither FEMA nor the California Office of Emergency Services will be called on to respond to a radiation emergency. Instead, this will become the responsibility of local cities and towns.)

8. The committee did not study all credible scenarios and instead focused mainly on airplane crashes and ground attacks by a small number of armed intruders. The committee did not study the dispersion of radioactivity from a breached dry cask. The committee did not study truck bombs, suicide attacks, mortar or rocket fire ,drone attacks, or missiles. (Note: It is understandable that the committee did not study drone or missile attacks since these threats have emerged only in the last few years. See endnotes for more discussion.)

The CEP Will the CEP be responsive to concerns of the community? Will it live up to its mission statements? In a memo dated Nov. 23, CEP chairperson David Victor indicated:

A. CEP agendas are not set in stone, topics are flexible, and topics already scheduled for 2018 are only drafts of possible meetings;

B. The CEP is open to suggestions not only from the panel but also from the public;

C. In keeping with the terms "community" and "engagement" the CEP wants to be responsive to topics and issues which are of concern to the public;

D. Chairman Victor expressed interest in covering security and "calamities" such as terrorist attacks.

The 155 petitioners listed below request that the CEP act favorably on their requests.

END NOTES

History of CEP Meetings Of the 20 CEP meetings (including the one scheduled for March of 2018), there have been seven in Oceanside, six in San Juan Capistrano, four in Laguna Hills, two in Dana Point, and only one (March 25, 2014) in San Clemente. It is telling that the CEP has carefully avoided meeting in San Clemente in spite of the fact that it is the city closest to San Onofre and the community which is

most in danger. The San Clemente Community Center holds 25% more people than the SJC Community Center which the CEP has used often. The proposed meeting on disaster planning (as well as many future meetings) should be held in San Clemente.

Population The San Onofre Nuclear waste dump is located about half way between the Los Angeles and San Diego metropolitan areas. The combined population of the greater Los Angeles and San Diego areas is about 22 million people. Los Angeles county has the largest population of any county in the United States (San Diego county ranks #5). After the Fukushima radiation disaster in 2011 the U.S. government recommended evacuation of everyone within 50 miles. About 8.7 million people live within 50 miles of San Onofre. This is possibly the worst possible place to locate a nuclear waste dump.

History of Radioactive Disasters While there has been much discussion at CEP about possible major or minor cracks in canisters, there has been no discussion of the kinds of catastrophes which are possible or have already occurred elsewhere. The IAEA (International Atomic Energy Agency) defines a nuclear and radiation accident as “an event that has led to significant consequences to people, the environment, or the facility.” Twenty-eight nuclear power incidents with multiple fatalities and more than \$100 million in property damage are widely known (https://en.wikipedia.org/wiki/Nuclear_and_radiation_accidents_and_incidents). All told, there have been 100 serious nuclear power accidents. Most people remember only Three Mile Island, Chernobyl, and Fukushima. Few remember that one of the worst disasters (Mayak in the former Soviet Union) involved a storage facility, not an operating reactor. Storage tanks blew up and contaminated hundreds of square miles with radioactive fallout which resulted widespread sickness and death from radiation poisoning. Many in California do not even remember the core meltdown and fuel processing fires at the Santa Susana Field Laboratory in Simi Valley. For a longer list of 67 radiation accidents up to 2014, visit https://en.wikipedia.org/wiki/Nuclear_and_radiation_accidents_and_incidents. What these radioactive “accidents” have in common is that authorities usually covered up and concealed what happened and then lied to the public, sometimes for decades. It would be prudent to assume that authorities will also lie to the public here about any future accidents at San Onofre. Edison has been cited by the NRC for mismanagement of the steam generator project and it hid from the public for 17 days details about the radiation that leaked into the environment from the failed steam generator. The nuclear industry engages in considerable PR efforts to promote the perception that nuclear energy is completely safe. The facts are otherwise. Some try to argue that the serious incidents elsewhere are irrelevant because they are not directly comparable to San Onofre. The point remains that there is a long history of accidents and even catastrophes at nuclear installations. Those of us who live nearby cannot dismiss these incidents and blindly accept the notion that there is very little risk.

Possibilities for Radiation Incidents The list is long including (in alphabetical order): Armed terrorist penetration, attacks from the air (missiles, drones, airplane crashes), attacks from ships at sea, attacks from land (truck bombs, rocket or mortar fire), canister failure, cyberattacks, earthquakes, equipment failure, fuel fires, human error, military conflict with other countries, sabotage, suicide attacks, tsunamis, water penetration, and wildfires.

Radiation and Cancer A widely-known concern about NPPs is the fact that all nuclear power plants regularly release low-level radiation into the environment. San Onofre has been discharging these emissions regularly into the ocean and venting them into the atmosphere since 1968. No one knows for sure if these emissions cause cancer or other medical problems for people living in surrounding communities. Many people worry about this, especially since the NRC bases safe exposure estimates on adult males even though it is known that women and children are far more vulnerable to radiation. It is estimated that the human fetus is about 50 times more vulnerable. The methodological difficulties of conducting a definitive epidemiological study are daunting. The USNRC has relied for many decades on a 1990 study by the National Cancer Institute which attempted to assess cancer risks for those living near NPPs. They failed to find a cancer link but the results are considered inconclusive because in science the failure to find a significant effect is never considered proof that there is no effect. The study was heavily flawed by today's standards. They relied on county-wide statistics so that, for example, a large city like Fullerton (40 miles from San Onofre) might have few excess cases of cancer. If these results were averaged they could wipe out any effect with a smaller city (like San Clemente) which is much closer to the emissions (2 miles). The NCI study examined where people died, not where they lived or worked. They did not adequately consider in- and out-migration, and they did not study children (the part of the population which is most vulnerable to radiation). Because of the weak methodology, it is not surprising that they failed to find cancer effects. Better and more recent studies in Europe have reported that living near a NPP doubles the rates of some types of cancer in children. The NRC, nevertheless, continued for decades to cite the outdated and heavily flawed NCI study as proof that populations living near a NPP are not being harmed by radioactive emissions.

Pressure mounted to update the flawed NCI study so in 2010 the NRC commissioned the National Academy of Sciences (NAS) to study whether further research should be considered. Two years later the NAS released a 460 page report called "An Analysis of Cancer Risks in Populations Near Nuclear Facilities." The study was authored by 20 eminent research scientists who specialized in radiation epidemiology. There was no research conducted and no data were gathered. Instead, the NRC limited the scope to studying the problem (it was labeled as a Phase One Feasibility Study). The NRC then commissioned a second study called Phase 2: Pilot Planning. This study again involved no data collection but instead it was a study of how to do a study if a study would ever be done. Three years later this second report concluded that a pilot study (not a full study) could be done and should be done. It recommended a detailed study of cancer streaks in the 31 mile radius around six of the nation's NPPs. San Onofre was chosen as one of the six NPP. The actual research was scheduled to start in 2015 but in September of that year the NRC decided to terminate the entire program without conducting any new research. It said that it could not afford the cost (\$8 million out of an annual budget of \$1 billion) and that it already knew that the results would not show any cancer effects. Local outrage led to a petition signed by 109 residents who asked their congressman (Darrell Issa) to help out by requesting funding from the house appropriations committee. Congressman Issa refused to help. The proposed research was never carried out. The troubling issue of possible cancer streaks surrounding NPPs continues to be studied elsewhere in the world but the nuclear industry has successfully blocked attempts to conduct research in the United States.

Risk Assessment Risk assessments are seriously flawed and are often used inappropriately (https://www.ucsusa.org/sites/default/files/legacy/assets/documents/nuclear_power/nuc_risk.pdf). According to this report: “The risk assessments assume nuclear plants always conform with safety requirements, yet each year more than a thousand violations are reported. • Plants are assumed to have no design problems even though hundreds are reported every year. • Aging is assumed to result in no damage, despite evidence that aging materials killed four workers. • Reactor pressure vessels are assumed to be fail-proof, even though embrittlement forced the Yankee Rowe nuclear plant to shut down. • The risk assessments assume that plant workers are far less likely to make mistakes than actual operating experience demonstrates.” Such factors are magnified at San Onofre because this plant has many more complaints from workers about safety violations than any other NPP in the country. What kind of damage could result from accidents at a NPP? A study done by the Sandia National Labs (the CRAC-II study, “Calculation of Reactor Accident Consequences”) concluded that nuclear accidents could cost \$300 billion (over \$1 trillion in today’s dollars), injure 150,000, and kill 50,000. This study is now outdated and was applied mainly to operating reactors, but nevertheless it illustrates the dangers of nuclear power. A major flaw with all risk assessments is that they tend to count only immediate costs and seriously underestimate long range consequences such as cancer. For example, about 2,000 Japanese continue to die every year not from old age but from medical and cancer issues caused when they were irradiated as children living on the outskirts of Hiroshima or Nagasaki in 1945.

The Reality of Cyberattacks

“Hackers Are Targeting Nuclear Facilities, Homeland Security Dept. and F.B.I. Say”

By NICOLE PERLROTH JULY 6, 2017

<https://www.nytimes.com/2017/07/06/technology/nuclear-plant-hack-report.html?action=click&contentCollection=Technology&module=RelatedCoverage&region=Marginalia&pgtype=article>

“Cyberattacks Put Russian Fingers on the Switch at Power Plants, U.S. Says”

By NICOLE PERLROTH and DAVID E. SANGER MARCH 15, 2018

<https://www.nytimes.com/2018/03/15/us/politics/russia-cyberattacks.html>

<https://www.nytimes.com/2018/03/15/us/politics/russia-cyberattacks.html?hp&action=click&pgtype=Homepage&clickSource=story-heading&module=first-column-region&region=top-news&WT.nav=top-news>

“A Cyberattack in Saudi Arabia Had a Deadly Goal. Experts Fear Another Try”

By NICOLE PERLROTH and CLIFFORD KRAUSS MARCH 15, 2018

Homeland security on cyber attacks on NPP <https://www.us-cert.gov/ncas/alerts/TA18-074A>

Dragonfly cyber attacks on power companies <https://www.symantec.com/blogs/threat-intelligence/dragonfly-energy-sector-cyber-attacks>

The Vulnerability of Nuclear Power Plants As mentioned above, the 9/11 attacks alerted the world to the alarming news that terrorists have already considered NPPs as choice targets for attack. This concern has been magnified by the emergence of North Korea as a rogue nuclear nation with 3 stage solid fuel ICBMs which tests have shown to be able to reach anywhere in the United States with conventional warheads. It is expected that soon they will have nuclear warheads, but nuclear warheads are unnecessary since San Onofre, for example, already has 1,773 tons (1,609 metric tons) of uranium and plutonium sitting at ground level. If enriched, this would be the equivalent of 20,000 Hiroshima-type bombs. North Korea has already conducted 150 missile tests including the Hwasong-15 (range 6700 km) and Taepondong-2 (range 10,000 km+). Another worry is IRBMs (Intermediate Range Ballistic Missiles) which can be launched from a mobile truck or concealed in a standard shipping container on any cargo ship. They were announced in 2006, have been successfully tested, and are for sale. With a range of 250 miles, they can reach their target in 10 minutes (<http://www.thedrive.com/the-war-zone/11723/israel-just-launched-a-containerized-ballistic-missile-from-the-deck-of-a-ship?iid=sr-link2>). The U.S. Bureau of Transportation lists 2,937 container ships. Hundreds of cargo ships regularly visit California waters. As far as other external threats to NPP, there have already been 7 military attacks on nuclear sites (https://en.wikipedia.org/wiki/Vulnerability_of_nuclear_plants_to_attack). San Onofre has already had incidents of sabotage. Many countries have bunker buster bombs (technically called the MOP or Massive Ordnance Penetrator). The U.S. sells them to other countries. MOPs can penetrate 60 feet of reinforced concrete or 200 ft of earth.

As for truck bombs, the Three Mile Island Alert Security Report concluded: "Regrettably, the NRC has permitted conditions to exist where the setback distances and the lack of blast deflection shields have not precluded a deadly release of radiation due to a truck bomb. We have concluded that the vehicle barrier regulations are mostly "window dressing." To strengthen security from truck bombs, the U.S. military recommended that truck bomb setbacks be placed at least 400 ft. away from a nuclear facility. This is impossible at San Onofre because Old Pacific Highway (where anyone can drive or park) is far closer than this. At the public San Onofre State Park, there are hundreds of places in the campgrounds, along the road, on the beach, or in designated parking lots where any vehicle can park. This could include trucks or RVs with concealed weapons that could fire rockets or mortars. San Onofre State Park is open to the public and hosts 2.5 million visitors a year.

With regard to airplane crashes, the claims of the nuclear industry that nuclear power plants are safe from crashes are not true. According to the Sandia report, most studies are computer simulations with favorable assumptions. One experiment was done in which a small (compared to a large commercial airliner) F-4 Phantom fighter plane was slid on a rail at 480 mph into a moveable concrete wall. It damaged the wall and moved it several feet as expected. This test was never designed to test the strength of the wall but the nuclear industry continues to claim that their concrete cannot be penetrated. The Sandia report concluded: "It is not possible to make any general statements about spent fuel storage facility vulnerabilities to air attacks that would apply to all U.S. commercial nuclear power plants." The report further notes that U.S. commercial nuclear power plants are not required by the Nuclear Regulatory Commission to defend against air attacks. The nuclear industry frequently states that these kinds of attacks are not their concern with the implication that such concerns should be dismissed (they have never been discussed at any CEP meeting). While these are not concerns of the nuclear industry or the NRC, they are definitely major concerns of the public. Some of the research on missile and aircraft attack is classified and cannot be discussed in public. But much is known and can be discussed. Above all, the NRC and the nuclear industry should never give the impression that such attacks are of no concern merely because details are classified.

Emergency Planning Although most cities and counties have emergency planning, almost all of it is directed at conventional emergencies. Cities tend to lump together all emergency planning even though plans for one type of emergency are completely irrelevant to other types of emergencies. Plans for radiation emergencies range from inadequate to non-existent and some of it seems dedicated to minimizing the dangers. This may be because Edison attempts to influence what is said about radiation dangers and town officials often uncritically accept Edison PR as fact. At the large and well-publicized emergency planning fairs held in 2017, both San Clemente and Orange County had no information of any kind about radiation emergencies. In the past, SCE has run an emergency planning partnership called the Interjurisdictional Planning Committee (IPC: <http://www.songscommunity.com/partnerships.asp>). But the future of this emergency planning is uncertain because Edison has asked for exemptions to be removed from emergency planning (for example to discontinue warning sirens, discontinue a fire department, discontinue off-site radiation monitoring, discontinue emergency coordination with cities, counties and federal agencies, and to reduce insurance coverage and plant security). The IPC was formed by Edison 1982 and it included only the local communities of SanClemente, Dana Point, and San Juan Capistrano. It does not include any cities in San Diego County except for Camp Pendleton. The IPC meetings are exempt from the Brown Act which requires transparency for government meetings. The IPC meetings are closed to the public and minutes/records/budgets are secret. Public information in San Clemente about a nuclear emergency is sketchy (<http://www.san-clemente.org/government/city-departments/public-works/emergency-planning/nuclear-emergency>) and it is not independent: it makes heavy reference to Edison as its main source of information. It tells us that radiation is everywhere and even our own bodies give off radiation. It includes Edison PR language which trivializes the amount of radiation that

NPPs give off. For evacuation it instructs everyone to get in their car and drive on I-5 north and assemble at the Orange County Fairgrounds. Bring your own bedding. 3 days of toiletries, a flashlight and credit card, etc. Parents will not be allowed to pick up their own children at school because the plan calls for them to be evacuated by school buses for later reunion with their parents, a plan that could not possibly work. For more information, people are supposed to listen to the radio and visit the SONGs website or call the Edison Community Relations Manager at 949-368-3365. This is hardly the kind of information that people need.