

# RADIOLOGICAL

## Regulatory Failure

***Nuclear Risks to Public Health and Safety Exposed***



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# Radiological Regulatory Failure

## *Nuclear Risks to Public Health and Safety Exposed*

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## **How to Read and Use this Chronological Report**

Public Watchdogs has unfolded a comprehensive, chronological and interlocked sequence of bureaucratic decisions, lawsuits, and analyses.

Detailed within this report is a recipe for disaster that sets the stage for an unnecessary replication of life-threatening lessons learned from Chernobyl, Three-Mile Island and Fukushima.

Therefore it has been designed to be a resource for a myriad of readers; utility fraud investigators, reporters, public policy experts, elected officials, regulatory law professionals, and concerned citizens. The timeline in Section #1 is especially useful to fraud investigators and reporters.

An initial high-speed overview is available within the first 14 Sections where each section provides a 'Summary Statement,' describing the documents in the context of the overall timeline, as well as an 'Exhibit' reference showing where each document can be accessed in its entirety. Each 'Exhibit' is separated by colored sheets and indexed to the applicable section contents for cross-referencing.


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## Foreword

“ The scenarios that lead to this condition [a meltdown] have very low frequencies of occurrence (i.e., on the order of one to tens of times in a million years) ... ”

*~ Nuclear Regulatory Commission Memo granting exemptions to off-site emergency planning requirements in the Atomic Energy Act of 1954.<sup>1</sup>*

**Mark Twain said there were three kinds of lies:** “Lies, Damned Lies, and Statistics.” The Nuclear Regulatory Commission (NRC) often quotes the probability of an event in terms of “millions of years.” The intent is to suggest that deadly nuclear disasters are “one-in-a million.”

Yet empirical evidence shows that as the world’s nuclear reactors age, meltdowns occur every eleven years on average. From 1979 to 2012 there were three: Three-Mile Island, Chernobyl, and Fukushima. Given that there is major meltdown every 11 years, the number of estimated meltdowns in the next million years is conservatively estimated at 91,000.

This document questions the credibility of the Nuclear Regulatory Commission, which claims that the probability of a nuclear accident at the decommissioned San Onofre Nuclear Generating Station (SONGS) is “low.” However, if you ask an insurance salesperson if you can buy insurance against a nuclear disaster at SONGS, he or she may inform you that the risk is uninsurable and that damages to real estate and health could easily be in the trillions of dollars.

This report tells you why SONGS is a deadly disaster waiting to happen. It isn’t a matter of “if” an accident will happen, but *when*.

The final exhibit in this document explains the risk from the perspective of an independent nuclear physicist. Read it and you’ll learn that the proposed nuclear waste dump at San Onofre contains, at minimum, the radiation equivalent of more than 40 Chernobyl disasters within its 75 thin-walled steel canisters. And because of its design, the probability of a “domino” criticality effect is extremely high. Specifically, if one of the canisters ignites, all of them could ignite, creating a disaster that rivals Fukushima.

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<sup>1</sup> See [Exhibit 16](#), page 43 of a 109-page Nuclear Regulatory Commission Memo on Emergency Planning from Thomas J. Wengert to Tom Palmisano of Southern California Edison exempting Southern California Edison from certain emergency responses. The subject line of the memo reads “SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3 AND INDEPENDENT SPENT FUEL STORAGE INSTALLATION - EXEMPTIONS FROM CERTAIN EMERGENCY PLANNING REQUIREMENTS AND RELATED SAFETY EVALUATION”

## **PREFACE**

People who read this document will be alarmed. They should be: It unfolds a chronological series of bureaucratic decisions at every level of government resulting in what we reveal as the greatest single, most dangerous threat to public health and safety in the U.S.A. today.

Southern California Edison has stated that on January 13, 2018 it plans to bury 3.6 million pounds of deadly high-level nuclear waste 108 feet from the water at San Onofre State Beach Park, the site of the utility's failed San Onofre Nuclear Generating Station, (SONGS).

The Independent Spent Fuel Installation or "ISFSI" (otherwise known as the San Onofre Nuclear Waste Dump) will be the largest privately-owned nuclear waste dump in the USA, and the world's biggest beachfront nuclear waste dump on one of the world's most beautiful beaches.

SONGS is among the first and most certainly the largest of all U.S. nuclear installations to go through the decommissioning process with the Nuclear Regulatory Commission, (NRC). As such, the lax regulations at SONGS will serve as a legal, ethical and environmental precedent for every remaining nuclear reactor in the country.

The plutonium in the radioactive waste at SONGS is deadly to all life for at least 250,000 years, but alarmingly, the waste will be stored in thin-walled canisters that are warrantied for a mere 10 to 25 years.<sup>2</sup> More problematic is the fact that the waste is located in a tsunami zone, next to a major earthquake fault line, and in a location that is easily accessible to terrorists leaving more than 8.5 million people who live within the 50-mile radiation plume zone identified by the NRC completely vulnerable.

After poring through more than 20,000 arcane regulatory documents on nuclear safety, it is the opinion of Public Watchdogs, that a nuclear accident at SONGS is inevitable.<sup>3</sup>

The sole responsibility of the Nuclear Regulatory Commission is to assure the "common defense and security" of the nation, and the "health and safety of the public." This document demonstrates that the NRC has failed in its mission. It accommodated Edison's requests by granting massive and reckless emergency planning exemptions to basic common sense regulatory requirements for just about everything off the SONGS facility site.

These NRC exemptions are the result of an agency that has been "captured" by the same industry it is chartered to regulate; it isn't that a fox is *in* the henhouse, rather, the fox is *running* the henhouse.

Public Watchdogs has identified some key findings. Paramount are that many of the exemptions shown in this document were granted with such callow disregard for the law and public safety that they may be, in fact, unlawful.<sup>4</sup>

SONGS has the potential to set a national precedent. At this time, at least 100 aging nuclear power plants are operating in the USA, and all of them will eventually be decommissioned.

Finally, just as the winds blow east, so do the national consequences outlined here in the '*Radiological Regulatory Failure: Nuclear Risks to Public Health and Safety Exposed*' at San Onofre.

This story must be told. The public has a right to know.

*Executive Summary, Next Page →*

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<sup>2</sup> For a copy of the warranty showing the ten and 25-year guarantees, see [Exhibit #22](#)

<sup>3</sup> For Public Watchdogs analysis of 100% probability, see, "[Earthquake Bay](#)," [Section 21, Exhibit 21](#), or online at <https://goo.gl/oZEK2u>

<sup>4</sup> See Section #4, page 15 of this document.



## **EMERGENCY RESPONSE**

### **EXECUTIVE SUMMARY**

A safety philosophy for emergency planning, preparedness and response are all developed to address a worst case scenario.

However, as the documentation within this white paper will clearly demonstrate, almost immediately after the radiation leak in 2012 and the abrupt closure of the generating station in 2013, Southern California Edison (SCE) made application to the Nuclear Regulatory Commission (NRC) for extensive exemptions of emergency planning for everything outside the site of their plant.

The entire application was predicated on SCE's misleading and presumptive best case scenario; that there was a "low likelihood of any credible accident at the plant in its permanently shut down and defueled condition that could result in radiological releases requiring offsite protective measures."

Misleading because, SCR's presumption of low risk regarding radiological releases of a shutdown plant is irrelevant to the never properly assessed separate and real risk of 3.6 million pounds of radioactive nuclear waste about to be buried; on an earthquake fault, in a tsunami zone, in the middle of 8.5 million residents, more millions of unsuspecting visiting tourists, smack beside an interstate highway and the second busiest rail corridor in the United States, 108 feet from the ocean, three feet above the water table, on a fragile bluff threatened by sea level rise and extremely corrosive sea salt air.

The only state California agency legally required by the NRC to be notified for these SCE emergency planning changes and exemption applications, the California Energy Commission (CEC), blasted a comprehensive rebuttal to the NRC. CEC Chair Weisenmiller vehemently opposed SCE's applications with detail and specificity outlining numerous reasons why the exemptions should be denied. The NRC responded about two-weeks later and by granting nearly all of the emergency planning exemptions.

Immediately the NRC then notified the Federal Emergency Management Agency (FEMA) that, *'based on the exemptions granted to SCE, in accordance with the Memorandum of Understanding (MOU) between FEMA and the NRC, the NRC no longer requires the Federal Emergency Management Agency (FEMA) to monitor, review, or report on off-site radiological EP and preparedness activities at SONGS.* Further that, preparedness activities *'will be limited to on-site activities; notification of off-site authorities in event of an emergency classification; requiring only on-site exercises with the opportunity for off-site response organization participation; and only maintaining arrangements for off-site response organizations (i.e., law enforcement, fire and medical services) that may respond to on-site emergencies as identified in the licensee's permanently defueled emergency plan.'*

FEMA then notified its FEMA Region IX, which includes the State of California that, *'The NRC further requested that FEMA notify the appropriate state and local governments that off-site radiological emergency plans and preparedness were no longer required as they relate to the San Onofre Nuclear Generating Station (SONGS).'*

A similar letter was then sent from FEMA Region IX to the California Office of Emergency Services (OES) which then advised both San Diego and Orange counties' Offices of Emergency Services that off-site emergency response was terminated.

Six weeks after SCE secured the NRC's emergency planning exemptions, SCE then secured a spot on the San Diego County Board of Supervisors meeting agenda seeking approval of a MOU regarding the off-site emergency planning fund. Another item on that same agenda was for the San Diego County Office of Emergency Services to ratify acceptance of a target donation to support the county's emergency preparedness.

The purpose of the MOU entered into by SCE, Orange and San Diego Counties and the cities of San Clemente, San Juan Capistrano and Dana Point was 'to document the mutual agreement of all signatory parties to continue collaborative and cooperative management of the radiological emergency preparedness, planning, response and recovery activities related to the San Onofre Nuclear Generating Station (SONGS) and to outline a cooperative funding agreement between the signatory local governments and SCE for such activities.'

Although recusing himself from voting on the September 15, 2015 San Diego County Board of Supervisors agenda item advocating for the removal and relocation of the SONGS spent nuclear fuel from the San Diego region, Supervisor Greg Cox proceeded to vote in the affirmative for the California Coastal Commission (CCC) vote on October 6, 2015 to approve a permit for SCE to bury millions of pounds of radioactive nuclear waste at San Onofre State Beach Park.

The CCC permit granted, now in legal appeal for revocation by the law firm of Aguirre/Severson on behalf of their plaintiff's, Patricia Borchmann and Citizens Oversight, is about to go into secret, closed door negotiations. Regardless of the outcome of these negotiations, it is imperative that the public be fully aware of the extreme danger posed by SCE's reckless abandonment its responsibility to a regional nuclear emergency response.

This white paper begs the question: **If the risk is so low of a radiological release, why did SCE need any emergency planning exemptions?**

*Section One, Next Page →*



## **SECTION 1**

### Emergency Exemptions; Timeline and Examples

#### **Section Summary Statement:**

The chronological timeline of when the actions of regulatory failure occurred is as revealing as how it transpired.

This section shows a timeline for the emergency exemptions and gives examples in a table format of some of the most egregious exemptions that put public health and safety at risk.

**Timeline and Examples of Exemptions next page →**



# Regulatory Failure Timeline: Emergency Exemptions

This table shows how in two days, the Nuclear Regulatory Commission (NRC), the Department of Homeland Security's Federal Emergency Management Agency (FEMA) terminated legal requirements for public safety enshrined in the 1954 Atomic Energy Act. The exemptions mean that Southern California Edison will no longer provide help required under the Atomic Energy Act to local first responders in the event of a nuclear disaster where radiation travels beyond the perimeter of the San Onofre Nuclear Generating Station (SONGS).







Date	Event
12/17/2014	<b>Edison Files for Application.</b> Southern California Edison's Tom Palmisano, files an application for Emergency Planning Modifications (exemptions) to the Nuclear Regulatory Commission based on a permanently shut down, defueled, plant condition. The modifications violate the provisions of the Atomic Energy Act of 1954.
5/14/2014	<b>California Energy Commission Protests.</b> California Energy Commission (CEC) Chair Weisenmiller responds with a strong letter of opposition urging denial of the application.
6/4/2015	<b>NRC ignores safety concerns: Exemptions are approved.</b> Southern California Edison's Tom Palmisano, receives approval from the Nuclear Regulatory Commission for "emergency planning modifications" based on the NRC's interpretation of the "underlying intent" of the Atomic Energy Act of 1954.
6/5/2015	<b>NRC formally changes to the Emergency Plan.</b> Southern California Edison's Tom Palmisano receives a blanket waiver from NRC from the majority of safety requirements in the Atomic Energy act of 1954. The exemptions that changed this plan are based on a "permanently defueled plant condition." As a result, Edison is no longer responsible for the effects of deadly radiation outside the plant perimeter.
6/5/2015	<b>Department of Homeland Security ordered to stand down.</b> NRC notifies U.S. Department of Homeland Security (HSA) that the Federal Emergency Management Agency (FEMA) "is no longer required to review, monitor, and report activities associated with off-site radiological emergency planning and preparedness as they relate to SONGS."
6/5/2015	<b>DHS Orders FEMA to stand down.</b> NRC further requests FEMA Region IX to notify state & local governments that Edison's obligation to provide off-site radiological emergency planning and preparedness as they relate to SONGS are no longer required.
6/30/2015	<b>Homeland Security (HSA) orders FEMA to notify California Governor.</b> HSA FEMA Region IX notifies CA Governor Office Emergency Services that FEMA is no longer budgeted to respond to an offsite radiation emergency. The letter is undated but is stamped as received on 6-30-2015.
7/21/2015	<b>FEMA notifies California Office of Emergency Services.</b> HSA FEMA Region IX notifies CA Governor Office Emergency Services of same. The letter is undated but is stamped as received on 7-21-2015.








48  
Hours





*Tables of Questionable Exemptions, next page →*

# SONGS Emergency Exemptions

A randomly selected list of questionable safety planning and emergency response exemptions granted Southern California Edison by ignoring provisions within the Atomic Energy Act of 1954 for nuclear reactors.

Description of Unlawful Exemption	 or 	Details
<p><b>Emergency Planning Zones –</b> Is Edison maintaining the ten mile “EPZ” as required under the Code of Federal Regulations?</p> <p><b>Text of law forbidding exemption:</b> [ CFR 10.47(b)(1) ]</p>		<b>No.</b> Emergency planning for a ten mile <i>radiation plume zone</i> is no longer necessary.
<p><b>Maintaining an Emergency Plan -</b> Is there a comprehensive Emergency Plan for a major radioactive release?</p> <p><b>Text of law forbidding this exemption:</b> [ CFR 50.47(b)(1) and 50.47(b)(4) ]</p>		<b>No.</b> Edison is not required to do any emergency planning or preparedness outside the SONGS perimeter
<p><b>Emergency Operations Facility:</b> Is Edison maintaining an EOF as required?</p> <p><b>Text of law forbidding this exemption:</b> [ CFR 50.47 (b) (3) ]</p>		<b>No.</b> The Emergency Operations Facility has been shut down
<p><b>Evacuation Plans:</b> Is there an evacuation plan as required by the Atomic Energy Act?</p> <p><b>Text of law forbidding this exemption:</b> [ CFR 10.57 (b) (10) ]</p>		<b>No.</b> This is now a local responsibility
<p><b>Does Edison have the ability to estimate a lethal radiation dose?</b> Is there a system in place at Edison to estimate the lethality and health issues of radiation released during the accident?</p> <p><b>Text of law forbidding this exemption:</b> [ 10 CFR part 50, Appendix E, Sec. IV. A.4 ]</p>		<b>No.</b> Requirements to estimate lethality of radiation leak are gone.

Description of Unlawful Exemption	 or 	Details
<p><b>Can Edison officials remain anonymous?</b></p> <p><b>Text of law forbidding this exemption:</b> [See requirement for organizational chart, 10 CFR part 50, Appendix E, Sec IV. A.3 ]</p>		<p><b>YES!</b></p> <p>Headquarters personnel may remain anonymous</p>
<p><b>Is there a responsible executive(s) in the event of an emergency?</b></p> <p>Is there an organizational chart that identifies responsible executives during a nuclear emergency at SONGS?</p> <p><b>Text of law forbidding this exemption:</b> [10 CFR part 50, Appendix E, Sec IV. A.3 ]</p>		<p><b>No.</b> Charts showing chain of command are no longer necessary</p>
<p><b>TERRORIST ATTACK: Is Edison prepared to work with local police?</b></p> <p><b>Text of law forbidding this exemption:</b> [ CFR part 50, Appendix E, Section IV. A.7 ]</p>		<p><b>No ...</b> not anymore ...</p>
<p><b>Does Edison have a LIST of Local Emergency Officials it must notify in a disaster?</b></p> <p><b>Text of law forbidding this exemption:</b> [CFR part 50, Appendix E, Section IV. D1 ]</p>		<p><b>No.</b> Maintaining lists of local First Responders is no longer required</p>
<p><b>Will the storage containers last millions of years?</b></p> <p>The hot radioactive waste at San Onofre is deadly to most life forms for millions of years.</p>	<b>Not Applicable</b>	<p><b>No.</b> Although the waste in the canisters is toxic for millions of years, the steel canisters and their concrete enclosures are only guaranteed to last ten to 25 years.</p>
<p><b>Will FEMA respond to a radiation disaster at SONGS?</b></p>		<p><b>No,</b> All funding for an off-site FEMA response has been terminated at the request of Edison.</p>

Description of Unlawful Exemption	 or 	Details
<b>Will California Office of Emergency Services be ready to respond?</b>		<b>No</b> , all offsite funding is eliminated thanks to Edison.
<b>Is the public notified Immediately</b> as required by law in event of a disaster?		<b>No</b> . Edison is not required to notify the public within 15 minutes of a radiation release.
<b>Will SONGS Air-Raid siren be used in a nuclear radiation emergency?</b>	<b>Not Applicable</b>	The siren is now silenced by funding cuts

*Section 2, next page →*



## **SECTION 2**

# SCE requests NRC Emergency Planning Exemptions

### **Section Summary Statement:**

Shortly after the radiation leak in 2012 and the 2013 plant closure, Southern California Edison (SCE) started lobbying NRC staffers for emergency planning (EP) exemptions for everything off the San Onofre site.

You'll see here that NRC staff seeks the NRC Commission approval to proceed with the process of granting those exemptions which eliminate NRC's requirements for offsite radiological emergency plans.

**[SEE EXHIBIT: #16](#)**

*Section 3, next page →*



## **SECTION 3**

# CEC Chair Objects to NRC granting SCE's Emergency Planning Exemption

## **Section Summary Statement:**

As subsequent documentation will show, proposed changes to SCE's Emergency Plan (EP) required that the NRC regulations notify the California Energy Commission (CEC) of the proposed revisions.

Upon receipt of the NRC's notification of the specific changes to the EP as proposed by SCE, CEC Chair Weisenmiller expressed concerns that these changes would 'unreasonably diminish the current safeguards necessary to ensure the public health and safety.' He also purported that, the NRC's failure to consider circumstances unique to California such as seismic and tsunami, would pose undue risk to the public's health and safety.

Approximately two weeks later the NRC granted virtually every change to SCE's EP anyway...

See [EXHIBIT # 16a](#)

*Section 4, Next page →*



## **SECTION 4**

### **NRC grants unlawful Emergency Planning Exemptions**



## **Section Summary Statement:**

### **The silence of the Atomic Energy Act**

It is the opinion of the authors that the safety planning and emergency response exemptions granted to the Southern California Edison monopoly are unlawful and unreasonable.

On June 5 of 2015, the Nuclear Regulatory Commission (NRC) granted sweeping exemptions from the safety requirements mandated by the Atomic Energy Act of 1954 on the grounds that the Atomic Energy Act of 1954 is “silent” on the issue of decommissioned nuclear reactors.

The NRC has interpreted this “silence” with recklessly permissive waivers from common-sense safety provisions. The resulting exemptions are little more than “get out of jail free” loopholes for the Southern California Edison monopoly in the event that things go horribly wrong.

But in this case, silence is not golden: It is deadly.

See [EXHIBIT: 16b](#)

**More →**

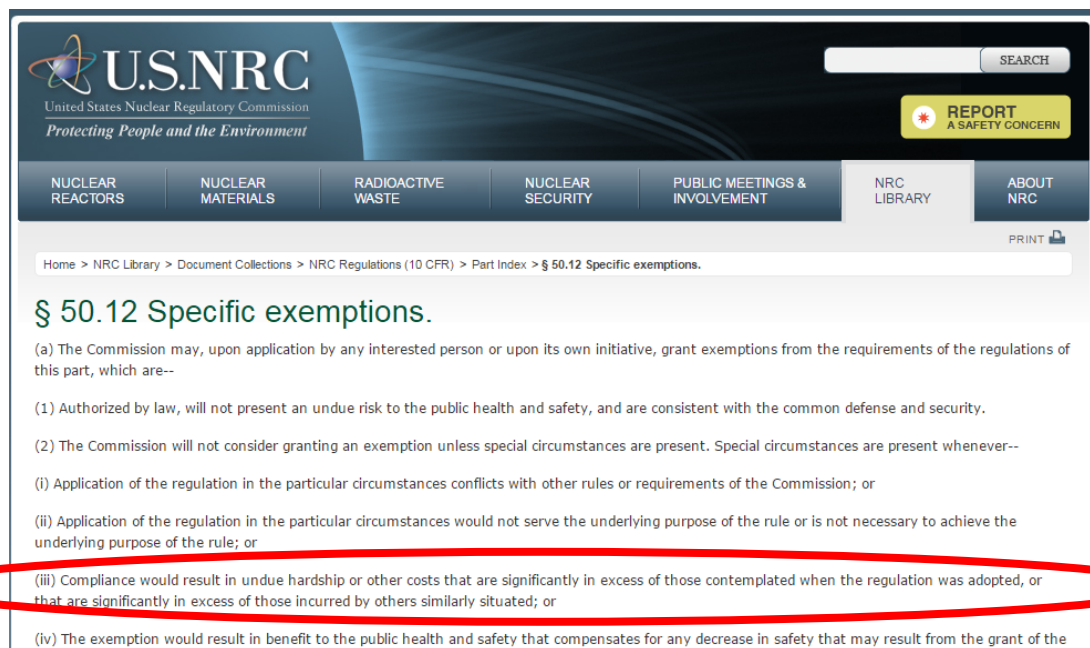
# Loophole #1: The “silence” of the law is interpreted to mean the law can be ignored

To address the alleged “silence” of Federal law, the NRC claims that the law must be *interpreted* in light of the “underlying purpose” and original intent. In the case of SONGS, the NRC granted sweeping blanket exceptions to common-sense safety features, such as a sirens and an emergency alert system for notifying the public of a nuclear disasters. But in a regulatory sleight-of-hand, the NRC has ruled that under CFR 50.12, that numerous precautions are no longer necessary.

## Code of Federal Regulation [§ 50.12 Specific Exemptions.](#)

CFR § 50.12 is an NRC “catch-all” loophole that enables the owners of nuclear facilities to violate almost every provision for public safety in the Atomic Energy Act of 1954. The biggest 50.12 loophole is Section (a)(iii), which argues that the NRC is not required to enforce the law in the event that it will cause “undue hardships or other costs.” This logic is like telling tax cheaters they don’t have to pay or do prison time if they can show “hardship.” The IRS would never allow this, but NRC does.

In addition, the NRC argues that exemptions granted Southern California Edison are legitimate because they serve the “underlying purpose” of the Atomic Energy Act, which, is concerned with “...the common defense and security and with the *health and safety of the public*” (emphasis ours).



The screenshot shows the NRC website header with the logo and navigation menu. The breadcrumb trail indicates the path to the regulation: Home > NRC Library > Document Collections > NRC Regulations (10 CFR) > Part Index > § 50.12 Specific exemptions. The title of the regulation is displayed in green. The text of the regulation is as follows:

(a) The Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of the regulations of this part, which are--

(1) Authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security.

(2) The Commission will not consider granting an exemption unless special circumstances are present. Special circumstances are present whenever--

(i) Application of the regulation in the particular circumstances conflicts with other rules or requirements of the Commission; or

(ii) Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule; or

(iii) Compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated; or

(iv) The exemption would result in benefit to the public health and safety that compensates for any decrease in safety that may result from the grant of the

Section 50.12(a)(iii): Federal regulators allow Southern California Edison to violate the Code of Federal Regulations if compliance causes “undue hardship or other costs.” [Get full text of 50.12 here.](#)

**More →**



## Loophole #2: For security purposes, SONGS has been reclassified as a “Medical Research Facility”

Even though the beachfront nuclear waste dump at SONGS contains the radiation equivalent of more than 700 nuclear warheads, and although the plutonium in the casks is deadly for 250,000 years, the new dump (called an ISFSI, or Independent Spent Fuel Storage Installation) has been reclassified by the NRC as requiring the same security as a “medical research facility.” Under the new NRC classification, SONGS does not require the vigilant security measures associated with an operating nuclear reactor.

10 CFR Part 50, Appendix E, Section IV, 10 CFR Part 50, Appendix E, Section IV.1.	NRC Staff Basis for Exemption
The NRC is granting exemption from portions of the rule language that would otherwise require onsite protective actions during hostile action.	The EP rule published in the <i>Federal Register</i> (76 FR 72560; November 23, 2011) amended certain requirements in 10 CFR Part 50. Among the changes, the definition of “hostile action” was added as an act directed toward a nuclear power plant or its personnel. This definition is based on the definition of “hostile action” provided in NRC Bulletin 2005-02, “Emergency Preparedness and Response Actions for Security-Based Events,” dated July 18, 2005 (AGANS Accession No. ML051740058). NRC Bulletin 2005-02 is not applicable to nuclear power reactors that have permanently ceased operations and have certified that fuel has been removed from the reactor vessel. SCE certified that it had permanently ceased operations at SONGS Units 2 and 3 and that all fuel at those units had been removed from the reactor vessels. Therefore, the enhancements for hostile actions required by the 2011 EP Final Rule are not necessary for SONGS in its permanently shut down and defueled status.
	Additionally, the NRC excluded non-power reactors from the definition of “hostile action” at the time of the 2011 rulemaking because, as defined in 10 CFR 50.2, a non-power reactor is not considered a nuclear power reactor and a regulatory basis had not been developed to assess the regulation of non-power reactors in the definition of “hostile action.” Similarly, a decommissioning power reactor or ISFSI is not a “nuclear reactor” as defined in the NRC’s regulations. Like a non-power reactor, a decommissioning power reactor also has a lower likelihood of a release requiring onsite protective measures than does an operating reactor.
	Although this analysis provides a justification for exempting SONGS from “hostile action” related requirements, some EP requirements for security-based events are maintained. The classification of security-based events, notification of offsite authorities and coordination with offsite agencies under a CEMP concept are still required.

View the full text of this exemption where it jumps from page 22 to page 23 of the pdf in [Exhibit 16b](#).

### Sleight of hand: How the NRC downgraded SONGS

First, the NRC reclassified SONGS as a “non-power reactor” under Section [10.CFR 50.2 “Definitions,”](#) which defines a non-power reactor as “a research or test reactor licensed under §§ 50.21(c)...”

However, a careful review of [Section 50.21](#) shows that non-power reactors are also classified as “medical therapy and research and development facilities.” In addition, 50.21(c) also cites [Section 31](#) of the Atomic Energy Act, which is defined as “Research Assistance.”

The bottom line is that the NRC, has intentionally downgraded the security requirements of a failed non-operating nuclear reactor to that of a medical research facility or “non-power reactor.” The reclassification drastically minimizes the emergency response obligations of Southern California Edison.

But unlike San Onofre, a medical research facility cannot melt down, making the reclassification as a “medical research facility” specious.

## Loophole #3: Terrorism and sabotage threats are largely ignored in safety planning

According to the NRC, SONGS poses no more risk to the public’s health than a medical research facility because “... the risk of sabotage is not considered in any standard reactor risk analyses ...”<sup>5</sup>

This cavalier view of terrorist threats is also expressed in the same memo, on pages 74 through 76, where the NRC states “the staff concludes that a decommissioning power reactor is not a facility that falls within the traditional definition of “hostile action.”<sup>6</sup>

In other words, the majority of requirements for protecting the largest privately owned<sup>7</sup> high-level nuclear waste dump in the United States from terrorists have been terminated.

**More →**

<sup>5</sup> See Wengert Memo to Tom Palmisano, [Exhibit 16b](#), Page 44 of pdf, Enclosure #2, page 6.

<sup>6</sup> See Wengert memo to Tom Palmisano, [Exhibit 16b](#) pages 74 through 76, paragraph 1, page 74 of memo.

<sup>7</sup> See Public Watchdogs’ List of [Decommissioned Nuclear Power Plants](#).

## Loophole #4: No requirement to identify government officials with the power to order evacuations or respond to terrorist attacks

10 CFR Part 50, Appendix E, Section IV.A.7.  The NRC is granting exemption from portions of the rule language that would otherwise require a description of the assistance expected from State, local, and Federal agencies for coping with a hostile action.	Refer to basis for 10 CFR Part 50, Appendix E, Section IV.1.
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From Memo "Wengert to Palmisano," [Exhibit 16b Enc 1](#), page 23, or page 24 of pdf.

## Loophole #5: All off-site emergency response to a nuclear disaster will be handled by local fire and police departments

10 CFR Part 50, Appendix E, Section IV	NRC Staff Basis for Exemption
10 CFR Part 50, Appendix E, Section IV.A.8.  The NRC is granting exemption from the requirement to identify the State and local officials for ordering protective actions and evacuations.	Offsite emergency measures are limited to support provided by local police, fire departments, and ambulance and hospital services, as appropriate. Due to the low probability of DBAs or other credible events to exceed the EPA PAGs, protective actions such as evacuation should not be required, but could be implemented at the discretion of offsite authorities using a CEMP.  Also refer to basis for 10 CFR 50.47(b)(10).

From Memo "Wengert to Palmisano," [Exhibit 16b Enc #1](#), page 24

## Loophole #6: Requirements for on-site response to a terrorist attack are waived.

10 CFR Part 50, Appendix E, Section IV	NRC Staff Basis for Exemption
10 CFR Part 50, Appendix E, Section IV.1.  The NRC is granting exemption from portions of the rule language that would otherwise require onsite protective actions during hostile action.	The EP rule published in the <i>Federal Register</i> (76 FR 72560; November 23, 2011) amended certain requirements in 10 CFR Part 50. Among the changes, the definition of "hostile action" was added as an act directed toward a nuclear power plant or its personnel. This definition is based on the definition of "hostile action" provided in NRC Bulletin 2005-02, "Emergency Preparedness and Response Actions for Security-Based Events," dated July 18, 2005 (ADAMS Accession No. ML051740058). NRC Bulletin 2005-02

More →

From Memo "Wengert to Palmisano," [Exhibit 16b, Enc 2](#), page 38/39 or page 76 and 77 of pdf. For the table shown above, see pages 20 and 21 of the document, or pages 22 and 23 of pdf.

## Loophole #7: Three workers will guard and maintain the world's largest and most dangerous beachfront nuclear waste dump (ISFSI).

Table B-1: ERO Minimum Staffing Requirements

Functional Area	Major Tasks	Emergency Positions	Shift Staffing	Augmented Staffing
1. Plant Operations, Assessment of Operational and Mitigation Aspects	Command Center Staff	Shift Manager ** Certified Operator **	1 1	
2. Emergency Direction and Control	Command and Control ERO Coordination	Shift Manager (Emergency Director) ERO Coordinator	1(a) 1	
3. Notification & Communication	Notification of: Licensee Local / State Federal	Shift Manager	1(a)	
4. Radiological Assessment	Supervision Dose Assessment Onsite Surveys within the EAB Offsite Surveys beyond the EAB	Radiation Protection Coordinator Shift Manager or Shift RP Technician Shift RP Technician ** RP Support	1(a) 1 (c) (c)(d)	1 (c)
5. Plant System Engineering, Repair, and Corrective Actions	Repair and Corrective Actions Chemistry	Technical Coordinator Certified Operator Support Personnel	(b) 1(a) (c)	
6. In-Plant Protective Actions	Radiation Protection	Shift RP Technician	1(a)	
7. Fire Fighting	---	Offsite fire fighting resources	(e)	
8. 1st Aid and Rescue	---	Shift Personnel and Offsite fire resources	(e)	
9. Site Access Control and Accountability	Security & Accountability	Security Personnel	(f)	
TOTAL:			3	2

Only three employees per shift will manage security and safety for the world's largest beachfront nuclear waste dump. See page 18 of pdf of Southern California Edison's internal [Permanently Defueled Emergency PLAN-1 Revision.2 Issued 03/30/2016](#). Exhibit 20, Part II Planning Standards and Criteria, B SONGS EMERGENCY, B-5 Emergency Response Organization.

An ISFSI is an Independent Spent Fuel Storage Installation, which is industry lingo for “High-Level Nuclear Waste Dump.” This Edison manual shows that in the event of a terrorist attack, earthquake, tsunami, or other incident resulting in a disaster, only three people will be available on site to respond.

The table at left is from an internal SCE document, titled *Permanently Defueled Independent Spent Fuel Storage Installation Plan*. It shows that the federally required staff for guarding and maintaining the world's largest beachfront nuclear waste dump is limited to only three people per shift (nine workers total for each 24-hour period).

Only three people will monitor the USA's largest privately-owned radioactive nuclear waste dump at any given time.

Section 5 →



## **SECTION 5**

### **NRC grants SCE Changes to Emergency Plan**

#### **Section Summary Statement:**

**Within 24 hours of granting SCE a swath of emergency planning exemptions**, the NRC immediately issued changes to SCE's Emergency Plan reflecting those very exemptions.

Once again California Energy Commission (CEC) Chair Weisenmiller [vehemently opposed](#) the proposed changes to SCE's Emergency Plan to no avail.

A summary of Weisenmiller's opposing comments to the NRC are provided on the next page.

Conversely to Weisenmiller's opposition, the NRC staff concluded that *'the revised SONGS emergency plan provided (1) an adequate basis for finding an acceptable state of emergency preparedness, and (2) reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency based on the permanently shutdown and defueled condition of the SONGS facility.'*

See [EXHIBIT: #16c](#) – specifically Section 4.0 entitled 'State Consultation'; Pages 23-30 of document, or page 31 of pdf.

**Next Page** – A summary of Chair Weisenmiller's objections →

## ***Summary of California Energy Commission objections to NRC Exemptions***

### **4.0 STATE CONSULTATION**

In accordance with the Commission's regulations, the California State official was notified of the proposed issuance of the amendments. The State official provided detailed comments in a letter dated May 14, 2015 (Reference 15). The following discussion addresses the State's comments, which are quoted from the body of the State's letter:

**State Comment 1:** But the NRC fails to consider circumstances unique to California's coastal nuclear facilities: risks to public health and safety associated with and exacerbated by the state's seismicity and risk of tsunami.

**State Comment 2:** The [Permanently Defueled Emergency Plan] license amendment request would decrease the safeguards to public health and safety in the event of a credible and foreseeable accident scenario at SONGS.

**State Comment 3:** [ ... ] the requested exemptions outlined above would eliminate the breadth of SCE's obligations to keep the State emergency response organizations and the general public informed in the event of an emergency.

**State Comment 4:** The exemptions would further reduce the State's ability to adequately and effectively respond to an emergency by discontinuing the federal requirement for support to State planning and monitoring activities, placing the health and safety of California citizens in jeopardy in the event of a plant emergency.

**State Comment 5:** [ ... ] SCE's license amendment request does not even contain implementing procedures, preventing the Energy Commission from understanding what changes it would need to make to its emergency response protocols if the exemptions and license amendment request are approved.

**State Comment 6:** In sum, the requested exemptions would eliminate substantial emergency plan requirements contained in 10 CFR Part 50, Appendix E, which in turn would necessarily reduce the effectiveness of any emergency plan going forward.

**State Comment 7:** Taken together, the license amendment requests would significantly reduce if not eliminate, notification procedures currently required by 10 CFR Part 50, Appendix E.

**State Comment 8:** For instance, the exemptions request proposes that the procedures requiring notification and interaction with State and local agencies as set forth in Part 50, Appendix E be eliminated almost in their entirety, based on the erroneous assumption that SONGS - in its present state with spent fuel in the cooling pool - be viewed as an ISFSI and/or MRS facility.

**State Comment 9:** [ ... ] the license amendment request fails to adequately analyze a number of credible scenarios whereby public health and safety may be put at risk, including from a seismic event or tsunami, and from the spent fuel rods maintained in the spent fuel cooling pool.

**State Comment 10:** The license amendment request, if granted, would eliminate the federal requirement that SCE take responsibility for planning a response to a spent fuel pool emergency that may last more than 10 hours. This problem would be compounded by the lack of clear notification procedures to the State otherwise required by Part 50, Appendix E.

**State Comment 11:** [ ... ] while spent fuel remains stored on-site in wet-cooling pools, the license amendment requests would likely result in a clear reduction in emergency plan effectiveness that cannot meet the requirements of 10 CFR § 50.54(q)(4) and companion Part 50, Appendix E emergency plan requirements.

Get the letter with these objections ( [Exhibit 16a](#) )

*Section 6 →*



## **SECTION 6**

# NRC notifies FEMA no longer required for Radiological Emergency Planning

## **Section Summary Statement:**

Once the NRC granted Edison their emergency planning (EP) exemptions and then the changes to Edison's emergency plans, a rapid-fire series of correspondence was then launched. The five back to back letters effectively gutted federal and state level assistance.

In the first letter the NRC notified FEMA's Director of Technological Emergency Management Agency that, *'based on the exemptions granted SCE, the NRC no longer required FEMA to monitor, review or report on off-site radiological EP and preparedness activities at SONGS.'*

Ultimately the five-letter blitzkrieg eliminated the ability of local emergency responders to call for help at the state and federal level.

See [Exhibit: 16d](#)

Section 7 →



## **SECTION 7**

# NRC notifies FEMA Region IX of Emergency Planning Exemptions

## **Section Summary Statement:**

**In the next letter, the U.S. Department of Homeland Security, FEMA in D.C. orders the regional Acting Administrator of FEMA to ‘*notify appropriate State and local government officials that FEMA will no longer review, evaluate and monitor off-site radiological emergency planning and preparedness activities surrounding the San Onofre site in accordance with 44 C.F.R. Part 350 (i.e. review and approval of state and local radiological emergency plans and preparedness) after June 4, 2015.*’**

See [EXHIBIT: #17](#)

Section 8 →



## **SECTION 8**

FEMA notifies Brown & Office of Emergency Services  
that Radiological Emergency Preparedness (REP)  
Program is discontinued

### **Section Summary Statement:**

The final two letters terminated vital public services.

The letter to Governor Jerry Brown from FEMA in D.C., notified Brown that FEMA will discontinue off-site Radiological Emergency Preparedness (REP) activities. The letter further stated that FEMA '*will no longer review, monitor, and report activities associated with offsite REP.*'

The second, a letter from the regional FEMA office, formally notifies the California Governor's Office of Emergency Services (OES) '*that FEMA will no longer review, approve and evaluate state and local jurisdictions' radiological emergency planning and preparedness activities as they relate to SONGS.*'

It's also worth noting is that FEMA no longer has authority to fund its Radiological Emergency Preparedness (REP) Program as it relates to SONGS.

See EXHIBIT: [17a](#) & [17b](#)

Section 9 →





## **SECTION 9**

### **San Diego County Board of Supervisors; SCE MOU, DoE and NRC Correspondence**

#### **Section Summary Statement:**

These documents raise significant questions about Southern California Edison's promises to the County Board of Supervisors that it would maintain offsite emergency response capability through 2019. Especially disturbing is the fourth document, *Memorandum of Understanding for Support of Radiological Planning and Response*, which shifts all training and emergency response capability to local governments.

Edison said it would maintain full off-site capabilities through the year 2019 at a County Board of Supervisors meeting on July 21, 2015. Yet other documents show that the corporation applied for -- and received -- sweeping emergency response exemptions from the NRC as of June 5 of 2015.<sup>8</sup> As a result of those sweeping exemptions, the Chair of the California Energy Commission<sup>9</sup> determined that Edison was no longer required to:

- Promptly inform the public and State emergency responders in the event of a nuclear emergency
- Fund State emergency response capabilities
- Be responsible for maintaining response capability for a radiation disaster that lasts longer than 10-hours such as spent fuel pool fires, earthquakes, and tsunamis.

**Did Edison deceive the County of San Diego?** In the July 21, 2015 Board of Supervisors agenda, Edison is quoted as: *'[expressing] its intent to remain fully compliant with regal requirements for an operating power plant and to continue paying for SONGS offsite emergency planning through calendar year 2019, despite SONGS no longer being in operation and no longer having a regulatory requirement from the Nuclear Regulatory Commission to do so.'*

Edison made these claims knowing that NRC had already exempted it from off-site emergency planning responsibility on June 5<sup>th</sup>.

See EXHIBIT: [18](#), and [18a](#), and [18b](#)

*Section 10 →*

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<sup>8</sup> See Section 4, page 15 of this Document "NRC Grants Unlawful Emergency Exemptions" memo from Wengert to Palmisano.

<sup>9</sup> See Letter from [California Energy Commission Chair to NRC](#) in Section 3 of this document.



## **SECTION 10**

### **SCE's CA Coastal Commission application to construct & operate ISFSI**

#### **Section Summary Statement:**

**On October 6, 2015, the California Coastal Commission granted Edison a permit** to bury 3.6 million pounds of nuclear waste at San Onofre State Beach Park under 'Special Conditions.' Special Condition #2 requires Edison to implement an Aging Management Program (AMP); a way of monitoring the canisters once they are buried. Underground monitoring is needed to:

- a. evaluate environmental conditions
- b. inspect cask for structural integrity
- c. assure their performance delivers as designed
- d. allow safe transport of the nuclear fuel out of San Diego County

**But Edison has no way to meet Special Condition #2. They admit in their own application that:**

- a. The monitoring technology not available
- b. Nor is it expected within the next 20 years
- c. The technology has never been previously demonstrated
- d. It's unknown when the monitoring techniques, tools & standards will be available

**Edison's inability to develop/deliver 'Special Condition #2' required monitoring will have consequences:**

- a. Makes SONGS a permanent nuclear waste storage site
- b. Increased risk to public safety
- c. Adverse effect to marine life

**SEE [EXHIBIT: #19](#)**

*Section 11, Next page →*



## **SECTION 11**

Aguirre/Severson Superior Court Case; Citizens Oversight vs. CA Coastal Commission/SCE

### **Section Summary Statement:**

Reasons why the Coastal Commission should not have rushed to grant Edison permission to store its nuclear waste at the location of the decommissioned San Onofre plant are referenced in further detail within Aguirre/Severson Superior Court lawsuit (Citizens Oversight/Patricia Borchmann vs. CA Coastal Commission and SCE).

See [Exhibit #19a](#), Page 13, section #35

*Section 12, next page →*



## **SECTION 12**

### SCE's Permanently Defueled Emergency Plan (PDEP)

#### **Section Summary Statement:**

*'The purpose of this Permanently Defueled Emergency Plan (PDEP) is to assure an adequate level of preparedness by which to cope with a spectrum of emergencies that could be postulated to occur, including means to minimize radiation exposure to plant personnel.*

*The PDEP describes the station's plan for responding to emergencies that may arise at the station while in a permanently shutdown and defueled configuration.*

See [EXHIBIT: #20](#)

*Section 13, Next Page →*



## **SECTION 13**

### Canister Manufacturer's Warranty

#### **Section Summary Statement:**

*The nuclear waste inside the Holtech Hi-Storm canisters is deadly for 250,000 years, yet the canisters are only guaranteed to last between 10 and 25 years. See attached Contractor's Warranties.*

[See EXHIBIT: 22](#)

*Section 14, next page →*



## **SECTION 14**

FREY: “40 times worse than Chernobyl”

### **Section Summary Statement:**

**Nuclear Physicist Paul Frey has concluded that a nuclear disaster** at San Onofre could be 40 times worse than Chernobyl. Frey prepared a visual series outlining the potential consequences as a result of San Onofre Spent Nuclear Fuel Canister Fires using Chernobyl damages and fallout patterns.

Frey outlines how, after an earthquake or tsunami, overheated canisters may cause a nuclear fire.

Frey provides visual depictions, both before and after, a San Onofre nuclear spent fuel canister fire.

[See Exhibit 23](#)

Next Section: Exhibits with hyperlinks →



## **SECTION 15**

### **EXHIBITS**

16. **12/17/14: Southern California Edison's (SCE) NRC Application for Emergency Planning Exemptions**
  - a. **5-14-15: CA Energy Commission (CEC) objects to NRC approval of reckless proposal**; San Onofre Nuclear Generating Station (SONGS) - License Amendments Regarding the Revision to Emergency Plan and Emergency Action Levels
  - b. **6-4-15: NRC approves exhaustive list of SCE emergency planning & public notification exemptions**: SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 1, 2, & 3 & INDEPENDENT SPENT FUEL STORAGE INSTALLATION – EXEMPTIONS FROM CERTAIN EMERGENCY PLANNING REQUIREMENTS AND RELATED SAFETY EVALUATION
  - c. **6-5-15: After Edison got exemptions NRC changed the Emergency Plan language**: SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 1, 2, & 3 & INDEPENDENT SPENT FUEL STORAGE INSTALLATION CHANGES & AMENDMENTS to EMERGENCY PLAN
  - d. **6-5-15: NRC tells FEMA it is no longer required**: NRC notifies FEMA their preparedness response activities are no longer required
17. **6-18-15: FEMA D.C. orders Regional FEMA to stand down**. FEMA Acting Assistant Administrator, National Preparedness Directorate sends letter to Acting Regional Administrator, FEMA Region IX; FEMA will discontinue evaluation of offsite emergency planning and preparedness activities
  - a. **6-25-15: FEMA in D.C. next notifies Gov. Brown** that its Radiological Emergency Preparedness (REP) Program in California is discontinued
  - b. **6-30-15: Regional FEMA then notifies California Office of Emergency Services** that Radiological Emergency Preparedness (REP) Program is discontinued
18. **7-21-15: San Diego County cuts deal without considering consequences**. COUNTY OF SAN DIEGO BOARD OF SUPERVISORS REGULAR MEETING AGENDA; OFFICE OF EMERGENCY SERVICES and SCE OFFSITE PLANNING EMERGENCY FUNDS
  - a. **9-22-15: San Diego County urges U.S. Department of Energy (DOE) to remove waste**
  - b. **10-16-15: San Diego County signs Memorandum of Understanding** (MOU) between Interjurisdictional Planning Committee (IPC) for Support of Radiological Emergency Planning and Response
19. **10-6-15 CA Coastal Commission (CCC) violates its own mission statement and special conditions** CCC approves SCE's application to construct and operate an Independent Spent Fuel Storage Installation (ISFSI) to store spent nuclear fuel in violation of its own 'Special Conditions'
  - a. **Aguirre/Severson Superior Court Case**; Citizens Oversight vs. CA Coastal Comm./SCE
20. **3-30-16: SCE's Internal Emergency Procedures Manual minimizes "worst case scenarios."** SCE's Permanently Defueled Emergency Plan (PDEP) Revisions
21. **2-16-17: Earthquake Bay**: Why a nuclear event at San Onofre State Beach Park is **unavoidable**
22. **5-6-15**: SCE's Canister Contractor Warranties
23. **5-6-17**: Paul Frey, Physicist, 'After San Onofre Spent Fuel Canister Fires', PowerPoint