

# San Onofre Radioactive Waste Poll Results

March 10, 2021

## **Abstract**

This brief details the results of a new survey of registered voters in the County of San Diego and the County of Orange ( $n = 1,000$ ). The survey was fielded from February 24, 2021 to February 28, 2021 and is the result of a collaboration between UC San Diego and The Samuel Lawrence Foundation. The data make clear that large majorities of registered voters in both Counties are highly concerned about the potential consequences of storing radioactive waste at the San Onofre nuclear power plant and support more transparency from utility companies when it comes to radioactive waste storage. The results further show that, after learning about the radioactive waste stored at San Onofre, an overwhelming majority support more aggressive federal, state, and local action to contain radioactive waste in order to protect the environment, the economy, and our communities.

## Introduction

Nearly 8.4 million people live within 50 miles of the San Onofre nuclear power plant, which quit making electricity in 2013. Critical transportation infrastructure—Interstate 5 and the Los Angeles-San Diego rail corridor—is located just east of the plant. Immediately to the west is San Onofre State Beach. The radioactive waste at San Onofre is about 100 feet from the beach and 18 inches above sea level. The toxic material is stored in thin steel canisters that are prone to corrosion and cracking. These canisters cannot be adequately monitored, inspected, repaired, or replaced. If these canisters corroded or cracked, radioactive material would leak. This radioactive material remains deadly for more than 200,000 years.<sup>1</sup>

If these canisters were damaged, it would be devastating for our oceans, including potential harm to sea life, seafood contamination, and the loss of our beaches. The potential consequences for our economy include an estimated \$13 trillion in economic losses, the closure of transportation corridors, and plummeting home values.<sup>2</sup>

## Poll Results

- Less than one out of every three respondents reported knowing that 3.6 million pounds of radioactive waste are stored at the San Onofre nuclear power plant
- The majority of respondents say that federal, state, and local governments are doing “too little” to contain radioactive waste produced by nuclear energy
- Energy companies such as Southern California Edison suffer from public trust deficit, as fewer than one out of every five respondents “strongly agree” or “agree” that energy companies can be trusted with the storage of radioactive waste produced by nuclear energy
- After learning about the radioactive waste stored at the San Onofre nuclear power plant, 71.8% of respondents “strongly agree” or “agree” that nuclear energy is a dangerous way to generate energy
- After learning that the radioactive waste stored at the San Onofre nuclear power plant will remain deadly for more than 200,000 years, 69.0% of respon-

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<sup>1</sup><https://semspub.epa.gov/work/HQ/176324.pdf>

<sup>2</sup>[http://www.samuellawrencefoundation.org/wp-content/uploads/2019/05/Economic\\_Impact\\_Study-San\\_Onofre\\_01082019.pdf](http://www.samuellawrencefoundation.org/wp-content/uploads/2019/05/Economic_Impact_Study-San_Onofre_01082019.pdf)

dents say they are “extremely concerned” or “very concerned” about the radioactive waste stored at San Onofre

- After learning about the economic consequences that a radioactive leak would create, 67.0% of respondents say they are “extremely concerned” or “very concerned” about the radioactive waste stored at San Onofre
- After learning that Southern California Edison discharges radioactive waste water into the Pacific Ocean, 81.7% of respondents say that they “strongly support” or “support” greater transparency from Southern California Edison
- After learning that independent monitoring of the radioactive waste stored at the San Onofre nuclear power plant would cost taxpayers \$200,000 per year, 73.7% of respondents say that they “strongly support” or “support” spending taxpayer dollars to independently monitor the radioactive waste at San Onofre
- After learning more about the radioactive waste stored at the San Onofre nuclear power plant, large majorities—over eight out of every ten respondents—say that federal, state, and local governments should do more to contain the radioactive waste stored at the San Onofre nuclear power plant

## Conclusion

This poll shows that large majorities of respondents are concerned about the storage of radioactive waste at the San Onofre nuclear power plant and that they support more aggressive actions to contain radioactive waste. Respondents say all levels of government need to take more aggressive actions to contain radioactive waste in order to protect the environment, the economy, and our communities. The results further identified a lack of trust in, and transparency by, energy companies like Southern California Edison. One potential solution to this trust deficit is to use taxpayer dollars to fund independent radiation monitoring by local scientists, which is supported by a supermajority of respondents. Radioactive waste management and its eventual transportation off site will be a decades-long, if not centuries-long, process that will require our continued vigilance and oversight in order to prevent generational harm.

## Methods

1,000 registered voters in San Diego County ( $n = 500$ ) and Orange County ( $n = 500$ ) were polled between February 24, 2021 and February 28, 2021. The margin of error is  $\pm 4.1\%$ . Registered voters were identified using data obtained directly from the San Diego and Orange County Registrar of Voters. Cell phones were scrubbed by Call Hub. Landlines and cell phones were sampled in the proportion they appeared in the voter file. The raw data are weighted to reflect the registered voter population by party, by age group (18-34, 35-55, 55+), and by sex.

### Q1

“How much attention do you pay to news about national politics on TV, radio, printed newspapers, or the Internet? A great deal, a lot, a moderate amount, a little, or none at all?” [rotate and randomize answer order]

	%
A great deal	25.7%
A lot	26.7%
A moderate amount	34.4%
A little	11.3%
None at all	1.9%
Don't know	—
Decline to answer	—
A great deal/A lot	52.4%

## Q2

“Which do you prefer for getting news? Television, radio, print publications, news websites or apps, social media such as Facebook, Twitter, Instagram, or Reddit, search through Google or other search engines, or podcasts?” [rotate and randomize answer order]

	%
Television	42.2%
Social media	13.8%
Search through Google/search engines	11.4%
News websites or apps	10.6%
Radio	10.6%
Print publications	5.4%
Podcasts	3.6%
Do not get news on any platform	1.0%
Don't know	3.6%
Decline to answer	—

### Q3a and Q3b

“Please tell me if you [agree or disagree/disagree or agree] with the following statement? Nuclear energy is **[a dangerous way to generate energy/is an important source of clean energy].**” [rotate and randomize answer order]

	“dangerous way” %	“clean energy” %
Strongly Agree	22.3%	11.5%
Agree	28.2%	18.5%
Neither agree nor disagree	29.0%	32.2%
Disagree	10.9%	20.1%
Strongly disagree	6.2%	10.1%
Don’t know	2.6%	7.7%
Decline to answer	0.8%	—
Strongly agree/Agree	50.5%	29.9%
Post-treatment strongly agree/Agree	71.8%	22.3%

**Q4a, Q4b, Q4c, and Q4d**

“Please tell me if you [agree or disagree/disagree or agree] with the following statement? You [can/cannot] trust energy companies [**blank/like Southern California Edison/like San Diego Gas & Electric/like Pacific Gas & Electric**] with the storage of radioactive waste produced by nuclear energy.”  
 [rotate and randomize answer order]

	Energy	Edison	SDG&E	Pacific
Strongly Agree	5.1%	6.0%	7.1%	6.9%
Agree	14.9%	16.8%	17.1%	15.9%
Neither agree nor disagree	37.0%	36.8%	27.8%	34.6%
Disagree	27.2%	25.6%	32.9%	28.9%
Strongly disagree	9.1%	8.8%	8.3%	8.1%
Don't know	6.7%	6.0%	5.9%	5.7%
Decline to answer	—	—	0.8%	—
Strongly agree/Agree	20.1%	22.8%	24.2%	22.8%
Post-treatment strongly agree/Agree	17.7%	16.4%	16.3%	18.3%

### Q5

“How much do you think the **federal government** is doing to address the effects of global climate change? Too much, about the right amount, or too little?” [rotate and randomize answer order]

	%
Too much	7.7%
About the right amount	24.6%
Too little	67.7%
Don't know	—
Decline to Answer	—

### Q6

“How much do you think the **State of California** is doing to address the effects of global climate change? Too much, about the right amount, or too little?” [rotate and randomize answer order]

	%
Too much	6.0%
About the right amount	20.5%
Too little	73.5%
Don't know	—
Decline to Answer	—

**Q7**

“How much do you think our **local governments—meaning our cities and counties**—are doing to address the effects of global climate change? Too much, about the right amount, or too little?” [rotate and randomize answer order]

	%
Too much	5.1%
About the right amount	22.9%
Too little	68.3%
Don't know	3.7%
Decline to Answer	—

### Q8

“How much do you think the **federal government** is doing to contain radioactive waste produced by nuclear energy? Too much, about the right amount, or too little?” [rotate and randomize answer order]

	%
Too much	7.1%
About the right amount	26.1%
Too little	57.8%
Don't know	9.0%
Decline to Answer	—

**Q9**

“How much do you think the **State of California** is doing to contain radioactive waste produced by nuclear energy? Too much, about the right amount, or too little?” [rotate and randomize answer order]

	%
Too much	6.6%
About the right amount	25.1%
Too little	57.8%
Don't know	10.5%
Decline to Answer	—

### Q10

“How much do you think our **local governments—meaning our cities and counties**—are doing to contain radioactive waste produced by nuclear energy? Too much, about the right amount, or too little?” [rotate and randomize answer order]

	%
Too much	6.2%
About the right amount	24.4%
Too little	58.1%
Don't know	11.3%
Decline to Answer	—

### Q11

Would you say each of the following is a MAJOR way that climate change is currently affecting your local community, or not? [randomize option order]

	Major	Not major	Decline
Droughts or water shortages	61.2%	38.5%	0.3%
Long periods of unusually hot weather	74.2%	25.6%	0.2%
Severe weather, like floods or intense storms	71.2%	28.6%	0.2%
Rising sea levels that erode beaches and shorelines	74.7%	25.1%	0.2%
Damage to forests and plant life	67.8%	31.7%	0.5%
Harm to animal wildlife and their habitats	69.2%	30.6%	0.2%
Cross-border sewage spills	69.8%	30.1%	0.1%
Radioactive waste produced by nuclear energy	67.5%	31.8%	0.7%

**Q12**

“The San Onofre nuclear power plant is located in northern San Diego County. Did you know that 3.6 million pounds of radioactive waste produced by nuclear energy is stored there?”

	%
Yes	31.7%
No	58.8%
Don't know	9.5%
Decline to Answer	—

### Q13

Main Experiment 1 [rotate and randomize answer order]

“A”

“How concerned are you about the radioactive waste stored at the San Onofre nuclear power plant?”

“B”

“The radioactive waste at the San Onofre nuclear power plant is stored in thin steel canisters that are prone to corrosion and cracking. If these canisters corroded or cracked, radioactive material would leak. The radioactive waste at San Onofre is about 100 feet from the beach and 18 inches above sea level. How concerned are you about the radioactive waste stored at the San Onofre nuclear power plant?”

“C”

“The radioactive waste at the San Onofre nuclear power plant is stored in thin steel canisters that are prone to corrosion and cracking. If these canisters corroded or cracked, radioactive material would leak. The consequences would be devastating for our oceans, including potential harm to sea life, seafood contamination, and the loss of our beaches. How concerned are you about the radioactive waste stored at the San Onofre nuclear power plant?”

“D”

“The radioactive waste at the San Onofre nuclear power plant is stored in thin steel canisters that are prone to corrosion and cracking. If these canisters corroded or cracked, radioactive material would leak. The consequences would be devastating for our economy, including an estimated \$13 trillion in economic losses, the closure of transportation corridors, and plummeting home values. How concerned are you about the radioactive waste stored at the San Onofre nuclear power plant?”

“E”

“The radioactive waste at the San Onofre nuclear power plant is stored in thin steel canisters that are prone to corrosion and cracking. If these canisters corroded or cracked, radioactive material would leak. This radioactive material would remain deadly for more than 200,000 years. How concerned are you about the radioactive waste stored at the San Onofre nuclear power plant?”

	A	B	C	D	E
Extremely concerned	22.0%	23.0%	23.5%	25.0%	26.5%
Very concerned	33.5%	40.0%	41.0%	42.0%	42.5%
Moderately concerned	30.0%	28.0%	30.0%	23.0%	21.0%
Slightly concerned	5.0%	6.5%	3.0%	6.5%	6.5%
Not at all concerned	9.5%	2.5%	2.5%	3.5%	3.5%
Don't know	—	—	—	—	—
Decline to answer	—	—	—	—	—
Extremely concerned/Very concerned	55.5%	63.0%	64.5%	67.0%	69.0%

### Q14

Main Experiment 2 [rotate and randomize answer order]

#### “A”

“How much trust do you have that the storage system holding radioactive waste at the San Onofre power plant will keep us safe?”

#### “B”

“The current storage system holding the radioactive waste at the San Onofre power plant cannot be properly inspected because the canisters used to store the radioactive waste are lowered into a silo with only a quarter-inch clearance on all sides, meaning there is no room for a human being to inspect the canisters. How much trust do you have that the storage system holding radioactive waste at the San Onofre power plant will keep us safe?”

	A	B
A great deal	21.4%	17.4%
A lot	24.6%	23.8%
A moderate amount	34.6%	31.2%
A little	10.0%	13.8%
None at all	7.0%	10.0%
Don't know	2.4%	3.8%
Decline to answer	—	—
A great deal/A lot	46.0%	41.2%

### Q15

“Southern California Edison releases radioactive wastewater into the Pacific Ocean. As described in a recent news article, “Unknown to most people, these radioactive discharges have been going on regularly—and secretly—for over a half century.” The article goes on to say that information about this is “buried deep in Nuclear Regulatory Commission files.” Would you [support or oppose/oppose or support] greater transparency from Southern California Edison, such as letting the public know beforehand when radioactive wastewater will be released into the Pacific Ocean and how much will be released?”

	%
Strongly support	38.5%
Support	43.2%
Neither support nor oppose	11.1%
Oppose	4.3%
Strongly oppose	2.5%
Don't know	0.4%
Decline to answer	—
Strongly support/Support	81.7%

### Q16

“UC San Diego uses sensitive radiation monitoring equipment to independently monitor the radioactive waste at San Onofre. This costs approximately 200,000 dollars per year, which is less than one one-hundredth of one percent—or 0.003 percent—of the combined annual budgets of San Diego County and Orange County.

Would you [support or oppose/oppose or support] spending 200,000 taxpayer dollars per year to independently monitor the radioactive waste at San Onofre?”

	%
Strongly support	34.5%
Support	39.2%
Neither support nor oppose	10.1%
Oppose	9.8%
Strongly oppose	6.1%
Don't know	0.3%
Decline to answer	—
Strongly support/Support	73.7%

**Q17**

“After learning more about San Onofre, do you think that the **federal government** should do more to contain the radioactive waste stored at the San Onofre nuclear power plant?”

	%
Yes	81.2%
No	17.9%
Don't know	0.9%
Decline to Answer	—

**Q18**

“After learning more about San Onofre, do you think that the **State of California** should do more to contain the radioactive waste stored at the San Onofre nuclear power plant?”

	%
Yes	82.3%
No	16.9%
Don't know	0.8%
Decline to Answer	—

**Q19**

“After learning more about San Onofre, do you think that our **local governments—meaning our cities and counties**—should do more to contain the radioactive waste stored at the San Onofre nuclear power plant?”

	%
Yes	81.9%
No	17.2%
Don't know	0.9%
Decline to Answer	—

**Q20**

“After learning more about San Onofre, do you think that Southern California Edison should be more transparent about what it is doing to contain the radioactive waste stored at the San Onofre nuclear power plant?”

	%
Yes	87.4%
No	11.3%
Don't know	1.0%
Decline to Answer	0.3%