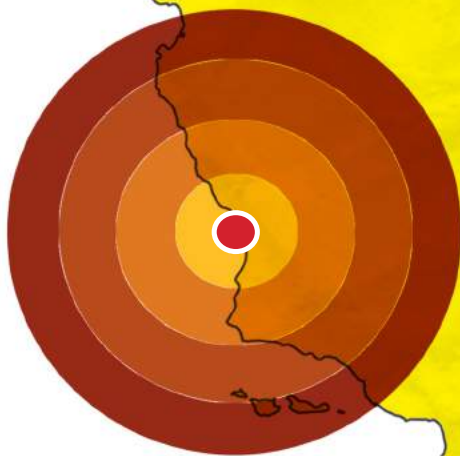


Disaster Accountability Project



Report On Emergency Evacuation Planning for Diablo Canyon Power Plant

Avila Beach, California



2016

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About Disaster Accountability Project

Disaster Accountability Project (DAP) saves lives and reduces suffering after disasters by maximizing the impact of preparedness, response, and relief through citizen oversight and engagement, policy research and advocacy, and public education.

DAP is the leading nonprofit organization providing long-term independent oversight of disaster management systems.

DAP engages a dedicated community to

- advance policy research and advocacy,
- promote transparency, and
- encourage the public to participate in oversight and lead discussions about disaster preparedness and relief.

Dedicated citizen oversight is necessary to ensure that preparedness, relief, and recovery are effective; communities are sufficiently engaged and more resilient; and best practices and lessons learned are implemented so that mistakes are not repeated.

Prior to the creation of DAP, there was no organization providing independent oversight of the agencies and organizations responsible for these critical life-saving responsibilities.

Additional information concerning DAP's ongoing disaster accountability efforts can be found at the organization's website: <http://www.disasteraccountability.org/>.

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The following report is part of a DAP initiative to investigate emergency planning and public awareness in the areas surrounding nuclear power plants operating in the United States.

The U.S. Government Accountability Office's Report Recommending Improved Emergency Preparedness Surrounding Nuclear Power Stations

In March 2013, the U.S. Government Accountability Office (GAO) released a report entitled *EMERGENCY PREPAREDNESS: NRC Needs to Better Understand Likely Public Response to Radiological Incidents at Nuclear Power Plants*.¹ GAO prepared its report in response to the nuclear emergency that resulted from the March 2011 earthquake and tsunami that severely damaged the Fukushima Dai-ichi nuclear power plant in Japan, and led to the largest release of radiation since the 1986 Chernobyl nuclear plant disaster.² As a consequence of radiation release, Japanese authorities evacuated nearly 150,000 people located within 19 miles of the stricken plant.³

At the same time, the United States Nuclear Regulatory Commission (NRC) recommended that U.S. citizens in Japan evacuate the area if they were located within 50 miles of the Fukushima Dai-ichi plant.⁴ The NRC recommendation stated that “[u]nder **the guidelines for public safety that would be used in the United States under similar circumstances, the NRC believes it is appropriate for U.S. residents within 50 miles of the Fukushima reactors to evacuate.**”⁵ The NRC recommendation was also broadcasted to U.S. citizens in Japan via a travel warning on the U.S. Embassy website in Japan.⁶ The NRC recommendation to evacuate a 50-mile zone exceeded the 10-mile emergency planning zone that is the current standard for nuclear plant emergency planning in the United States.

In the United States, the Federal Emergency Management Agency (FEMA) is responsible for overseeing preparedness by state and local authorities situated near nuclear plants.⁷ NRC regulations have established 10-mile emergency planning zones around domestic nuclear power plants.⁸ Local and state authorities within the 10-mile zone must develop protective action plans for responding to a radiological incident that include evacuations and sheltering in place.⁹ Local and state authorities also must provide information on radiation and protective actions to residents of the 10-mile zone on an annual basis.¹⁰

Subsequent to the Fukushima Dai-ichi disaster, the NRC has considered the adequacy of the 10-mile emergency planning zone size and has determined that no expansion is necessary.¹¹ The NRC concluded that a 1979 policy statement provides basis for the 10-mile emergency planning zone, including an

¹ United States Government Accountability Office. *Emergency Preparedness: NRC Needs to Better Understand Likely Public Response to Radiological Incidents at Nuclear Power Plants*. Washington, D.C.: Government Accountability Office, March 2013, GAO-13-243 (available at <http://www.gao.gov/products/GAO-13-243>).

² *Id.* at 1.

³ *Id.*

⁴ See *NRC Provides Protective Action Recommendations Based on U.S. Guidelines*, No. 11-050, March 16, 2011 (available at <http://www.nrc.gov/reading-rm/doc-collections/news/2011/11-050.pdf>).

⁵ *Id.* (emphasis added).

⁶ See U.S. Department of State Travel Warning, March 17, 2011, <http://japan.usembassy.gov/e/acs/tacs-travel20110317.html>.

⁷ United States Government Accountability Office, *supra* note 1. See also <http://www.fema.gov/radiological-emergency-preparedness-program>.

⁸ See 10 CFR 50.47(c)(2).

⁹ United States Government Accountability Office, *supra* note 1, at 5.

¹⁰ See 10 CFR 50 Appendix E Section IV.D.2.

¹¹ See *Program Plan for Basis of Emergency Planning Zone Size*, July 13, 2012 (ADAMS Accession No. ML12208A210).

assumption that the planning conducted for 10 miles provides a substantial basis for expansion of the emergency planning zone should it ever be necessary.¹² In 2014, the NRC reiterated its position when it denied a petition for rulemaking filed by the Nuclear Information and Resource Service and its co-competitors in an effort to modify the NRC's emergency planning rules.¹³ NRC's denial of the petition cited a lack of information available to government decision makers at the time of the 2011 Japanese incident and downplayed NRC's 50-mile evacuation recommendation, characterizing it as a "travel advisory."¹⁴

In support of maintaining the current 10-mile planning zone standard, NRC states that the information available to it during an incident on U.S. soil would be improved due to the presence of on-site NRC inspectors and direct communication lines from U.S. plants.¹⁵ Further, the NRC emphasized that "[s]tate and local authorities have a **robust capacity** to effectively evacuate the public in response to life-threatening emergencies."¹⁶ DAP questions the veracity of NRC's assertions regarding preparedness adequacy and effectiveness, especially given the current lack of planning outside the 10-mile zone.

GAO's report concludes that because residents beyond the 10-mile planning zone do not receive the safety and planning information that residents within the 10-mile zone do and, due to their lack of knowledge, may choose to evacuate even though they may be outside of the hazard area. Such "shadow evacuations" have the potential to delay evacuation of people most immediately in danger of exposure to radiological materials and are incorporated into evacuation time estimates.¹⁷ The GAO Report states:

[C]ommunities outside the 10-mile zone generally do not receive the same level of information as those within the 10-mile zone and therefore may not be as knowledgeable about appropriate conduct during a radiological emergency as those inside the zone and may not respond in a similar manner. If the public outside the zone evacuates unnecessarily at a greater rate than expected, these shadow evacuations would put additional traffic on roadways, possibly delaying the evacuation of the public inside the emergency planning zone and potentially increasing the risk to public health and safety. However, because neither NRC nor FEMA have examined public awareness outside of the 10-mile emergency planning zone, they do not know how the public outside this zone will respond. Specifically, they do not know if a 20-percent estimate of shadow evacuations is reasonable. Therefore, licensee evacuation time estimates may not accurately consider the impact of shadow evacuations. **Without estimates of evacuation times based on more solid understanding of public awareness, licensees and NRC and FEMA cannot be confident about the reliability of their estimates. If shadow evacuations are not correctly estimated, planning for a radiological emergency may not sufficiently consider the impact on the public outside the emergency planning zone.**¹⁸

¹² *Id.*; see also 44 FR 61123, Oct. 23, 1979.

¹³ See Petition for Rulemaking; denial, 79 FR 19501 (Apr. 9, 2014).

¹⁴ See *id.* at 19506-07.

¹⁵ *Id.*

¹⁶ *Id.* at 19505 (emphasis added).

¹⁷ See NRC, *Criteria for Development of Evacuation Time Estimate Studies*, NUREG/CR-7002 (Albuquerque, New Mexico: Nov. 2011) at viii (available at <http://pbadupws.nrc.gov/docs/ML1130/ML113010515.pdf>).

¹⁸ *Id.* at 26 (emphasis added).

In light of the GAO’s findings and conclusions, DAP surveyed current local emergency preparedness efforts and the level of information provided to the public regarding radiological emergencies within a 50-mile radius of the Diablo Canyon Power Plant (hereinafter “Diablo Canyon”), a nuclear power station located near Avila Beach, CA, and less than 10 miles from San Luis Obispo, CA, a city of over 45,119.¹⁹

Diablo Canyon Power Plant and the Population within 50 Miles

Since 2013, Diablo Canyon is the only nuclear power plant operational in California. Operated by Pacific Gas & Electric (hereinafter “PG&E”), it contains twin pressurized water 1,100 megawatt reactors. The licenses on both units have been renewed until 2024 and 2025, respectively.²⁰ Diablo Canyon was originally designed to withstand a 6.75 magnitude earthquake, but was later upgraded to withstand a 7.5 magnitude quake.²¹

Every nuclear power plant operator is responsible for maintaining evacuation time estimate reports for NRC inspection and filing any updated reports with the NRC.²² PG&E’s Evacuation Time Estimate (ETE) report filed with the NRC contemplates shadow evacuations from within the 10-mile emergency planning zone as well as a shadow region that is defined as the area between the 10-mile emergency planning zone border to a radius of approximately 15 miles from Diablo Canyon.²³ PG&E’s report estimates that 23,613 people live within the shadow zone and assumes that 20% of these would evacuate in a radiological emergency.²⁴ Any expansion of the shadow region to a 50-mile radius would significantly increase the population implicated in shadow evacuations. According to the Natural Resources Defense Council’s 50-mile Potential Contamination Zone, the 2010 population total was 471,000 people.²⁵

Figures 1 and 2 show the stark geographic variation between the established 10-mile emergency planning zone for Diablo Canyon and a larger 50-mile geographic radius, which corresponds to the recommended NRC evacuation area for the Fukushima Dai-ichi plant in 2011.²⁶

¹⁹ See <http://quickfacts.census.gov/qfd/states/12/12011.html>

²⁰ See <http://www.pge.com/en/safety/systemworks/dcpp/index.page>.

²¹ See “Diablo Canyon Nuclear Plant Should Survive Magnitude 7.2 Quake,” California Watch (July 22, 2011) at <http://californiawatch.org/dailyreport/diablo-canyon-nuclear-plant-should-survive-magnitude-72-quake-11654>.

²² See 10 CFR 50 Appendix E Section IV.5.

²³ See <http://pbadupws.nrc.gov/docs/ML1236/ML12363A209.pdf>.

²⁴ *Id.*

²⁵ See Natural Resources Defense Council at <http://www.nrdc.org/nuclear/fallout/>.

²⁶ The NRC also designates a 50-mile ingestion exposure pathway emergency planning zone from nuclear plants in its regulations. See 10 CFR 50.47(c)(2). The 50-mile emergency planning zone, however, is designated for the protection of food sources from radioactive fallout and the planning for the ingestion pathway does not contemplate evacuation or sheltering of the public beyond the 10-mile emergency planning zone. See United States Government Accountability Office, *supra* note 1, at 6. DAP chose to survey the local jurisdictions in the geographic area within 50 miles of Diablo Canyon based on the real-world evacuation recommendation made by the U.S. government for Fukushima Dai-ichi emergency and not based on the current 50-mile ingestion exposure pathway standard.

Fig. 1 - 10-mile radius from Diablo Canyon Power Plant - Emergency Planning Zone (shaded area)

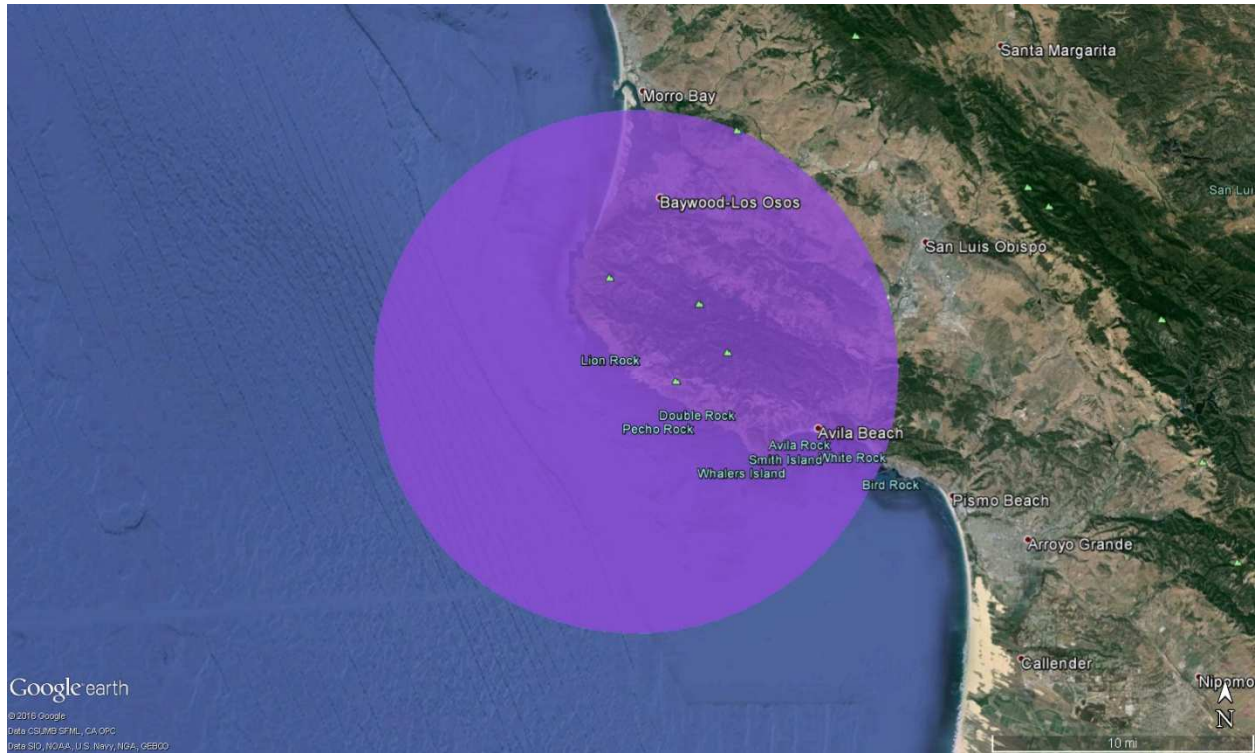
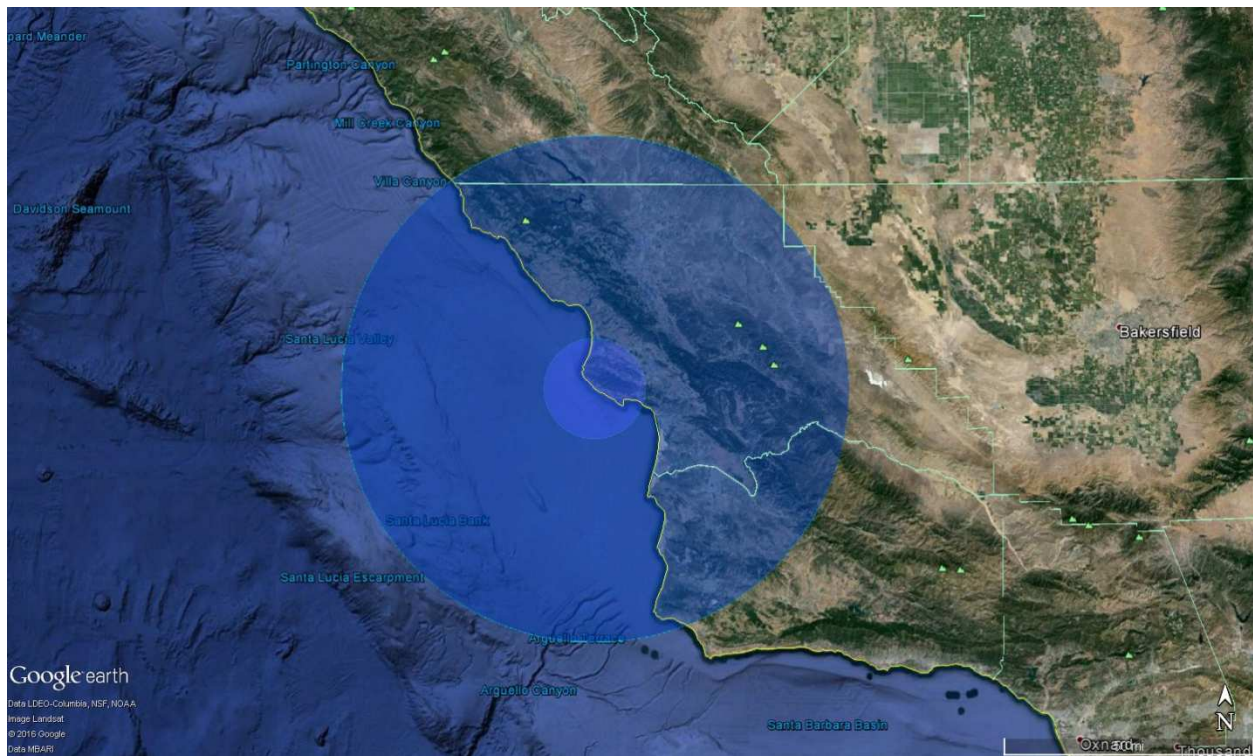


Fig. 2 - 50-mile radius from Diablo Canyon Power Plant (shaded area)



The 10-mile emergency planning zone encompasses the metropolitan area of San Luis Obispo in San Luis Obispo County in California. Further, according to the Natural Resources Defense Council's 10-mile Evacuation Zone, the 2010 population total was 38,000 people, and for the 50-mile Potential Contamination Zone, the 2010 population total was 471,000 people.²⁷

²⁷ See Natural Resources Defense Council at <http://www.nrdc.org/nuclear/fallout/>.

DAP Survey of Jurisdictions within 50 miles of Diablo Canyon Power Plant

Between December 2015 and January 2016, DAP sent 9 information requests to local jurisdictions²⁸ within the 50-mile radius of Diablo Canyon seeking the following four categories of documents and information:

1. Educational materials or plans provided to residents up to 50 miles away from Diablo Canyon regarding how to respond to a radiological incident at that plant;
2. All-hazard emergency plans and/or evacuation plans, including any materials regarding procedures to provide real-time information or instructions to residents during an emergency;
3. Emergency plans specific to radiological incidents at Diablo Canyon; and
4. All studies conducted on the likely rate of “shadow evacuations” related to Diablo Canyon, which are defined as “residents who evacuate during an emergency despite being told by authorities that evacuation is not necessary.”

Table 1 details the responses from each jurisdiction. Appendix A lists the documents received from each jurisdiction.

²⁸ DAP canvassed the entire geographic area within a 50-mile radius around Diablo Canyon by contacting every county government and major city within the region. Contact DAP if information is needed regarding the jurisdictional office or agency responding to DAP’s information requests.

Table 1. Responses to DAP’s Document Requests

Key

E - Jurisdiction stated that documents responsive to the request are exempt from disclosure

N - Jurisdiction stated that no documents exist or are in its possession

NR - Jurisdiction did not provide documents or written responses to the request

O - Jurisdiction did not provide responsive documents for another specified reason

P - Jurisdiction provided documents

State	Jurisdiction	Distance from Diablo Canyon (miles) ²⁹	Population ³⁰	Req. 1	Req. 2	Req. 3	Req. 4
CA	San Luis Obispo County ³¹	0	279,083	P	P	P	P
CA	City of San Luis Obispo	8	45,119	O ³²	P	P	NR
CA	City of Atascadero	19	29,096	N	P	N ³³	N

²⁹ DAP used a web-based tool to find these distances. See <http://www.daftlogic.com/projects-google-maps-distance-calculator.htm>.

³⁰ Most recent estimate by U.S. Census Bureau as of June 2014. See <http://quickfacts.census.gov/qfd/states/12/12011.html>.

³¹ San Luis Obispo’s nuclear power planning is “a joint and coordinated effort among the county and the five incorporated cities [Arroyo Grande, Grover Beach, San Luis Obispo, Morro Bay and Pismo Beach] in [its] Emergency Planning Zones . . . which is much larger than the federally required 10 miles.”

³² Email from Fire Chief Garret Olson on March 7, 2016: “The City contracts with the County for purposes of nuclear power plant planning. Our City residents receive materials provided to them by the County, as do all residents in the various NPP zones.”

³³ “[T]he City of Atascadero is within 50 miles of Diablo Canyon Power Plant (The Plant) but, according to scientists, the height of the Santa Lucia Mountains creates a barrier between The Plant and North San Luis Obispo (SLO) County, where we are located. As a result of this barrier the City is outside the Protective Action Zone (PAZ) areas for The Plant. The City is not directly involved in plans for response to radiological incidents at The Plant and all emergency plans related to The Plant are largely a function of the SLO County Office of Emergency Services (OES). In the event of an emergency, and/or evacuation, the City does have a mutual aid agreement with SLO County and would respond at the County’s request.”

CA	Santa Barbara County	24	423,895	N ³⁴	P	P ³⁵	N ³⁶
CA	City of Santa Maria	27	103,410	N	N	N ³⁷	N
CA	City of Paso Robles	30	29,793	N	P	N	N
CA	Monterey County	40	415,057	N	P	N	N
CA	City of Lompoc	42	42,434	NR	NR	NR	NR
CA	Kern County	49	839,631	N	P	N	N

Summary of Responses: Overall

- 8 out of 9 (89%) of the jurisdictions provided responses to the information requests.
- 1 out of 9 (11%) of the jurisdictions (City of Lompoc) did not respond at all.
- 1 jurisdiction³⁸ (San Luis Obispo County) within 10 miles of Diablo Canyon and 0 out of 7 jurisdictions between 10-50 miles of Diablo Canyon reported providing educational materials or plans to residents regarding how to respond to a radiological incident at that plant.
- 7 out of 9 (78%) of the jurisdictions provided all-hazard emergency plans and/or evacuation plans.
- 3 out of 9 (33%) of the jurisdictions provided emergency plans specific to radiological incidents at Diablo Canyon.
- Only 1 jurisdiction (San Luis Obispo County) furnished a shadow evacuation plan or study.

Summary of Responses: Within the 10-mile zone

- Both jurisdictions within 10 miles of the plant shared emergency plans specific to radiological incidents at Diablo Canyon.

³⁴ Although relevant materials were shared, the County's response read: "The only educational materials provided to residents are posted on our website and are attached to this email." (Santa Barbara County Office of Emergency Management).

³⁵ "We do not have independent plans specific to radiological incidents. Our planning efforts are based on the documentation maintained and provided by San Luis Obispo County Office of Emergency Services who I understand has already provided a copy of these materials. We do not possess copies of these documents."

³⁶ "We do not have studies on the likely rate of 'shadow evacuations' related to Diablo Canyon Power Plant. Studies are maintained and provided by San Luis Obispo County Office of Emergency Services who I understand has already provided a copy of these materials. We do not possess copies of these documents."

³⁷ County shared the San Luis Obispo County's Nuclear Power Plant Emergency Response Plan.

³⁸ Email from Fire Chief Garret Olson of City of San Luis Obispo on March 7, 2016: "The City contracts with the County for purposes of nuclear power plant planning. Our City residents receive materials provided to them by the County, as do all residents in the various NPP zones."

Summary of Responses: Outside the 10-mile zone

- Only one jurisdiction situated entirely outside the 10-mile zone³⁹ shared an emergency plan specific to radiological incidents at Diablo Canyon. Santa Barbara County disclosed that its plans for responding to a radiological incidents are based on emergency planning documentation maintained by San Luis Obispo County.

Jurisdictions Located within 10 Miles: One Provided a Shadow Evacuation Plan

Of the two jurisdictions along California’s central coast (San Luis Obispo County and City of San Luis Obispo) that constitute the 10-mile emergency planning zone, only San Luis Obispo County provided documents for all four of DAP’s information requests.

Request 1: San Luis Obispo County provided educational materials and/or plans as mandated by the NRC in the Code of Federal Regulations.

Request 2: San Luis Obispo County and the City of San Luis Obispo provided all-hazard emergency plans and/or evacuation plans.

Request 3: Both the City of San Luis Obispo and San Luis Obispo County provided emergency plans specific to radiological incidents at Diablo Canyon.

Request 4: One jurisdiction (San Luis Obispo County) within the 10-mile emergency zone provided any documents on shadow evacuations. The City of San Luis Obispo did not provide a responsive document.

The GAO report discussed at length the shadow evacuation issue as cited earlier in this report.

Jurisdictions Located Between the 10-Mile and 50-Mile Radius: None Provided a Shadow Evacuation Plan

Of the seven jurisdictions within the 10-mile to 50-mile geographic area surrounding Diablo Canyon (City of Atascadero, Santa Barbara County, City of Santa Maria, City of Paso Robles, Monterey County, City of Lompoc, and Kern County), six provided some type of response. The City of Lompoc was the only jurisdiction that failed to reply to any of DAP’s information requests.

Request 1: No jurisdiction beyond the 10-mile emergency planning zone indicated that it provided its residents with educational materials and/or plans regarding how to respond to a radiological incident at Diablo Canyon. Five jurisdictions stated that no such documents exist or are in its possession, and one (City of Lompoc) failed to provide a written response to the request. Santa Barbara County indicated that emergency plans can be found on the county’s website.⁴⁰

Request 2: Five jurisdictions furnished all-hazard and/or evacuation plans (City of Atascadero, Santa Barbara County, City of Paso Robles, Monterey County, and Kern County). Two of the seven

³⁹ San Luis Obispo County is an example of a jurisdiction whose emergency planning goes beyond the federally mandated 10-miles.

⁴⁰ See Important Information about Diablo Canyon Power Plant for Northern Santa Barbara County Residents at <http://www.countyofsb.org/ceo/asset.c/283>.

jurisdictions (City of Santa Maria and City of Lompoc) located between 10 to 50 miles from Diablo Canyon failed to share all-hazard emergency plans.

Request 3: One jurisdiction between the 10-mile and 50-mile emergency planning zone submitted responsive radiological information. Three counties provided information that was non-responsive to the request. The City of Atascadero responded with a claim of protection provided by a geographical barrier as a rationale for not providing residents with information concerning radiological incidents. Lastly, as previously stated, the City Lompoc did not provide any response to the information requested.

Request 4: None of the jurisdictions between 10 and 50 miles from Diablo Canyon provided any documents on shadow evacuations, the majority either claiming that no such documents exist or are in its possession, or referring to the evacuation plans of a jurisdiction more than 20 miles away.⁴¹

As the GAO pointed out in its previously referenced report:

Without estimates of evacuation times based on more solid understanding of public awareness, licensees and NRC and FEMA cannot be confident about the reliability of their estimates. If shadow evacuations are not correctly estimated, planning for a radiological emergency may not sufficiently consider the impact of the public outside the emergency planning zone.⁴²

Consequently, real gaps in emergency planning may occur without valid shadow evacuation estimates.⁴³

Conclusion: Public Education and Shadow Evacuation Planning are Inadequate within much of the 50-mile radius of Diablo Canyon Power Plant

California should not wait for the federal government to act. Many of the counties and cities within 50 miles of Diablo Canyon can and should voluntarily plan for emergencies beyond what is mandated by the federal government.

DAP agrees with the GAO Report's conclusion that further study is required to understand the level of public knowledge and the likely public reaction to a nuclear plant emergency, especially beyond the current 10-mile emergency planning zone.

The NRC only mandates an emergency planning zone of 10-miles for the areas surrounding Diablo Canyon. In contrast, the NRC's public guidance for the actual major nuclear plant disaster at the Fukushima Dai-ichi nuclear power plant recommended that U.S. citizens evacuate if they were located within 50 miles of the damaged Japanese nuclear plant. The NRC and FEMA have not satisfactorily reconciled this disparity between current planning and real-world guidance.⁴⁴

⁴¹ Santa Barbara County provided shadow evacuation plans belonging to San Luis Obispo County, which have respective distance of 24 and 0 miles from Diablo Canyon.

⁴² See NRC, *Criteria for Development of Evacuation Time Estimate Studies*, NUREG/CR-7002 (Albuquerque, New Mexico: Nov. 2011) at 26 (available at <http://pbadupws.nrc.gov/docs/ML1130/ML113010515.pdf>).

⁴³ *Id.*

⁴⁴ NRC recently stated that it "plans long-term action involving [emergency planning zones]" that will rely on a forthcoming Probabilistic Risk Assessment, the United Nations Scientific Committee on the Effects of Atomic Radiation's forthcoming report assessing radiation doses and associated effects on health and the environment, and from Fukushima Prefecture's Health Management Survey and that it will commence rulemaking efforts to

Days after the Fukushima Dai-ichi incident when Americans were encouraged to evacuate 50 miles away from the troubled plant, the Director of Emergency Planning at Entergy Energy (owner of Indian Point Energy Center) expressed that neither the company nor the NRC had sufficient information to draw up plans to evacuate New York City⁴⁵ (located 38 miles from the Indian Point Energy Center) which has a population of 8,336,697 people.⁴⁶

Shadow evacuations from populated areas beyond the current 10-mile emergency planning zones could result from a public informed and influenced by readily-available guidance even if local authorities instruct certain members of the public that no evacuation is necessary from their location.

Members of an uninformed public, who have not received the annual emergency preparedness information, likely will turn to other convenient sources of information in order to respond to an actual emergency. A search of the internet easily turns up several recommendations and suggestions for evacuation to points more than 50 miles away from a stricken nuclear plant, including the NRC's own press release about Fukushima Dai-ichi. In addition, other credible organizations such as Physicians for Social Responsibility and the Smithsonian Institution have websites discussing 50-mile evacuations.⁴⁷ Also, reliable, well-known media sources reiterate the NRC's 2011 Fukushima Dai-ichi evacuation recommendation and display maps showing the 50-mile radius for every U.S. nuclear plant.⁴⁸ This readily available, web-based information is a likely source to which the public will turn for guidance, especially in a moment of crisis and in the absence of other information from state and local governments.

State and local authorities should not wait for the imposition of federal regulatory mandates in order to implement this planning into state and local preparedness efforts.⁴⁹

In light of its findings, DAP believes that planning and dissemination of information to increase public awareness of the potential for radiological emergencies beyond the current 10-mile emergency planning zones is warranted. At a minimum, emergency planning authorities from jurisdictions beyond the 10-mile mandatory planning zones should provide better emergency response guidance to the public, conduct shadow evacuation studies, and plan accordingly, even if the federal government does not require it.

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Upon request, DAP will provide copies of correspondence with local governments in response to its information requests. A high-level index of the documents received from the survey effort is attached to this report in Appendix A.

make changes if those research efforts warrant changes. See Petition for Rulemaking; denial, 79 FR 19501, 19504 (Apr. 9, 2014).

⁴⁵ See "Operators of Indian Point Say Changes are Likely" at http://www.nytimes.com/2011/03/22/nyregion/22indian.html?_r=0.

⁴⁶ Most recent estimate by U.S. Census Bureau as of June 2014. See <http://quickfacts.census.gov>.

⁴⁷ See <http://www.psr.org/resources/evacuation-zone-nuclear-reactors.html> and <http://www.smithsonianmag.com/science-nature/do-you-live-within-50-miles-nuclear-power-plant-180950072/?no-ist>.

⁴⁸ See <http://www.wsj.com/articles/SB10001424052748703362904576219031025249872>.

⁴⁹ San Luis Obispo County is an example of a jurisdiction whose emergency planning goes beyond the federally mandated 10-miles.

Appendix A

Index of Documents Received From Local Emergency Planning Authorities within 50 Miles of Diablo Canyon

State	Local Jurisdiction	Documents
California	City of Atascadero	<ul style="list-style-type: none"> <input type="checkbox"/> Communication from Laura Christensen, Deputy City Manager in the City of Atascadero (February 2016); <input type="checkbox"/> Atascadero Fire Evacuation Plan; <input type="checkbox"/> City of Atascadero Multi-Hazard Emergency Response Plan (2011); <input type="checkbox"/> Operational Plan of Automatic Response and Use Between Atascadero City Fire and CDF/San Luis Obispo County Fire; <input type="checkbox"/> California Disaster and Civil Defense Master Mutual Aid Agreement.
	City of Lompoc	<ul style="list-style-type: none"> <input type="checkbox"/> None.
	City of Paso Robles	<ul style="list-style-type: none"> <input type="checkbox"/> Communication from Ken Johnson, Fire Chief in the City of Paso Robles (January 2016); <input type="checkbox"/> Santa Barbara Operational Area Emergency Management Plan (2013); <input type="checkbox"/> Important Information about Diablo Canyon Power Plant for Northern Santa Barbara County Residents; <input type="checkbox"/> EOP Annex A Earthquake Plan (2003); <input type="checkbox"/> EOP Annex B Hazardous Materials Response Plan (2003); <input type="checkbox"/> EOP Annex C Multi-Casualty Incident Operations Plan (2003); <input type="checkbox"/> EOP Annex D Storm / Flood Plan (2003); <input type="checkbox"/> EOP Annex E Major Fire Plan (2003); <input type="checkbox"/> EOP Annex F Civil Disturbance / Terrorism Plan (2003); <input type="checkbox"/> EOP Part 1 Basic Plan (2004).
	City of San Luis Obispo	<ul style="list-style-type: none"> <input type="checkbox"/> Communication from John Paul Maier, Assistant City Clerk in the City of San Luis Obispo (February 2016); <input type="checkbox"/> City of San Luis Obispo Emergency Operations Plan (2011); <input type="checkbox"/> San Luis Obispo County Nuclear Power Plant Emergency Response Plan (2013).
	City of Santa Maria	<ul style="list-style-type: none"> <input type="checkbox"/> Communication from Barbara Serio of the City of Santa Maria (January 2016); <input type="checkbox"/> Evacuee Monitoring and Decontamination - Drill (2011); <input type="checkbox"/> Standard Operating Procedure Southern Evacuee Monitoring, Decontamination (EMAD) and Reception Center Operations (2011).

Kern County	<input type="checkbox"/> Communication from Doreen Weston, Office Service Specialist of Kern County Fire Department (January 2016); <input type="checkbox"/> Emergency Operations Plans (available at http://www.kerncountyfire.org/).
Monterey County	<input type="checkbox"/> Communication from Sherrie Collins, Emergency Services Manager in Monterey County (January 2016); <input type="checkbox"/> Alert Monterey Brochure (2016); <input type="checkbox"/> Nuclear Plant Emergency Information for Agriculture (2012); <input type="checkbox"/> Monterey County Emergency Operations Plan (2014); <input type="checkbox"/> Monterey County Catastrophic Earthquake Mass Transportation and Evacuation Responses to the Public (2010).
San Luis Obispo County	<input type="checkbox"/> Communication from Anita Konopa, Emergency Services Coordinator in the County of San Luis Obispo (January and March 2016); <input type="checkbox"/> Emergency Plans (including the Emergency Operations Plan and San Luis Obispo County/Cities Nuclear Power Plant Emergency Response Plan available at http://www.slocounty.ca.gov/OES/plans.htm); <input type="checkbox"/> Evacuation Time Estimates (available at http://pbadupws.nrc.gov/docs/ML1236/ML12363A209.pdf); <input type="checkbox"/> NPP SOPs: <ul style="list-style-type: none"> <input type="checkbox"/> Emergency Services Director; <input type="checkbox"/> County Sheriff's Department; <input type="checkbox"/> County Sheriff's Watch Commander Procedures; <input type="checkbox"/> CAL FIRE/County Fire Department; <input type="checkbox"/> County Public Works and Transportation; <input type="checkbox"/> County Public Health Agency; <input type="checkbox"/> County Environmental Health; <input type="checkbox"/> Offsite Dose Assessment; <input type="checkbox"/> Protective Action Guidelines; <input type="checkbox"/> Emergency Environmental Monitoring; <input type="checkbox"/> Vehicle Monitoring; <input type="checkbox"/> Evacuee Decontamination-Camp Roberts; <input type="checkbox"/> Area, Vehicle, and Equipment Decon; <input type="checkbox"/> Emergency Worker Decon; <input type="checkbox"/> Emergency Worker Exposure Control; <input type="checkbox"/> Unified Dose Assessment; <input type="checkbox"/> Southern Evacuee Monitoring, Decontamination (EMAD) and Reception Center Operations; <input type="checkbox"/> Department of Social Services; <input type="checkbox"/> General Services Agency; <input type="checkbox"/> County Counsel; <input type="checkbox"/> County Agriculture Commissioner; <input type="checkbox"/> Air Pollution Control District;

		<ul style="list-style-type: none"> <input type="checkbox"/> Plans Section; <input type="checkbox"/> Logistics Section; <input type="checkbox"/> Operations Section; <input type="checkbox"/> Incident Command Post; <input type="checkbox"/> California Highway Patrol; <input type="checkbox"/> Caltrans; <input type="checkbox"/> State Parks and Recreation; <input type="checkbox"/> American Red Cross; <input type="checkbox"/> Cal Poly; <input type="checkbox"/> US Coast Guard; <input type="checkbox"/> City of Morro Bay; <input type="checkbox"/> City of San Luis Obispo; <input type="checkbox"/> City of Pismo Beach; <input type="checkbox"/> City of Arroyo Grande; <input type="checkbox"/> City of Grover Beach; <input type="checkbox"/> Cayucos Fire Protection District; <input type="checkbox"/> Port San Luis Harbor District; <input type="checkbox"/> County Office of Education; <input type="checkbox"/> San Luis Coastal Unified School District; <input type="checkbox"/> Cayucos Elementary School; <input type="checkbox"/> Lucia Mar Unified School District; <input type="checkbox"/> Cuesta College; <input type="checkbox"/> Paso Robles Event Center; <input type="checkbox"/> Bellevue Santa-Fe Charter School; <input type="checkbox"/> Before/After School Care Providers; <input type="checkbox"/> Nipomo High School/Pub School Relocation Center; <input type="checkbox"/> RACES; <input type="checkbox"/> Private Schools; <input type="checkbox"/> Route Alerting and Carless Collection; <input type="checkbox"/> NAR Packet Letter; <input type="checkbox"/> NAR Placard; <input type="checkbox"/> EAS Plan (2014); <input type="checkbox"/> Siren Test Postcard (2015); <input type="checkbox"/> Siren Poster (2015); <input type="checkbox"/> Important Information about Diablo Power Plant for Northern Santa Barbara County Residents; <input type="checkbox"/> Important Emergency Information; <input type="checkbox"/> Montana de Oro State Park Guide; <input type="checkbox"/> Public information ad campaign in local papers / magazines; <input type="checkbox"/> Booklet: Nuclear Power Plant Emergency Information for Agriculture; <input type="checkbox"/> Brochure for public employees; <input type="checkbox"/> Emergency Planning 2015 Calendar - Information about Diablo Canyon Plant for San Luis Obispo County Residents and Visitors; <input type="checkbox"/> San Luis Obispo County YP PhoneBook.
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	Santa Barbara County	<ul style="list-style-type: none"><li data-bbox="638 212 1365 275">☐ Santa Barbara Operational Area, Emergency Management Plan (2013);<li data-bbox="638 281 1365 386">☐ Brochure: Important Information about Diablo Canyon Power Plant for Northern Santa Barbara County Residents. (English and Spanish);<li data-bbox="638 392 1354 422">☐ Diablo Canyon Power Plant Ingestion Pathway Zone Map.
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Appendix B: Disaster Accountability Project History and Projects

2007

- DAP incorporated and filed for tax-exempt status.
- Compiled hundreds of post-Katrina policy recommendations in what later became a “Disaster Policy Wiki” to track the implementation status of “lessons learned.”

2008

- Successfully campaigned to compel FEMA to comply with federal law and elevate the position of FEMA Disability Coordinator.
- DAP's hotline served as a real-time listening device during Hurricane Ike and assisted numerous callers and countless others by directing details of gaps in critical services to responsible government agencies and nonprofit organizations.

2009

- Investigated and authored a report on the accessibility and modernity of emergency plans in twenty-two hurricane-vulnerable Louisiana parishes; this report prompted many parishes to update and improve public access to their emergency plans.

2010

- DAP's reports after the 2010 Haiti earthquake improved the transparency of over 1.2 billion U.S. Dollars (USD) and offered a first comprehensive look at how organizations were operating in Haiti at six months and one year after the earthquake.

2011

- DAP's report released in Port au Prince, Haiti on the first anniversary of the Haiti earthquake generated global media coverage.
- DAP returned to Haiti to conduct site visits of disaster relief centers in coordination with Haiti Aid Watchdog, a Haitian civil society organization.

2012

- DAP collected data from organizations immediately following the response to Superstorm Sandy in an effort to hold organizations accountable for the donations they raised.

2013

- DAP's successful complaint to the New York Attorney General after Superstorm Sandy compelled the American Red Cross to release 4 million USD to families that lost homes and were impacted by gross mismanagement of an American Red Cross recovery program.

In addition to the complaint, DAP engaged a bipartisan group of members of Congress, attracted media attention in the Wall Street Journal, USA Today, Al Jazeera America, among others, and directly engaged the donors behind nearly 100 million USD in American Red Cross donations.

2014

- DAP completed two investigations on the state-level standards of care for public health emergencies in Florida and Louisiana resulting in a commitment by Louisiana public health officials to make specific improvements to state public health emergency planning.
- DAP continued advocacy to improve accountability of major disaster relief organizations following Superstorm Sandy and expanded its oversight to include organizations operating after other disasters, such as the Joplin, Missouri tornado, West, Texas explosion, and Colorado floods.
- DAP partnered with the Center for High Impact Philanthropy to conduct an independent review to identify possible philanthropic and ‘impact investment’ solutions to address New Jersey’s housing crisis following Superstorm Sandy for The Jon Bon Jovi Soul Foundation.

2015

- DAP released five reports detailing a lack of emergency and evacuation planning within 50 miles of five U.S. nuclear power plants in New York, New Jersey, Virginia, Florida, and Illinois, including cities and counties in Connecticut, Pennsylvania, Delaware, Maryland, North Carolina, and Indiana.
- DAP’s work was cited numerous times in a GAO report on American Red Cross transparency and oversight, resulting in the introduction of the “American Red Cross Sunshine Act,” federal legislation to improve oversight of the organization.
- DAP released a major report one month after the Nepal earthquake assessing consistency and transparency of organizations’ online solicitations and surveyed nearly 100 organizations to assess the extent of their current activities and plans for future involvement in Nepal.