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Nuclear Power Plant Emergency Information

For Farmers, Ranchers, Nursery Stock Producers, Food Processors, and Distributors

Facts and Instructions You Should Know in Case of an Emergency at the San Onofre Nuclear Generating Station

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Prepared By the
California Department of Public Health,
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RADIOLOGICAL EMERGENCY INFORMATION

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NUCLEAR POWER PLANT RADIOLOGICAL EMERGENCY INFORMATION

Preface

This booklet was written for you: a farmer, rancher, nursery stock producer, food producer, processor, or distributor. Its purpose is to answer questions and help you be prepared if a radiological emergency occurs at the San Onofre Nuclear Generating Station.

State and county officials have developed comprehensive plans to respond in the unlikely event of a radiological emergency at the San Onofre Nuclear Generating Station. For the general public, plans have been made for the Emergency Planning Zone (that is, within about 10 miles of the plant). For the agriculture community, plans have been made for the Ingestion Pathway Zone, an area of about 50 miles around the plant.

If you live or work within the Emergency Planning Zone, you receive Emergency Information on an annual basis. Information is also listed in the local telephone book. Read it carefully, as it has important emergency information for you and your family.

It is extremely unlikely that a radiological emergency will occur. However, just as you should be prepared for other types of emergencies, it is important to understand and be prepared for a radiological emergency. This booklet summarizes some of the most important things to remember.



Map of 50 mile zone for San Onofre Nuclear Generating Station

What is a Radiological Emergency?

All nuclear power plants in the United States have backup safety systems. These safety systems would begin working immediately if a primary system failed. Their main purpose is to safely shut the reactor down and keep radioactive materials inside reactor systems. However, there are situations that could occur where radioactive materials may be released to the environment.

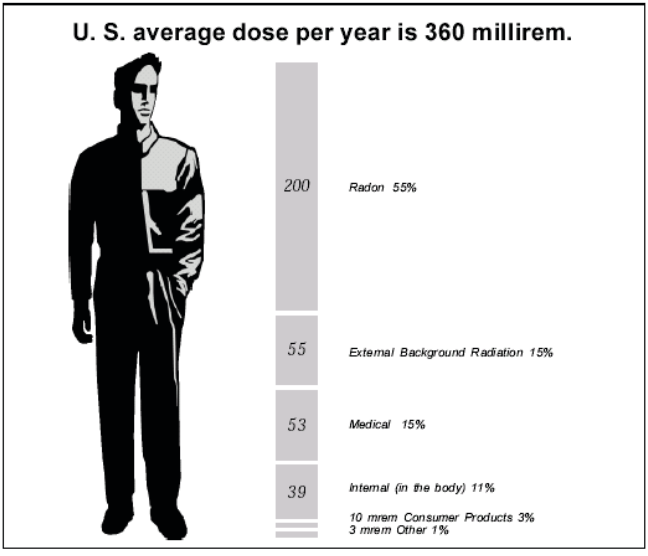
What is Radiation?

Radiation and radioactive materials are a natural part of our environment. We are continuously exposed to radiation from the sun and outer space. Radioactive materials are in the earth, in building materials, in our food and water and in the air we breathe. Our own bodies contain naturally occurring radioactivity. This natural radiation is called "background" radiation.

Levels of background radiation are different from one place to another. This is because of elevation, the types of rocks and minerals in the soils, and building materials.

The effects of radiation exposure on people are measured in units of "millirems." The following chart provides the average radiation dose for the public living in the United States. If you live within a few miles of the San Onofre Nuclear Generating Station, you might receive less than one millirem per year.

SUMMARY INFORMATION



How Will I Find Out if There is an Emergency?



If a nuclear power plant emergency occurs most people will be informed of the emergency by special news broadcasts on television and radio stations. If you live or work within the emergency planning zone (an area approximately 10 miles around San Onofre Nuclear Generating Station) you may also be alerted by Community Alert Siren System. These sirens would be activated if a public protective action was required such as evacuation or shelter-in-place. If you are alerted in one of these ways, tune to a local radio or television station.

Local radio and television stations will provide emergency instructions, along with a special phone number you can call for specific agriculture information. BE SURE TO STAY TUNED. When at sea, tune to marine Ch. 16. Additional emergency agriculture information would be available from:

State Agencies:

California Department of Public Health (CDPH)
PO Box 997377, M/S 7405
Sacramento, CA 95899-7377
(800) 550-5234 Governor's Office of Emergency Services Safety Referral Line, which would activate to provide emergency information following an incident.
www.cdph.ca.gov

California Department of Food and Agriculture
1220 N Street
Sacramento, CA 95814
(916) 654-0466 (Public Information Number)
www.cdfa.ca.gov

Local Agencies:

Orange County Agricultural Commissioner
Sealer of Weights and Measures
1750 South Douglass Road, Building D
Anaheim, CA 92806-7100
(714) 447-7100
www.ocagcomm.com

San Diego County Department of Agriculture
Weights and Measures
5555 Overland Avenue, Suite 3101
San Diego, CA 92123-1256
(858) 694-8988
www.sdcawm.org
E-Mail: sdcawm@sdcounty.ca.gov

Riverside County Agricultural Commissioner's Office
4080 Lemon Street, Room 19; PO Box 1089
Riverside, CA 92502-1089
(951) 955-3045
www. rivcoag.org

San Bernardino County Department of Agriculture
Weights and Measures
777 E. Rialto Avenue
San Bernardino, CA 92415
(909) 387-2105

Los Angeles County Agricultural Commissioner
Weights and Measures
12300 Lower Azusa Road
Arcadia, CA 91006-5872
(626) 575-5471
www.acwm.co.la.ca.us

Governor's Office of Emergency Services
(916) 845-8400 (Press Information Office)
(800) 550-5234 (activated after an emergency incident)
www.oes.ca.gov

United States Department of Agriculture
(800) 535-4555 (Food Safety and Inspection Hotline)
www.usda.gov

Federal Emergency Management Agency
(800) 462-9029 (Nationwide Disaster Assistance)
www.fema.gov/

American Nuclear Insurers
(860) 682-1301
www.amnucins.com

Federal Nuclear Regulatory Commission
800-368-5642
www.nrc.gov

What Should I Do if There is a Nuclear Power Plant Emergency?

The specific instructions you receive in the event of a radiological emergency would depend on:

- How far your farm, growing site, ranch, or facility is from the San Onofre Nuclear Generating Station
- The direction the wind is blowing during the emergency
- Crops/animals present within 50 miles of the power plant and status of harvest dates
- The type and quantity of radioactive material released

Here are the most important things to remember:

1. If a nuclear power plant emergency occurs and you live or work within the Emergency Planning Zone, you will be notified by the sound of a siren or an emergency vehicle with a loudspeaker.
2. If you are alerted in one of these ways, tune your radio or television to a local station for further information.

3. For areas outside of the Emergency Planning Zone, including counties such as Los Angeles, Riverside, San Diego and San Bernardino, tune to your local radio and television stations for official information.

4. Follow the directions you are given.

5. Local, state and federal agencies will coordinate efforts to have your crops sampled for radiation levels.

6. Call the emergency number you are given over the Emergency Alert System if you need more information.

How Might a Nuclear Power Plant Emergency Affect Food Supplies?

Radioactive materials released during an emergency from a nuclear power plant could be dispersed by the wind and then deposited on land, crops, livestock, food and water supplies. The impact on agriculture would depend on the distance from the plant, the direction of the wind, and the amount of radioactivity released.



Contamination means the presence of radioactive materials where they are not wanted. It does not necessarily mean a dangerous level of radiation exposure, nor does it mean that ill effects will result.

How Would State and County Officials Respond?

Under law, all levels of government and their associated agencies have the authority and responsibility to protect the lives and property of their citizens in an emergency, including a nuclear power plant emergency.

Several state agencies have responsibilities during a radiological incident at the San Onofre Nuclear Generating Station. These include the Governor's Office of Emergency Services(OES), California Department of Public Health (CDPH), and the California Department of Food and Agriculture (CDFA).

Governor's OES is responsible for coordination and management of state agencies that would respond to an incident at San Onofre. CDPH is responsible for the protection of the public from radiation hazards and the safety of food and water. CDFA has responsibility for certain food commodities and assisting in sampling these products.

State and county coordination is provided through the Orange and San Diego County Agriculture and Public Health Departments. Personnel from the appropriate county agriculture departments will assist with agriculture quarantines and crop certification.

Several of the response actions, which may be taken to protect agriculture products, animals, and other agriculture commodities, include:

- Temporary holding of food crops from markets
- Quarantine of food, animals, and other agriculture commodities
- Placing animals on stored feed in place of grazing or forage
- Placing movement restrictions on commodities and animals until they have been officially determined to be in compliance with appropriate health standards

- Decontamination or other means of handling contaminated animals and other commodities will be performed in accordance with the Sherman Food, Drug and Cosmetic Law; and the California Health and Safety Code.

- Commodities outside of quarantine areas may also need to be certified to meet destination shipping requirements

State and local agencies would instruct you of more specific actions for crops and animals during an emergency. Their instructions would be based on power plant conditions, the path of the radioactive release and the levels of contamination. In all cases, public health and safety would be the main concern.

What Can I Do To Protect My Crops/ Animals?

The main goals of state and county health and agriculture officials would be to help prevent contamination of the food supply and to keep any contaminated products from getting to the market. To accomplish this, officials would conduct an active sampling and analysis program to find contaminated products.

The following information provides steps you can take to help protect animals, crops, and the food supply in the event of a San Onofre Nuclear Generating Station emergency. You will also find information about steps the state health or the county agriculture department might recommend.



Personal Safety

- *Follow public instructions to evacuate or shelter*
- *Do not risk personal or worker safety trying to protect animals or crops*

Water

- *Wells or covered water sources are unlikely to be contaminated and can be used*
- *If notified in advance of potential release, cover sources of livestock water such as rain barrels and tanks.*
- *Disconnect filler pipes from storage containers supplied by runoff, and close water intake valves from any water sources that could potentially become contaminated*
- *After an emergency and prior to irrrigating, contact the County Department of Agriculture or await public instruction.*
- *Wait until water is tested before allowing animals to drink potentially contaminated water.*



Animals

- *If notified in advance of potential release, shelter animals in barns or protected areas if available*
- *If possible, provide adequate food and water for several days in the event you are asked to either evacuate or shelter in place*
- *Cover outdoor feed and water, if feasible*

Soil

- *Do not perform dust producing activities until instructed, as they may spread contamination*
- *Dust producing activities include cultivation, disking, mowing and harvesting*

Agriculture Products

- *Be aware that all produce will need to be certified prior to movement or sale after any radioactive release.*
- *Products from contaminated areas will need to be sampled and may be destroyed if contaminated. This includes fruits, vegetables, nut crops, nursery products, grains, feed supplies, meat and animal products, livestock, milk, poultry, eggs and honey. Do not sell or ship products until provided a written statement about the product's safety from the appropriate government agency*
- *In certain cases, products that have not yet been harvested may be safe by harvest time*



Home Products

- *Backyard gardens and personal livestock in areas exposed to contamination will also require sampling prior to consumption. Don't eat these products until told they are safe*



I'm a food processor/distributor. What should I do?

Contamination of milk or food products could occur during processing or transportation. After a nuclear power plant emergency, officials might restrict the transport of food products and keep them from the market in order to determine if they are contaminated. Do not release these products unless they are certified as safe and released by government officials. State and local officials will provide information on disposal and safe handling of contaminated products.

How Would Farm Workers and Other Employees be Protected?

Protection of people would be the primary goal for state, local and federal officials following a nuclear power plant incident. This includes the protection of farmers and their employees. This would be accomplished by monitoring the areas where work is being performed, potentially limiting access to areas that are determined to be unsafe, and providing oversight of work being performed in contaminated areas using trained radiation technicians. Radiation exposure can be limited by reducing time in contaminated areas, using material that will shield the radiation exposure, maintaining a safe distance from contamination, and using personal protection devices. These steps would depend on the levels of contamination at the locations where the work is being performed.



If My Area is Evacuated, Can I Go Back?

If your area is evacuated, state or local officials will provide information through the media about returning to your operation. If possible, leave food and water for animals. If you are allowed to return temporarily to care for animals or crops, you will be given specific instructions on routes to use and safety measures to take.

What Would Happen After the Emergency?

The emergency phase covers all actions taken from the beginning of an incident until the San Onofre Nuclear Generating Station has been brought to a stable or shutdown condition. The post emergency phase is where further radiological assessments take place and where recovery operations occur. During the post emergency phase, County, State and Federal officials would continue to sample the air, water, soil, crops and animals in potentially affected areas to determine if contamination is present. They would provide instructions on methods you could use to decontaminate animals, food and property, if necessary. Local and state officials will make decisions regarding the use and sale of contaminated food products and commodities. When it is determined that these products cannot be sold, local and state officials will provide information on disposal. You will be informed about how to submit requests for financial assistance, if appropriate.

Who's going to pay for losses due to contaminated food products, other commodities, and property?



In 1957, the U.S. Congress enacted the Price-Anderson Act as an amendment to the Atomic Energy Act of 1954. Its purpose was to encourage the commercial development of nuclear energy and to establish a framework for handling potential liability. The act requires the operators of nuclear power plants to provide financial protection against public liability caused by a nuclear incident.

In 1956, stock insurance companies created an insurance "pool," now known as American Nuclear Insurers (ANI), to respond to the needs of the nuclear industry. The pooling concept provides a mechanism to amass the large amounts of insurance capacity needed to insure the nuclear risk. ANI members include many of the largest insurance companies in the United States. Each operator of a nuclear power plant has liability coverage of $300 million dollars, plus an additional $10.5 billion in secondary financial protection. Under the act, if at least 15% of the $10.5 billion of secondary financial protection is anticipated to be used, the U.S. Federal District Court (9th District) would make decisions on who gets paid and how much would be paid.

Once a nuclear power plant incident occurs, ANI would immediately send staff to the area affected and would set up claim centers in coordination with state and local agencies.

Notes, Telephone Numbers:

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