

EMERGENCY ALERT RADIOS: A VALUABLE AID TO THE COUNTY'S EMERGENCY ALERT SYSTEM

ORIGIN

In response to concerns for citizen awareness of local area emergencies arising both outside and inside the Diablo Canyon Power Plant, the 2007-2008 Grand Jury found a little publicized technology that provides alerts over special radios for a wide range of emergency types, including emergencies at nuclear power plants. This low-cost and readily available technology should be brought to the attention of all county residents as an important addition to the sirens installed and maintained by PG&E as a licensing requirement for the Diablo Canyon Power Plant. Although owned and maintained by PG&E the operation of the sirens is under the control of the San Luis Obispo County Office of Emergency Services (OES) and would be used for any emergency OES deemed necessary. The radios, which are the subject of this report, would augment the PG&E sirens and serve geographic areas not covered by the sirens.



Emergency Alert Siren – Photo by Brandt Kehoe

METHODS

As part of this report, the Grand Jury:

- Interviewed the Emergency Services Manager. and the Emergency Coordinator III of the County Office of Emergency Services.

- Toured the County Emergency Operations Center.
 - Reviewed the 2006-2007 Grand Jury report “Diablo Canyon: San Luis Obispo’s Katrina”.
 - Reviewed the NOAA web site <http://www.weather.gov/nwr/> on All Hazards NOAA Weather Radios.
 - Reviewed commercial websites on the types and availability of All Hazards NOAA Weather Radios.
 - Reviewed Federal Communication Commission (FCC) website about the Emergency Alert System ([http://www.fcc.gov/pshs/eas/.](http://www.fcc.gov/pshs/eas/))
 - Reviewed the Diablo Canyon Power Plant emergency material found in the front of the telephone book provided by AT&T, the current local landline telephone service provider.
- This material is not included in other distributed telephone books.**

NARRATIVE

Emergency alert radio signals are provided by the National Oceanographic and Atmospheric Administration (NOAA) through the National Weather Service (NWS). The radio signals are not accessible over commonly available AM/FM radios but are received by the NOAA radios that carry both the weather information from the NWS and the emergency alerts. As described by www.weather.gov/nwr/:

“**NOAA Weather Radio All Hazards** (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

Working with the Federal Communication Commission's (FCC) Emergency Alert System, NWR is an "All Hazards" radio network, making it your single source for comprehensive weather and emergency information. In conjunction

with Federal, State, and Local Emergency Managers and other public officials, NWR also broadcasts warning and post-event information for all types of hazards including natural (such as earthquakes or avalanches), environmental (such as chemical releases or oil spills), and public safety (such as AMBER alerts or 911 Telephone outages).”

NOAA radios provide weather reports on demand and emergency alerts as appropriate. Thus, unless the user is listening to the weather reports, the unit is silent except when an alert sounds. While these weather reports and emergency alerts are not available on normal AM or FM radios, NOAA radios that do receive them are widely available in a variety of formats. NOAA radios are known by a variety of other names as well: National Weather Radios, Emergency or Public Alert Radios and All Hazard Radios. They are available as stand-alone units operating on line voltage or as portables (line voltage units have short-term backup batteries to preserve operation and settings should there be a power outage.) They are also available combined with AM/FM radios, shortwave receivers, CB radios, car radios and scanners. The cost varies from about \$20 to \$200 depending upon features included. The web site includes a list of manufacturers (<http://www.nws.noaa.gov/nwr/nwrrevr.htm#residential>).

It is recommended that buyers of NOAA radios purchase one equipped with Specific Area Message Encoding (SAME) which limits alerts to those affecting specific areas. The SAME code for San Luis Obispo County is 006079. SAME equipped radios can also be configured to respond to multiple areas such as neighboring counties. **Figure 1** shows the area coverage for the NWR broadcasts for the NOAA radios for the county of San Luis Obispo. A photo of a representative stand-alone radio is included as **Figure 2**. A list of alerts of possible relevance to the county can be found in **Table 1**.

Should the San Luis Obispo County Office of Emergency Services (OES) decide to activate the Emergency Alert System, part of the activation would include the NOAA broadcast system and its automatically activated emergency alert radios. Anyone possessing a NOAA radio would be alerted to the emergency whether sirens were audible or not. Alerts from agencies of events outside San Luis Obispo County that affect our county would also be included in such alerts.

Individuals concerned about not hearing the sirens or those who do not have sirens in their area could purchase a NOAA radio and be assured they would be alerted to any emergency should the OES activate the sirens.

FINDINGS

The National Weather Radios provide a valuable extension of the existing alert system, cover a wide variety of emergencies, and are operable throughout the county. This possibility is, however, not well known and deserves wider publication.

RECOMENDATIONS

The OES should revise its alert information included in the telephone directory and other brochures and presentations to include NOAA Weather Radios. The OES should also encourage PG&E to include information on these radios in its public information about emergencies at Diablo Canyon Power Plant.

REQUIRED RESPONSES

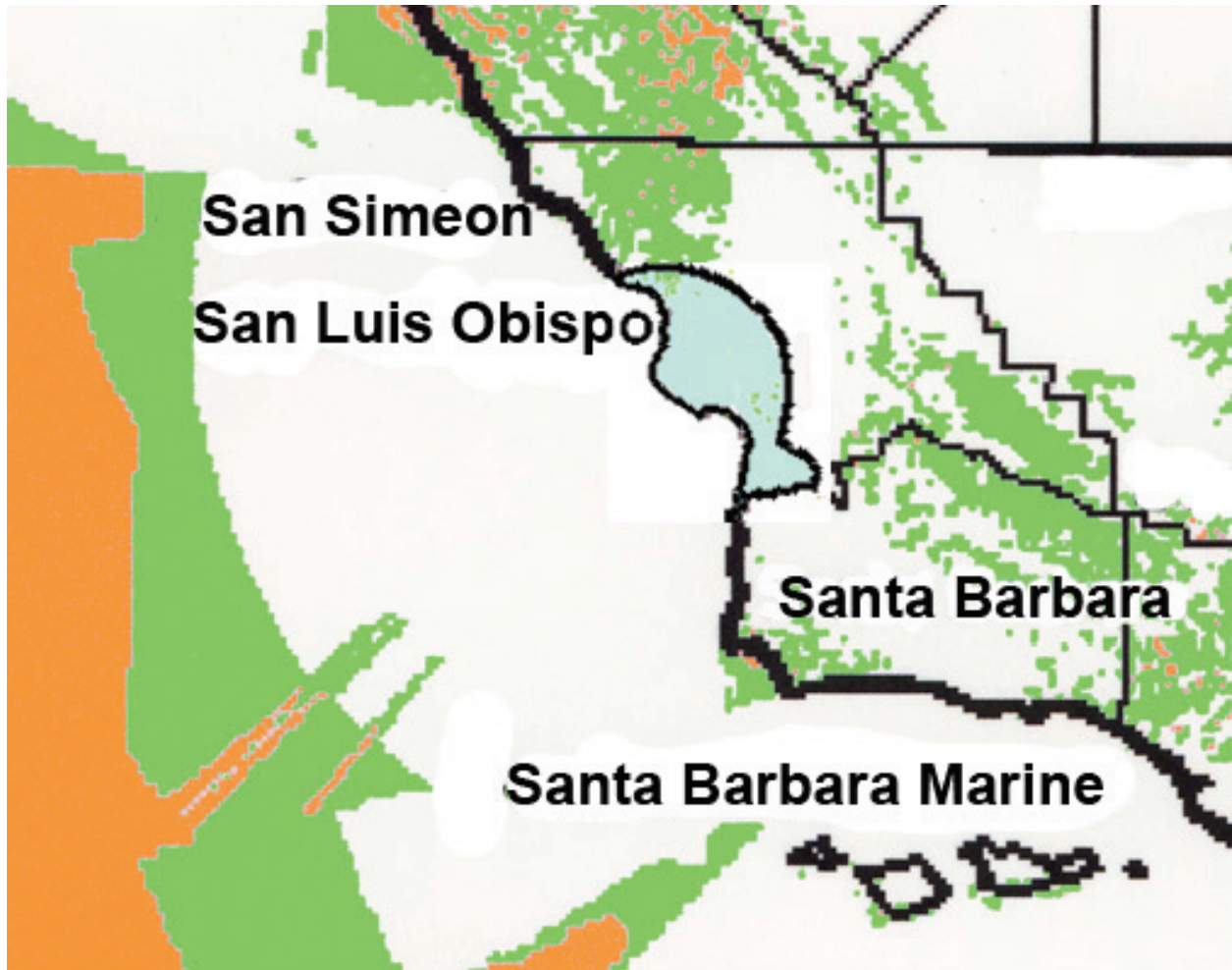
Director, Office of Emergency Services
Board of Supervisors, San Luis Obispo County

All responses shall be submitted to the Presiding Judge at the San Luis Obispo Superior Court by **November 7, 2008**. Please provide a copy to the Grand Jury as well. The mailing addresses for delivery are:

Presiding Judge	Grand Jury
Presiding Judge Martin Tangeman Superior Court of California 1035 Palm, Room 385 San Luis Obispo, CA 93408	San Luis Obispo County Grand Jury P.O. Box 4910 San Luis Obispo, CA 93403

Figure 1

This diagram shows National Weather Service signal reliability in San Luis Obispo County and the locations of the transmitters of importance to the county. The Protective Area Zone (PAZ), the area with sirens, is shown as an overlay.



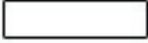



-  Reliable coverage
-  Picking up signal is possible but not reliable
-  Unlikely to receive signal
-  PAZ zone - also reliable coverage for NOAA radios

Image from National Weather Service modified by PAZ overlay

Figure 2

Photo of a representative, stand-alone, NOAA radio with SAME



Table 1

NWS alerts of possible relevance to San Luis Obispo County

- Biohazard
- Chemical hazard
- Child abduction
- Civil danger or emergency
- Contagious disease
- Coastal flood
- Dam break
- Earthquake
- Emergency action
- Evacuate immediately
- Fire
- Flood
- Flash flood
- Hazardous material
- High wind
- Law enforcement emergency
- National hazard
- System tests
- Nuclear power plant warning
- Radiological hazard
- Severe thunderstorm
- Shelter in-place warning
- Special marine warning
- 911 telephone outage
- Tornado
- Tsunami