## Earthquakes, Tsunamis, Reactors and PKS

By Tom Powers

With the 24/7 coverage of the Japanese disaster on the news this past month, I have heard the question numerous times, "Could that happen here?" A statistician might say, "It's highly unlikely." But an insurance agent would reply, "You're overdue." Let's take a look at the facts so you can decide.

Earthquakes are a common occurrence. In fact, we've had one in North Carolina already this year (in Asheville) and South Carolina has had two, but our earthquakes are generally very small because we are not located on a major fault line like Japan. That's not saying it can't happen. Charleston, South Carolina, is located on a minor fault line. It did experience a major earthquake in 1886 and usually has a couple of small ones every year. Charleston remains a high risk earthquake zone, the only one in the Carolinas. If a major quake did occur in our area, it would most likely be there.

Tsunamis—or tidal waves as they are called in the Atlantic—can be caused by an earthquake, a landslide, a volcanic

eruption or a large meteor landing in the ocean. Like earthquakes, tidal waves are rare in the Atlantic, but one could occur. A major earthquake in Charleston probably wouldn't cause a tidal wave because the quake would most likely occur on land, and even if a quake near Charleston did cause a tidal wave, the waves wouldn't radiate in our direction. The most plausible possibility of a major Atlantic tidal wave would be as a result of a major eruption in the Canary Islands, which could affect the entire east coast. But it would have to be a very large eruption, causing a major part of the island to fall into the ocean.

But, how about a nuclear reactor accident? The closest reactors to us are the two in Southport, operated by Progress Energy, and unfortunately they are similar in design to those in Japan's Fukushima plant—GE Mark 1's. The good news is that the units installed in North Carolina are of a later design and should have additional safety features.

Before running out to locate a source for iodine pills, you need to keep in

mind that the earthquake that hit Japan was one of the largest ever recorded. It demolished buildings for miles around, but the reactors remained intact and shut down as they were designed to do. When they lost all outside electrical power, they switched to their diesel generators for cooling power as they were supposed to, but then they were hit by a monstrous tsunami that took out the diesels. Chances of a catastrophe like Japan's ever happening again are extremely remote—especially around here. There are 442 power-generating nuclear reactors in the world, and 104 of them are in the United States. Many, like the two in Southport, have been operating since the 1970s. They really do have a pretty good safety record.

So if you want to prepare for a disaster, I'd suggest preparing for the hurricanes that hit us every year. We all know that they frequent our island, and fortunately for us, they usually give us a few days' warning.



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## Give Us a Break Leave No Wake

By Barbara Milhaven

Speeding boats during spring, summer and fall are not an everyday occurrence, but they are a fact. Speeders endanger the lives of recreational swimmers and kayakers, particularly young children. Even those exceeding the speed limit but not actually speeding can endanger docks, piers and shoreline.

According to Pine Knoll Shores Public Safety Chief Bill Mathias, we have a Boat Speed Ordinance that if violated can result in a fine. This ordinance, which is found in Section 58.3 - c. Speed, under General Regulations, states: "Speed Boats shall be operated in a safe manner at all times, with due regard for the safety of persons and property. No boat shall be operated at such speed as to leave a wake and, in no event, shall such speed exceed five miles per hour except when more than 200 feet from shore in the Atlantic Ocean or Bogue Sound. Boats operated by officials of any governmental agency as part of their official duties while enforcing federal, state, or local laws, ordinances, or regulations, or while carrying out rescue operations, are exempted from the speed limits established here."

Town ordinances are designed and enforced to make this a better place to live while preserving the natural beauty of our coastal area. Cooperation in complying with them is very much appreciated.

