

Follow-up on meeting over Miami-Dade County Radiological Emergency Plan
4 Aug 2011

Prepared by Philip Stoddard, Ph.D., Mayor of South Miami

Persons Present:

Philip Stoddard, Mayor of South Miami
Curtis Somerhoff, Director, M-D County Dept. Emergency Management
Niel Batista, Emergency Management Coordinator for M-D County
Victoria Mallet, Office of External Affairs, M-D Dept. Emergency Management
Xavier Suarez, M-D County Commissioner, District 7
Ela Pestano, aid to Com. Suarez
David Gelman representing Rep. Ileana Ros-Lehtinen
Melissa Leonard representing Rep. Ileana Ros-Lehtinen

Below, in black, are the concerns I raised at our meeting. Participant responses are in colored italics.

1. Projected evacuation times are invalid. “Shadow evacuation” calculations in Evacuation Time Estimate (ETE) study include no one living farther north than SW 152 St, 13-15 miles from TPN. Studies of actual evacuations indicate shadow evacuation frequency does not decline within 25 miles of a reactor. Our roads cannot handle actual likely evacuation.

Mr. Somerhoff questioned whether studies of evacuation following Three Mile Island in 1979 are still valid in predicting behavior of people today because we have so much more information about actual risks of radiation.

Mayor Stoddard stated that scientific studies of prior behavior are the best predictors of future behavior. Further, because the public now understands that areas 25-45 miles from Fukushima became uninhabitable, he would expect the shadow evacuation area to increase, not decrease from Three Mile Island.

Mr. Somerhoff does not believe gridlock will occur on Florida’s Turnpike and other major egress roads (e.g., US 1, Krome Ave.) because emergency managers can exercise highly effective options for traffic control.

Mayor Stoddard believes the artificial boundary of the existing Turkey Point shadow evacuation area produces an unrealistically small estimate of the shadow evacuation population and that actual evacuees would put far more cars on the road than estimated, leading to complete gridlock.

Mr. Somerhoff stated that the County is seeking to become the contracting agent for future ETEs to make them more reliable and accountable.

Mayor Stoddard says it can't happen too soon. The current ETE is not realistic and leaves us vulnerable to catastrophe.

2. In one hour, under average winds, radiation plume would escape 10-mile Emergency Planning Zone (EPZ) around Turkey Point. A decision to notify public following a radiological emergency is projected to take 70 minutes.

Mr. Somerhoff explained nuclear accidents do not happen all at once, and that we have time to get people out of the way of a radiation plume.

Mayor Stoddard observed that in every major radiological release from a nuclear plant, people have been exposed faster and farther than the government was aware at the time, that extensive radiation was detected only after fallout had landed, and that most people were warned after they were exposed rather than before. Further, winds wander, and radiation plumes swept over wide arcs following both Chernobyl and Fukushima accidents.

3. County has no plan to get potassium iodide (KI) to children and pregnant women before radiation exposure in a radiological emergency, as is necessary to prevent thyroid damage.

Mayor Stoddard that the World Health Organization calls for predistribution. In Miami, all the KI is to be distributed at the ERCs after an emergency is already in progress. In North Carolina, KI is mailed to people in their houses.

Mr. Somerhoff says pre-distribution options have been tried before, allowing people to pick up KI in advance at distribution points, but that public response was very limited.

Mayor Stoddard suggested distributing KI through annual checkups with family doctors and pediatricians who can make sure people receive it, and that anyone allergic to iodine is excluded.

Mr. Somerhoff commented on the difficulties getting people to take the H1N1 flu vaccine.

Mayor Stoddard observed the extreme effectiveness of pediatric vaccination programs, and pointed out that the flu vaccines are usually late, limited in quantity, and require a special appointment. Most children (the most vulnerable to radioiodines) get an annual medical checkup and that would be an excellent and reliable distribution point.

4. The County's radiological plan annex lists radiological shelter space for less than 1/3 of potential evacuees from 10-mile radius Emergency Planning Zone (EPZ) around Turkey Point.

Mr. Somerhoff noted that the County has considerable flexibility in adjusting the number of shelters to match the demand. Other shelters can be opened anywhere

in the County, and that Broward and Palm Beach Counties can provide shelters for displaced residents of Miami-Dade County. Mr. Somerhoff's department expects far fewer people than the ~204,000 residents of the EPZ would evacuate to local shelters, and that most would drive farther.

Mayor Stoddard noted that studies of prior radiological evacuations showed that most evacuees did indeed drive farther, typically 75-100 miles. He asked how many people were expected to actually use designated radiation emergency shelters.

Mr. Somerhoff did not have that number at hand.

5. The County has made no provision for protection or evacuation of people living farther than 10 miles from Turkey Point (including **South Miami**, Coral Gables, Pinecrest, Miami, Miami Beach, etc.).

Commissioner Suarez noted that this area included his entire district, and felt this matter was very serious.

Mr. Somerhoff pointed out that the 10 miles circle is stipulated in the federal guidelines. He mentioned that the NRC is looking at mandating wider evacuation zones in the future.

Mayor Stoddard noted that the current Federal evacuation guidelines are only a minimum requirement, and they do nothing to protect residents of his city. As for future changes in NRC guidelines, he noted that Congress is being heavily lobbied by the nuclear power industry to delay implementing recommendations of the NRC Fukushima Taskforce.

6. The County has only one Emergency Reception Center (ERC), which could be in fallout path and which cannot handle the full evacuation population of over 200,000 people.

Mr. Somerhoff stated that the equipment was mobile so the County could relocate the ERC to any of several alternate locations on a moment's notice.

Mayor Stoddard wanted to see the alternate locations mentioned in the text of the actual plan.

7. Processing of 200,000 evacuees at Tamiami ERC would be too slow. This concern was expressed in confidence by first responders after a practice drill.

Mayor Stoddard asked for details on the screening of evacuees.

Mr. Somerhoff stated that they could open 6 screening stations on short order, and eventually 50 stations. It takes 30 seconds on average to screen an evacuee for radiation exposure.

Mayor Stoddard observed that at full capacity, they could screen 100 people a minute, 6000 an hour. If 200,000 people showed up for screening, it would take 33 hours to get them all screened. People would not be happy standing in line for that long.

Mr. Somerhoff stated that 200,000 people would not show up. He expected fewer, but could not produce an estimate.

Mayor Stoddard asked if people entering shelters had to be certified free of radiation by screening at the Emergency Reception Center (ERC).

Mr. Somerhoff said nobody who had not been screened at the ERC and certified free of radiological contamination could enter a designated shelter.

8. County's fallback plan, in place sheltering, ignores EPA determination that masonry homes provide only 40% reduction in radiation exposure.

Commissioner Suarez was concerned about the limited protection afforded by a masonry house and said perhaps Congresswoman Ros-Lehtinen could make those figures more stringent.

Mayor Stoddard said he would produce the reference.

"Manual of Protective Action Guides and Protective Actions for Nuclear Incidents." Produced by the EPA's Office of Radiation Programs. See table C-6 on page 232. [Note: making houses tighter for energy efficiency purposes will also increase protection from fallout].

9. County emergency plan includes promise of resources from agencies unprepared to provide those resources during a radiation release, e.g., US Coast Guard.

Mr. Somerhoff said it was understood that the U.S. Coast Guard would only keep boats away from an irradiated area and would provide assistance with radio communications, but would not enter the radiological zone.

10. County has incomplete provision for radiological emergency immediately following a severe hurricane when roads may be impassible.

Mayor Stoddard noted that following Hurricane Andrew, the US military ran out of tires attempting to access South Dade across impassible roads. A loss-of-cooling accident at Turkey Point following a hurricane / storm surge event could render evacuation extremely difficult.

Mr. Somerhoff and Mr. Batista noted that people would have already evacuated for the hurricane, leaving fewer potential evacuees.

Mayor Stoddard noted that hurricane evacuations are incomplete, and many people go to local shelters, leaving a reduced but significant number still to evacuate under difficult circumstances.

11. The ETE study shows that families with pets will refuse evacuate to emergency shelters that don't accept pets (i.e., most shelters).

Commissioner Suarez commented on the non-voluntary nature of a radiological emergency evacuation. When ordered to evacuate people must not be allowed to remain behind.

Mr. Somerhoff noted that in an actual emergency, shelters will not turn away people with pets, despite what it says on the website.