

## A Dozen Issues to Raise at NRC's

### Public Meeting for Exelon's Proposed Nuclear Reactors

August 7<sup>th</sup>, 2008 6:00 – 9:30 PM,

Victoria Community Center, Victoria, Texas

#### **1. Complete and locally available license application**

The NRC accepted an incomplete application for South Texas Project units 3 & 4 in 2007.

Portions of the application, including the Design Criteria Document which included information on the plant design, were only available in the Nuclear Regulatory Commission (NRC) reading room in Maryland. If there is to be a meaningful public participation process:

- Will the NRC promise to refuse to accept an incomplete application from Exelon for their proposed plant near Victoria?
- Will the NRC promise to begin the public hearing process on the reactor license only when the public has access to all sections of the application?
- Will the NRC make available all portions of the COLA, the combined construction and operation license application, so that Texans may review it in a timely manner in their respective locales?

#### **2. ESBWR not a certified design**

The reactors Exelon wants to build have not been certified by the NRC, and the certification process should precede the license application.

- How can the NRC justify accepting and docketing a nuclear reactor license application for a reactor design that the NRC has not certified?

#### **3. Local Economy: Tax abatements mean the community will bear the costs in higher taxes and Exelon will reap the profits.**

Exelon could receive millions of dollars in tax breaks, but leave the community to bear the costs of more public infrastructure for the project.

- How high will local cities have to raise taxes in order to build more roads, expand schools, build a new hospital and expand the fire department?

There hasn't been a new reactor ordered in the US for decades. The current nuclear power plant workforce is nearing retirement, and existing power plants will need replacements to keep operating. Who would Exelon hire to build and operate the new plant? Will they have to rely on international labor who will come in and then leave the community with increased taxes for infrastructure?

#### **4. Cancer: More radiation means bigger risk**

- According to Dr. Joseph Mangano of the Radiation and Public Health Project, the cancer death rate in the three counties closest to STNP, for example, was 4.5% below the statewide rate before STNP began operating. Sixteen years later, the rate in the three counties is 7.2% higher than the state rate. While the state rate increased 3.8% in those years, the three counties' rate went up 16.55%.
- What are the projected cancer rate increases predicted from the proposed Exelon reactors?
- Will the two new reactors increase the amount of low-level radiation exposure to surrounding populations?

- The National Academy of Sciences concluded that radiation is dangerous even at low levels (BEIR VII study).
- While low-level radiation exposure is not as damaging as high-level radiation on a short-term basis, prolonged exposure to low-level radiation can be just as damaging to humans. Research has shown an increase in cancer rates around nuclear plants.

## 5. **Water: Reactors would use enormous amounts of water**

Water agreements have been made to use three times the amount of water Victoria residents have access to. This water would come from the Guadalupe River and potentially from ground water.

How many wells would be sucked dry?

- If the reactor uses its full allotment (75,000 acre ft/ year?) will there be adequate water for rice farmers, ranchers and others?
- If water levels go down, the reactors' needs would be prioritized over those of local people. How will there be enough water to drink?
- The Guadalupe River has run as low as 44 cubic feet/second. What will happen to the nuclear power plant if we have a serious drought again? How would it be cooled?
- Will local residents still have access to water including the reservoirs given proposed nuclear water allotments?
- Will there be adequate water for the new reservoir?

If global warming impacts turn out to be as serious as predicted:

- Will there be enough water for cooling with a predicted 35% decrease in river flow?
- If groundwater declines will this make our aquifer more saline?
- Closures of nuclear plants have occurred because of heat waves. Will the ambient temperature be too high in Texas to allow the plant to operate safely?
- Will Exelon's plant be within the storm surge zone given the predictable ranges of sea-level rise due to global warming?

### **Subsidence: Overuse of groundwater**

Subsidence is a shifting downward of the earth's surface. Causes of subsidence include depleted groundwater, mining, natural gas and oil extraction. The area around STP has been mined for sulfur and may collapse.

- What prevention measures will Exelon make to ensure subsidence does not occur?

## 6. **Hurricanes: Nuclear plants add to the threat**

The aftermaths of hurricanes Katrina and Rita are fresh in our minds. Will the license application and environmental impact statement include a threat assessment from a Category 4 or 5 hurricane?

- What would happen if a hurricane were to hit? What would happen if there is flooding of the reactor? What would happen if evacuation roads become flooded?
- Hurricane Carla struck Texas in 1961 as a Category 4 hurricane and was one of the most powerful storms ever to strike the United States. Rainfall amounts were heaviest from Port Lavaca up the coast to Galveston and within 50 miles inland, ranging from 10" to 16". One report out of Port Lavaca had a tide level 18.5" above normal.
- What would happen to the emergency evacuation routes, if an evacuation was ordered in the aftermath of a hurricane?
- In October 1998, according to a PBS report, Victoria, Texas, the Guadalupe River swelled from its usual 150 feet to six miles wide. Today, the river is beginning to recede. Hundreds of people in this town of 60,000 have abandoned their homes to seek higher ground. In

Victoria and elsewhere in Texas this week National Guardsmen plucked residents from their homes, rescuing them from the surging rivers.

## **7. Evacuation plans and accident scenarios**

Exelon needs to prepare the community for action in the event of an accident or disaster. Yet readiness will always be an issue.

- If there is an accident, will the community be able to evacuate?
- Rita demonstrated how quickly and completely the region can become congested.
- If there is an accident, who will distribute potassium iodide? According to NRC rules, residents near nuclear plants must receive potassium iodide tablets in case of emergency.
- In 1980 the NRC conducted a study of what would happen under a worst-case scenario accident at each nuclear plant site. While still under construction, nearby STNP estimates were:
  1. 15,200 early deaths (25 mile radius around plant)
  2. 8,770 early injuries (35 mile radius)
  3. \$112 billion (1980 dollars)

What would the number of deaths and injuries be from a meltdown of the Exelon reactors? What would the economic cost be? What lesser accidents could occur, and what would be the impacts?

## **8. Endangered Species (Other species? Trout)**

There are Kemps Ridley sea turtles and whooping cranes in the region.

- How will construction and operation of the new reactors affect wildlife habitats?
- What is the effect of low-level radiation over prolonged periods on wildlife in the area?
- What other species will be affected?

## **9. Waste: No high-level radioactive waste site has yet been permitted**

Generating nuclear energy produces tons of high and low-level radioactive waste that remains dangerous to living systems for tens of thousands of years. Radioactive and toxic waste is produced at every stage of the fuel cycle, including plant operations.

- What is the long term plan for disposal of radioactive waste? Will the license application specify that wastes will remain on site since there is nowhere to send them?
- The contractor for the Department of Energy has announced layoffs at Yucca Mountain. Ken Ritter of the Associated Press wrote: "The Energy Department is cutting operations and the chief contractor is laying off its staff at the desert site where the government plans to build a national nuclear waste repository..." Jan 8, 2008.

## **10. Need for Power: The need has not been demonstrated**

Exelon has not shown that there is a need for new energy.

- Energy efficiency and renewable energy can meet our future energy needs: Recent studies have shown that we could meet between 76-101% of Texas's growth in demand using efficiency and small-scale renewable energy.
- Are state-mandated energy efficiency and renewable energy goals factored into the energy needs assessment?

## **11. Transportation**

The new plant will need to use existing roads and to build new ones. Increased numbers of cars, trucks, and machinery will pass over them.

- How will Exelon ensure that roads are not congested?
- How will uranium be transported?

- Will Exelon transport low-level and high-level radioactive waste offsite if storage ever gets approved, and if so, how?

## **12.Environmental Justice**

The proposed plants would affect low income and minority residents.

- How much will rent go up when the influx of construction workers and their families come to Victoria County?
- Will pollution from construction and operation reach low-income housing areas? Other parts of the community?

## **13.Contamination from Uranium**

Mining and enriching uranium results in radioactive contamination of the environment and risks to public health. Exposure to radon has been shown to cause kidney failure, chronic lung disease, and tumors for the brain, bone, lung, and nasal passage.

- In the last ten years, the Texas Department of Health Services has cited several instances of radioactive waste spills by uranium mining companies, including Cogema Inc.'s 1998 spill of over 20,000 gallons of radioactive solution in Bruni, Texas.
- The Environmental Protection Agency has warned residents of Kleberg County that their groundwater currently contains unsafe levels of uranium, and strongly advises against drinking it.
- Residents of Goliad and Kleberg counties have publicly opposed the continued operations of mining companies in their communities. The aquifer below Karnes County has been contaminated by uranium mill tailings. The cost of clean up has been estimated by the Texas Department of Agriculture to be \$348 million. The companies responsible for the contamination sold their interests to shell corporations, and then went bankrupt, leaving taxpayers with the mess. No state or federal funds have been allocated to clean up the radioactive contamination.

Exelon's application to the NRC has not been submitted yet. The NRC expects to receive it in September. This meeting is a great opportunity to let the NRC know, as a member of the public, that you demand complete openness and accountability.

## **Come and Share your Opinion!**

The Nuclear Regulatory Commission (NRC) meeting is scheduled for **Thursday, Aug. 7<sup>th</sup>, from 7:00-9:30 PM, at the City of Victoria, Community Center, Dome, 2905 E North Street, in Victoria.**

NRC staff will discuss the safety and environmental review of the anticipated Exelon application for a combined license for a new nuclear unit in Victoria County, Texas. Citizens can comment on the nuclear plant application, express concerns and ask questions. There will be speaker sign up at the hearing, or you can register ahead of time by calling Mark E. Tonacci at 301-415-4045 or emailing him at [Mark.Tonacci@nrc.gov](mailto:Mark.Tonacci@nrc.gov).

The public meeting will be preceded by an informal "open house" commencing one hour prior to each session for those who wish to attend. The open house will provide members of the public with an opportunity to talk informally one-on-one with NRC staff.