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Citizen Filings Oppose Comanche Peak Reactors 3 & 4

One Halts Licensing Until NRC Approves Reactor Design, Other Raises Health, Safety and Financial Risks to the Public

Austin, Tx On April 6th, citizens submitted two separate filings to the Nuclear Regulatory Commission opposing Luminant's proposed Comanche Peak nuclear reactors. Petitioners include state representative Lon Burnam, who represents Ft. Worth (District 90), SEED Coalition, Public Citizen and the Ft. Worth based True Cost of Nukes.

"Luminant wants to build two nuclear reactors with a design that hasn't been approved by the Nuclear Regulatory Commission and which has never been built anywhere in the world," said Lon Burnam, the District 90 state representative from Ft. Worth. "Our first filing calls for halting the licensing process until the reactor design is approved. Why should people in our region be used as guinea pigs in a radioactive experiment? "

"The nuclear reactor application (COLA) is fatally flawed. Design analysis by the Nuclear Regulatory Commission won't be done for nearly 2 ½ years. By moving the license forward without having certified the design, the NRC is violating its own rules," said attorney Robert Eye. The licensing process should be halted until the NRC can honestly say that the reactor design is safe." A small-scale model of the reactor in Japan has had problematic vibrations.

AREVA started construction on a reactor in Finland before the design was finalized and approved by regulators. There have been problems with design, water-logged concrete and faulty pipes. Safety violations reportedly include the fact that qualified welding procedures have not been in place for major construction, including the building's steel framework and welding procedures for more than a year. The project is now 50% over budget and three years late, with litigation underway. The reactor was originally supposed to generate electricity starting this month.

Problems with the License Application

Contentions in a second filing laid out many defects in the Comanche Peak license application, including inadequate fire protection, no viable radioactive waste disposal plan, an inability to secure against airplane attacks, vast water consumption, failure to analyze clean, safe alternatives and an array of financial, health and safety risks.

Safety and Security Risks

The possibilities of a terrorist attack and the resulting environmental and public health consequences have not been fully explored, and the potential of such an attack cannot be discounted. The license should, but doesn't, include analysis of a variety of attack scenarios, including aircraft, breach of perimeter security and forced entry into the control room or other critical areas of the plant, and the potential for radiological releases that could result.

New regulations took effect last month that require proposed nuclear plants to plan for fires and explosions of the magnitude that would result from a jetliner crash. Comanche Peak's design does not meet the new requirements. They now are required to show that even if large areas of the plant were lost, the reactor core would remain contained and the spent fuel pool would still have enough water to prevent an uncontrolled radioactive chain reaction. These are reasonable safety requirements in a post-911 world, but the license application falls short on this front.

Evacuation plans are inadequate, assuming that 100% of the affected population would be evacuated in a radiological emergency. The dose and dollar risk assessments for severe accident analysis are understated. The license application also fails to consider impacts of a major accident or radiation release on the other three reactors that would be at the site. How would damage of the other units be prevented or contained in the event of a major fire or explosion? No such analysis has been done.

Radioactive Waste

The license application assumes that high-level radioactive waste, such as fuel rods, could be disposed of at a federal site, presumably Yucca Mountain, a plan that has no basis in reality. The Yucca Mountain site isn't likely to open. Even if it did, it would rapidly fill up with waste from existing reactors. After more than 50 years of promises from the nuclear industry, there is still no authorized national repository and no solution for high-level radioactive waste disposal. Radioactive waste is dangerous today and some of the radionuclides in the waste remain dangerous for millions of years. The license application fails to adequately address the public health consequences of accidents and releases related to off-site radioactive waste disposal, wrongly assuming there would not be risks.

Radionuclides in Squaw Creek Reservoir

The Comanche Peak license application also fails to analyze the risks of contamination from the discharge of water containing radioactive particulates and tritium that build up in the sediments of Squaw Creek Reservoir, a problem with no solution. "The reservoir is in effect an unlicensed radioactive waste disposal facility and there is no plan to do anything about it," said Robert Eye. "The license fails to consider what would happen if the dam were to give way or be breached. They rely on rainfall to dilute radioactive tritium, but fail to adequately consider the impact of drought."

Faulty Analysis

Another failure of the license application is that the radiation doses to the public as a result of consuming radioactively contaminated fish are incorrect, and the calculations were done using an obsolete model. One study found that the model underestimates doses from commercial fish by almost eight times and doses from saltwater invertebrates by over 700 times. Impacts on adults were modeled, but risk factors for children are considerably higher.

Water Availability

The license application assumes that there will be an adequate supply of fresh water, which is needed for cooling, but it fails to analyze the potential impacts of global warming on rainfall and the hydrologic cycle. Texas is already experiencing drought serious enough that Governor Perry is seeking financial assistance for every county in the state. The Comanche Peak reactors would use 30,000 gallons of water each, every minute. Roughly two-thirds of the water would evaporate.

Financial Concerns

The Decommissioning Funding Assurance described in the application is inadequate to fully decontaminate and decommission Comanche Peak Units 3 and 4. Neither the federal or state law related to funding of decommissioning will be met if Luminant proceeds as planned. Energy Future Holdings, the parent company of Luminant, is \$39 billion in debt and has poor credit ratings according to the company's own March/April 2009 power point presentation. If the license is approved and construction begins, there is a question of whether there would be adequate investor funding to complete it, and who would be left with the financial liability if the project stalls.

Clean Safe Energy Alternatives Analysis Inadequate

No certification of need for the plant is being required, but it should be. "It appears the proposed reactors are not even needed. Wind energy is booming in Texas, solar costs are coming down, the legislature is poised to promote more renewable energy, transmission lines for renewable energy have been approved and energy efficiency in Texas is increasing, reducing electric demand," said Karen Hadden, director of the Sustainable Energy and Economic Development (SEED) Coalition.

ACEEE finds that 101% of projected energy demand can be met through renewable energy and efficiency, along with the capture of waste heat from buildings, combined heat and power. New energy efficiency measures are being implemented in Texas. Dallas has just enacted strong building codes, Luminant may retire 3825 MW of gas-fired generators (more than the two proposed reactors would generate) and the economic downturn is helping spur individual efficiency and conservation efforts.

"Luminant is stuck in obsolete, costly and risky thinking about electric power," said Dr. Arjun Makhijani, president of the Institute for Energy and Environmental Research. "For instance, the National Renewable Energy Laboratory has put forth a design for baseload wind that uses only commercial technologies. Molten salt storage of solar energy is also commercial. The NRC should require Luminant to consider all reasonable alternatives as part of the Environmental Impact Statement process."

In summary, there are numerous flaws and serious inadequacies in the license for the proposed reactor. The licensing process should be halted until the reactor design is certified and these inadequacies are addressed. The next step in the licensing process will be for the NRC to respond to our petition and contentions.

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