

Nukes are Not Green!

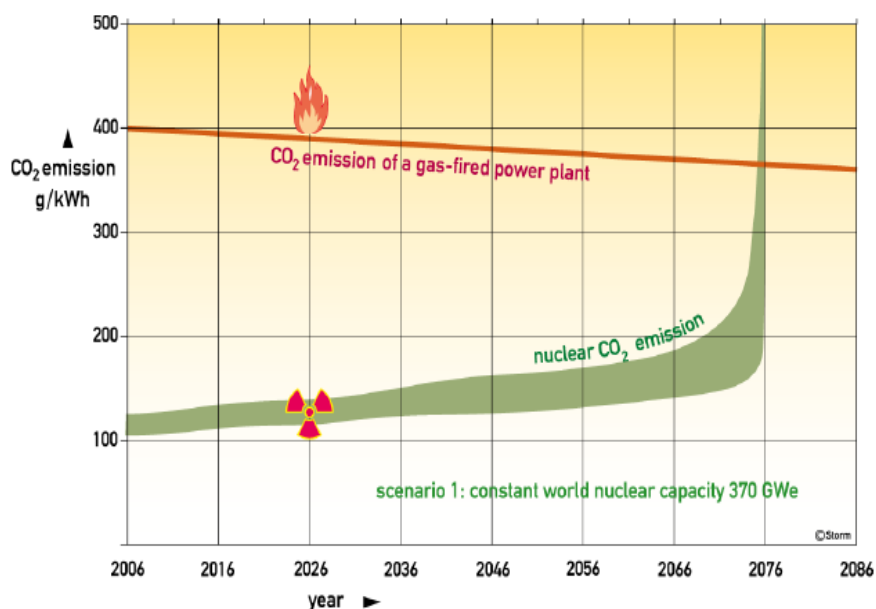
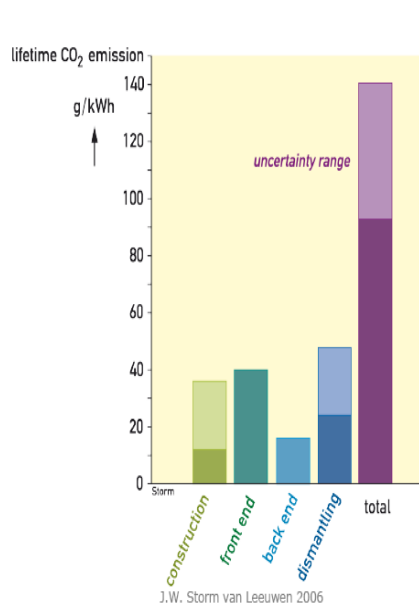
- The **Nuclear Regulatory Commission** has calculated that collective radiation doses amounting to **12 cancer deaths** can be expected for each 20-year term a reactor operates, as a result of radioactive emissions from the nuclear fuel cycle and routine reactor releases. Is it acceptable to have deaths resulting from electric generation? How many deaths are related to wind or solar operations or energy efficiency?

The NRC calculation assumes no accidents and doesn't consider radiation releases from high-level nuclear waste "disposal" activities. Nonfatal health impacts related to radiation exposure are not accounted for in this tally.

- Nuclear reactor cooling systems produce thermal energy, discharging billions of gallons of water per day at temperatures up to **25 degrees** Fahrenheit hotter than the water into which it flows.
- Each Nuclear reactor produces **30 tons** of nuclear waste each month. That would be 14,400 tons of nuclear waste produced each year at STP after the expansion is completed. **80 to 120 of these tones will be high level waste** which remains dangerous for a quarter of a million years.
- The nuclear power industry has amassed **hundreds of thousands of tons** of "low-level" radioactive waste (or, in industry and regulatory parlance, "slightly radioactive solid materials"), which has created an enormous disposition problem. Texas Proposed low level waste dump lies directly above the Ogallala Aquifer which supplies water for people in 8 states.
- Uranium Enrichment relies primarily on coal power plants for electricity and is a pollution heavy activity in and of itself. **93% of the CFC 114 gas** (which is a greenhouse gas **10,000 to 20,000** times more potent than carbon dioxide, and an Ozone eater that is otherwise illegal) produced in the United States is released by the Uranium Enrichment Plant at Paducah, Kentucky. The Paducah Plant uses **3,000 megawatts** at peak production.
- All uranium mining done in the United States is in the form of in-situ leaching, a process in which boreholes are drilled and filled with an acid or alkali, and the dissolved ore content is pumped to the surface for recovery. This **acidifies groundwater** and can release toxic heavy metals as well as **radioactive materials** into surrounding environments. The process is very CO₂ intensive and there is a constant fear of acid leachate spills.
- In other countries mining continues to expose workers to danger from **radon 222**, which is closely associated with small cell carcinoma. Waste heaps of **toxic and radioactive mine tailings result**. Open mines and uranium mill tailings in the U.S. have caused countless health problems and have cost the U.S. government billions of dollars. Areas of South Texas suffer the impacts of radioactive mill tailings.

Nuclear Power Won't Solve Global Warming

- Pursuing nuclear power threatens to worsen the risks of global warming by **diverting billions of dollars in funding needed now for energy efficiency and more renewable energy**, These real solutions are safe, clean affordable and exist now. The license application for the two reactors proposed for the South Texas Project site admits that energy efficiency doesn't match up well with nuclear power.
- Nuclear plants indirectly emit **376 - 1,300,000 million tons of CO₂** per year.
- Uranium mining is one of the most CO₂ intensive industrial operations and is becoming worse as demand increases and the availability of core grade uranium decreases.
- Mining and transport of uranium, uranium enrichment, construction of reactors, radioactive waste disposal and decommissioning are also fossil fuel based CO₂ intensive industries.
- Uranium Enrichment facilities can produce **405 metric tons annually of CFC-114**, A potent green house gas and **ozone destroyer**.
- The Paducah Enrichment Facility in Kentucky consumes the output of **two 1,000 MW coal plants**, producing **14.8 tons of CO₂** every year.



- Nuclear reactors **may take 10 years** or more to be licensed, built and brought online. This slow timeframe makes them unable to improve the climate situation. Carbon reductions are needed now.
- For nuclear power to **reduce CO₂ by 20%** a new reactor would have to come online every **2 weeks until 2050**. This won't happen. It takes **4 to 12 years to build a single reactor**.
- As global temperatures change nuclear power will become less reliable. Some reactors have already had to cut back production due water temperature increases.