Subject: : Conservation
Topic: : Hydro Fracking Trouble in Wyoming County
Re: Hydro Fracking Trouble in Wyoming County
Author: : pcray1231
Date: : 2013/4/23 11:05:21
URL:

wsender,

To be fair, the article doesn't say that coal ash is more radioactive than spent nuclear fuel rods (the small proportion of waste that is stored underwater). It says that a person living near a coal plant recieves more radiation than a person living near a nuclear plant, which is true.

Yes, on the whole coal plants do produce more radiation than nuclear plants. On a per MW basis, far more. However, even in fly ash (which is concentrated compared to coal), that radiation is spread over a much larger volume. i.e. far higher volume of slightly radioactive stuff vs. very low volume of highly radioactive stuff from nuclear.

Yeah, the water is for temperature reasons. But the temperature issue lies in the fact that the fuel rods are still "hot", and not just thermally. They are still undergoing fission, which produces the heat. Water merely provides a poor barrier to thermal neutrons. So the rods themselves are housed in nuetron attenuating steels, which slow the neutrons. And heavy water is a fairly effective shield against slower neutrons.

Again, the whole concept of having ANY waste that is hot enough that it is dangerous to handle and has to be stored underwater is purely by CHOICE. France, for instance, uses a much higher % of nuclear than we do and doesn't have this issue. They call our waste "fuel".