

glass pellets that store the waste in Yucca Mountain, most of the uranium in the Colorado ground is water-soluble. Here is the absurd-sounding conclusion: if the Yucca Mountain facility were at full capacity and all the waste leaked out of its glass containment immediately and managed to reach groundwater, the danger would still be 20 times less than that currently posed by natural uranium leaching into the Colorado River. The situation brings to mind the resident near Three Mile Island who feared the tiny leakage from the reactor but not the much greater radioactivity of natural radon gas seeping up from the ground.

I don't mean to imply that waste from Yucca Mountain is not dangerous. Nor am I suggesting that we should panic about radioactivity in the Los Angeles water supply. The Colorado River example illustrates only that when we worry about mysterious and unfamiliar dangers, we sometimes lose perspective. Every way I do the calculation, I reach the same conclusion: waste leakage from Yucca Mountain is not a great danger. Put the waste in glass pellets in a reasonably stable geologic formation, and start worrying about real threats—such as the dangers of the continued burning of fossil fuels.

A related issue is the risk of mishaps and attacks during the transportation of nuclear waste to the Yucca Mountain site. The present plans call for the waste to be carried in thick, reinforced concrete cylinders that can survive high-speed crashes without leaking. In fact, it would be very hard for a terrorist to open the containers, or to use the waste in radiological weapons. The smart terrorist is more likely to hijack a tanker truck full of gasoline, chlorine, or another common toxic material and then blow it up in a city. Recall from the chapter on terrorist nukes that al-Qaeda told José Padilla to abandon his

effort to make a dirty bomb and instead focus his efforts on natural-gas explosions in apartment buildings.

Why are we worrying about transporting nuclear waste? Ironically, we have gone to such lengths to ensure the safety of the transport that the public thinks the danger is greater than it really is. Images on evening newscasts of concrete containers being dropped from five-story buildings, smashing into the ground and bouncing undamaged, do not reassure the public. This is a consequence of the "where there's smoke there's fire" paradox of public safety. Raise the standards, increase the safety, do more research, study the problem in greater depth, and in the process you will improve safety and frighten the public. After all, would scientists work so hard if the threat weren't real? Scientists who propose rocketing the waste to the sun, or burying it in a subduction zone in the ocean, also seem to be suggesting that the problem is truly intractable, and that premise exacerbates the public fear.

See Chapter 7
for tips on
saying why it
matters.