

Your gain is my pain

A terminal cancer patient in Australia complained that he suffered through an agonizing Christmas because a Greenpeace protest shut down the Sydney nuclear reactor that makes his high-tech pain-relieving radioisotope Quadramet.

"Hard Times for Tree Huggers," in "News of the Weird," by Chuck Shepherd, March 15 *Chicago Reader*

Environmentally friendly nuclear power

Prime crocodile nesting areas are in the mangrove wetlands in protected parks at the southern tip of the Florida peninsula. A highly productive nesting area has also been developed in the 168 miles of man-made cooling canals built for the Turkey Point Nuclear Power Plant, on the southwest shore of Biscayne Bay.

"Crocodiles resurface in Florida—including on beaches," March 12 *Christian Science Monitor*

A better way to outer space

It's time to resurrect the nuclear rocket and confront the critics of nuclear energy, one of the cleanest forms of energy known. Hundreds of nuclear reactors are tooling around in the world's oceans right now, propelling submarines and aircraft carriers. Newer designs, including SAFE—the Safe, Affordable Fission Engine—are now being developed at NASA's Marshall Space Flight Center in Huntsville, Ala.

"To the Moon on Nukes," by Homer Hickam (former NASA aerospace engineer and astronaut training manager), MIT Technology Review (online), March 8

The big picture—"we"

The United States Constitution . . . speaks the language of "We the people." It prohibits Congress from endowing [Nevada Gov. Kenny] Guinn, whose political accountability and vision are intrinsically local, to trump President Bush's Yucca nuclear waste site selection, a matter of serious national urgency.

"Nuclear waste parochialism," by Bruce Fein February 26 *Washington Times*

An alternative view

There is a simple alternative to our current approach to [nuclear spent fuel] waste storage. Give up on trying to design a facility that we can pretend we could walk away from and forget—we'd never have done that anyway—and build a facility that is highly secure, but which we will carefully monitor. If in the future the monitors should ever detect a small developing problem, go in and fix it before it becomes serious and radioactive contamination has a chance to leak out and do damage to the environment—a process that would take many hundreds of years.

"Perspectives: Why Yucca Mountain is the place/Storing nuclear waste in Nevada is not a political move—it's for the nation's safety," by M. Granger Morgan (head of the Department of Engineering and Public Policy at Carnegie Mellon University), March 18

Technology for better living

Food scientists [at the Bhabha Atomic Research Centre in Trombay, India] have found a way to eat bean-filled food like curries and salads with far fewer episodes of flatulence. The Indian researchers have discovered that blasting some beans with gamma rays can help oust most of the chemicals that [cause the problem].

March 30 *New Scientist*

(The following are some excerpts of remarks made during the Nuclear Regulatory Commission's Regulatory Information Conference, held March 5-7, in Washington, D.C.—Ed.)

Energy security

I believe energy security is a key component of national security, and that the safe and reliable operation of nuclear power plants is vital to our energy security.

NRC Commissioner Nils J. Diaz

Setting the record straight

I want to devote the remainder of my remarks to security issues. Much of what I will have to say is in reaction to Paul Leventhal's presentation yesterday afternoon in this room. Mr. Leventhal [founder and president of the Nuclear Control Institute—he will retire on June 1 and become president emeritus—Ed.] has made quite a media splash since September 11. He has been willing to share his expertise on law enforcement, intelligence, and national security matters with any microphone or camera in his vicinity. Unfortunately, his expertise is quite thin and his biases are quite obvious. Anyone who disagrees with him is dismissed. Yesterday I was proud to see the Commission lumped in with the head of New York State's Office of Public Security, Mr. James Kallstrom, for Mr. Leventhal's criticism. Mr. Kallstrom, who spent most of his career in the FBI, was criticized for not sharing Mr. Leventhal's view that the Indian Point plants are "soft targets" and for making remarks to the effect that a terrorist attack on Indian Point would result in a lot of dead terrorists. I share Mr. Kallstrom's perspective and am happy to stand shoulder to shoulder by him. The Commission was criticized yesterday by Mr. Leventhal as a "captured agency: its financing, budgeting, decision-making, and Commissioner nominations all controlled by industry."

This is a heck of a conspiracy which Mr. Leventhal perceives. Mel Gibson and Julia Roberts might want to sign up for "Conspiracy Theory II" if Mr. Leventhal wants to write a screenplay. This one is a doozy because it must involve the highest officials of both political parties in this country for the past half dozen years or more. All five current Commissioners were first nominated by President Clinton. The White House personnel process in the Clinton administration for appointments to scientific agencies involved the President's Science Advisor and the Vice President's office because of Mr. Gore's deep interest in science and technology issues. Much of the Senate, which has confirmed all of us by voice vote, three of us twice, must be in on this conspiracy. Obviously the new administration must be as well. It is one heck of a conspiracy. It even extends to our intelligence, law enforcement, and national security agencies who do not share Mr. Leventhal's overwrought and alarmist views and to every governor and presumably the security advisors to those governors who have failed to act on Mr. Leventhal's hysterical recommendations.

There is an alternative theory that would describe all this data. And that is that Mr. Leventhal is flat wrong. I subscribe to this theory. Let me explain why.

Mr. Leventhal loves to call our nuclear power plants "soft targets." No responsible person would make that claim. Long before September 11, the NRC had put in place at commercial nuclear power plants the most robust security regime for any commercial facilities in this country. And we alone in the critical infrastructure tested that security regime in force-on-force exercises. Now Mr. Leventhal loves to misuse the results of these Operational Safeguards Response Evaluations (OSREs). These were not pass-fail exams. As you all know, they were meant to identify weaknesses that needed to be corrected. The attacking force is credited with almost perfect knowledge of the plant's defenses and perfect knowledge of the plant's layout and the equipment they need to attack to try to bring about core damage. They are credited with very substantial capabilities to penetrate barriers in short periods of time. It is much like giving the St. Louis Rams [Boston Patriots' head coach] Bill Belichick's defensive playbook before the Super Bowl, so that they know in advance how he plans to attack every St. Louis offensive formation and expecting the Patriots to still win the Super Bowl. In fact, under our rules Mr. Belichick would not even be able to make changes in his defensive sets once it became clear Kurt Warner had the Patriots' defensive playbook. But with all these advantages to the mock terrorists, in individual drills the attacking force reached its target sets only 15 percent of the time, in 9 of 59 drills, in 15 OSREs conducted between April 2000 and August 2001. And reaching target sets does not equate to core damage, for operators could well still recover the plant. And core damage does not equate to a radiological disaster, as Three Mile Island showed. As Chairman Meserve says, we make tough evaluations and then we insure that any weaknesses identified are promptly fixed. If our licensees were subjected to easier drills and we never found any weaknesses, Mr. Leventhal would undoubtedly be the first to criticize NRC. And in that case, his criticism would be warranted.

Nuclear power plants are hard targets by any conceivable definition. If Mr. Leventhal wants to find soft targets, modest attacks on which could result in mass casualties with little danger to a terrorist, they are unfortunately available in abundance to a terrorist planner. We as a nation will need to do what we can to mitigate those vulnerabilities in our critical infrastructure in the years ahead. We will never eliminate them. But Mr. Leventhal wants us to devote enormous additional resources to the already most hardened element of our critical infrastructure. And he would do it in nonsensical ways.

Since September 11, Mr. Leventhal has been calling for the deployment of "anti-aircraft guns" at commercial nuclear reactors. In mid-October I saw Mr. Leventhal on the margins of a Commission meeting and told him these guns don't exist in the United

States Army. The last guns the Army or the Army National Guard deployed were the M-42 Dusters, which were still in the New Mexico National Guard when I first went to work for Sen. [Jeff] Bingaman [D., N.M.] in the early 1980s, but have long since been retired. The Sergeant York Division Air Defense (DIVAD) gun was cancelled in the mid-1980s and the Army now uses an array of missile systems from shoulder-fired Stingers to long-range Patriots for air defense. I told him that he had essentially been demanding that a corporal with a Stinger and a telephone line to the White House be deployed at each of the 63 commercial nuclear power plant sites. The corporal would presumably have orders to take down any commercial airliner whose trajectory the corporal didn't like, if in those few seconds he had to react he could get permission to fire. Pretty amazing stuff. This was of course all news to our military expert, Mr. Leventhal, although I have noticed that he now calls for "radar-directed anti-aircraft batteries" when he speaks. And Raytheon, in typical defense contractor fashion, has pointed out that they could adapt the Navy's terminal ship defense gun, the Phalanx, for air defense of nuclear facilities. If Mr. Leventhal had ever seen a Phalanx fired, he would have severe doubts about the wisdom of his expert military advice.

In a letter which Chairman Meserve sent Monday to Congressman [Ed] Markey [D., Mass.], we stated the following: "The NRC sees no need to deploy anti-aircraft weaponry at any commercial nuclear facilities in the United States. After consultation with the Department of Defense, the Office of Homeland Security and the Federal Aviation Administration, the Commission believes that there would be enormous command and control problems and a large potential for unintended consequences and collateral damage if such weaponry were deployed. The Commission believes that the proper way to deal with the potential hijacking of large commercial aircraft by suicidal terrorists is through the measures on airline security now well underway."

Mr. Leventhal also advocates the deployment (presumably round the clock) of "30 to 40 specially trained infantry troops" at each site. Now if I take 35 and multiply by 63 sites (he may have more in mind) and then multiply by 5 to insure 24-7 coverage, I get 11 000 troops. Throw in a command, support, logistics and training infrastructure and we get pretty close to an Army division. Let's call it Leventhal's division. Now before we deploy this force, we would have a few minor technical issues to work out, such as the Posse Comitatus statute and the complete and total opposition of the Pentagon (I don't think I'd need to ask). It's not going to happen, although I would certainly not discourage Mr. Leventhal from working it into his screenplay for "Conspiracy Theory II."

I could go on. But my bottom line is that I am a pretty conventional guy, and I would prefer my military advice come from the Pentagon, my law enforcement advice come from the FBI and the Justice Department, and my intelligence advice come from the intelligence community. I will continue to give the expert advice of Mr. Leventhal in all these areas the due consideration it deserves.

The Commission has much to do in the months ahead on security matters. It is the single issue which has most dominated our time since September 11. We have a firm foundation on which to build and we will continue to insure that these facilities are the best defended and most physically hardened facilities in our critical infrastructure. We will do so responsibly, in full consultation with the Office of Homeland Security, the Justice Department, the Pentagon, the intelligence community and others. We hope that the Congress will pass the legislation which we have been requesting for many years that we believe would bolster the current security regime. The NRC is not an independent actor on homeland security matters. We need to be part of the integrated national effort which the President is seeking to put in place with the help of the Congress. A year from now I believe that we can have much of our enhanced security regime in place. I look forward to discussing these issues with you then.

NRC Commissioner Edward McGaffigan, Jr. ■