

In Fukushima's Wake

How the Greens Learned to Love Nuclear Power

IN MID-MARCH AMERICANS read the increasingly panic-stricken reports of meltdown at the Fukushima Daiichi nuclear-power plant in Japan and asked: 'Can it happen here?' They already know the answer. As the late great environmentalist, David Brower, used to put it, 'nuclear plants are incredibly complex technological devices for locating earthquake faults'. Along much of America's West Coast runs the Ring of Fire, which stretches all around the Pacific plate from Australia, north past Japan, to Russia, Alaska, and down the coast to Chile. Some 90 per cent of the world's earthquakes happen around the Ring.

Apparently acting predictively on Brower's piece of sarcastic wisdom, the US has deployed four nuclear plants near the Ring of Fire faultlines, including two active ones in my home state of California. In Eureka, forty miles up the road from where I write, there was a boiling-water reactor that was closed in 1976 following an earthquake from a 'previously unknown fault' just off the coast. In its place, there are now spent nuclear fuel rods—except one they now cannot find—in ponds, right on the shoreline; nicely situated for a tsunami, such as the one that disabled the relief diesel generators that were designed to pump emergency coolant in the Fukushima plant. Three plates meet at Triple Junction off Cape Mendocino, a few miles north-west of here. We had a 7.1 earthquake in 1992. Moral number one in the nuclear business: eyes wide shut at all times; deny the predictable.

Further south, halfway between San Francisco and Los Angeles, is the Diablo Canyon nuclear plant. It was planned in 1968 when no one knew about the Hosgri fault, part of the Ring of Fire, a few miles from the coast. Further enquiry established that there had been a 7.1 earthquake forty years earlier, offshore from the plant, which was duly completed in 1973. The power company, Pacific Gas & Electric, said it would beef up defences. In their haste, the site managers reversed the new blueprints for earthquake-proofing the two reactors, so the retro-fit was not a total success. Moral number two in the nuclear business, as in any other human enterprise: somewhere along the line people always mess up. San Diablo is supposedly built and retro-fitted to survive a 7.3 quake intact. In 1906, San Francisco was destroyed by a 7.7 quake, which ripped the San Andreas fault for 300 miles, north and south of the city. Back to the first moral, 'deny

the predictable': Diablo Canyon authorities recently learnt of yet another fault and are now worried about 'ground liquefaction' in the event of a big quake. In 2008 there was an attack by a smack of jellyfish (yes, the collective noun is correct), which blocked the cold-water intake; the plant was shut down for a couple of days. At the last count there were four identified faultlines offshore from San Diablo.

Another 150 miles south lies the San Onofre plant, right on the shoreline, with a 2,000-strong labour force. It has been cited as 'the scariest workplace in America'. I have swum in its shadow, in waters highly esteemed by anglers because fish gather there to enjoy the elevated temperatures; some also claim the fish there get bigger, faster. There are storage ponds for spent fuel in a decommissioned unit, a spherical containment of concrete and steel, the smallest wall being an adamantine six feet thick; just about the same as the ruptured containment at one of the collapsing Fukushima units. Further illustration of moral number two, 'messaging up', is to be found in one of San Onofre's two active units: the mighty engineering and construction firm Bechtel installed a 420-ton nuclear-reactor vessel here backwards. The nearest faultline is the Cristianitos, deemed inactive; see moral number one. The power company says San Onofre is built to withstand a 7.0 quake. There is a 25-foot sea wall, half the height of the walls that crumbled like sand along Japan's north-east coast on March 11, as the tsunami from the 9.0 Tōhoku earthquake rolled in. San Onofre is seawater-cooled. Environmentalists do not care for that, so they plan to build two cooling towers the other side of Interstate 5, California's main north-south road; immune to jelly-fish attack, but open to other methods of assault. The Uniform California Earthquake Rupture Forecast figures a 67 per cent probability of an earthquake 6.7 or higher for Los Angeles, 63 per cent for San Francisco. Up where I live, in the Cascadia subduction zone—where one bit of a plate pushes under another, as happens off north-east Japan—we have a 10 per cent possibility of an 8 or 9 force quake; a Big One is a near certainty fairly soon.

The United States produces more nuclear energy than any other nation. It has 104 nuclear plants, many of them old, prone to endless leaks and kindred malfunctions; all of them dangerous. Twenty-four of them are the same design—by General Electric—as the Fukushima reactors. Take the Shearon Harris power station in North Carolina, also a repository for highly radioactive spent fuel rods from two other nuclear plants. It would not even require a quake or tsunami, only a moderately ingenious terrorist to breach Shearon Harris's puny defences and sabotage the cooling systems. A study by the Brookhaven Labs estimates that a pool fire there could cause 140,000 cancers, and contaminate thousands of square miles of land.

The reactions to Fukushima from the nuclear industry's shells have been predictable—if still scarcely believable—sallies into cognitive dissonance. Thus Paddy Reagan, professor of Nuclear Physics at the University

of Surrey: 'We had a doomsday earthquake in a country with 55 nuclear power stations and they all shut down perfectly, although three have had problems since. This was a huge earthquake, and as a test of the resilience and robustness of nuclear plants it seems they have withstood the effects very well.'

Also jumping on the bandwagon are prominent greens like George Monbiot, who has seized the opportunity of one of the worst disasters in the 'peacetime' history of nuclear power to announce his endorsement of atomic energy in the *Guardian*:

You will not be surprised to hear that the events in Japan have changed my view of nuclear power. You will be surprised to hear how they have changed it. As a result of the disaster at Fukushima, I am no longer nuclear-neutral. I now support the technology. A crappy old plant with inadequate safety features was hit by a monster earthquake and a vast tsunami. The electricity supply failed, knocking out the cooling system. The reactors began to explode and melt down. The disaster exposed a familiar legacy of poor design and corner-cutting. Yet, as far as we know, no one has yet received a lethal dose of radiation.¹

Does Monbiot live on Fantasy Island? 'Sound as the roots of the anti-nuclear movement are, we cannot allow historical sentiment to shield us from the bigger picture', he writes. 'Even when nuclear power plants go horribly wrong, they do less damage to the planet than coal-burning stations . . . The Chernobyl meltdown was hideous and traumatic. The official death toll so far appears to be 43–28 workers in the initial few months then a further 15 civilians by 2005.'²

The 1986 explosion in the fourth reactor at the Chernobyl power station in the Ukraine does indeed remain the benchmark catastrophe amid peacetime nuclear disasters. Denial that Chernobyl actually killed—and is killing—hundreds of thousands of people is crucial to the efforts of the nuclear lobby. Amid the Fukushima crises, Fergus Walsh, the BBC's medical correspondent, comforted his audience with the absurdity that by 2006, Chernobyl had prompted only sixty deaths from cancer; the same drivel has been repeated many times over since the Fukushima catastrophe, buttressed by a shameful report overseen by the UN's nuclear lobby.³ In 2009 the New York Academy of Sciences published *Chernobyl: Consequences of the Catastrophe for People and the Environment*, a 327-page volume by scientists Alexey Yablokov, Vassily Nesterenko and Alexey Nesterenko, the definitive study to date with comprehensive health statistics. In the summary of his chapter 'Mortality After the Chernobyl Catastrophe', Yablokov demonstrates

¹ George Monbiot, 'Why Fukushima made me stop worrying and love nuclear power', *Guardian*, 21 March 2011.

² Monbiot, 'Japan nuclear crisis should not carry weight in atomic energy debate', *Guardian*, 16 March 2011.

³ 'Chernobyl's Legacy: Health, Environmental and Socio-economic Impacts', International Atomic Energy Agency, Vienna 2006.

that 4 per cent of all deaths in the contaminated territories of Ukraine and Russia from 1990 to 2004 were caused by the Chernobyl catastrophe:

Since 1990, mortality among the clean-up teams has exceeded the mortality rate in corresponding population groups. From 112,000 to 125,000 liquidators [i.e. members of cleanup crews] died before 2005—that is, some 15 per cent of the 830,000 members of the Chernobyl cleanup teams. The calculations suggest that the Chernobyl catastrophe has already killed several hundred thousand human beings in a population of several hundred million that was unfortunate enough to live in territories affected by the fallout.

Set Fukushima next to Chernobyl and its ongoing lethal aftermath; think of southern California or North Carolina. Nuclear expert Robert Alvarez, advisor to Clinton, wrote in mid-March that a single spent fuel-rod pool—as in Fukushima number 4 or Shearon Harris—holds more caesium-137 than was deposited by all atmospheric nuclear-weapons tests in the northern hemisphere combined; an explosion in that pool could blast ‘perhaps three to nine times as much of these materials into the air as was released by the Chernobyl reactor disaster’. Pro-nuclear greens like Monbiot prattle on about ‘better safeguards’. Can they not get it into their heads that nuclear power’s entire history has been the methodical breaching of supposedly reliable safeguards? There are 40-foot sea walls around a lot of Japan’s coastline. The recent tsunami went through them like a wavelet through a child’s sandcastle.

Monbiot writes as though the nuclear-industrial-academic complex—one of the most powerful lobbies in the world, in continuous operation for seventy years—did not exist. Yet its real-world effects are plain enough. President Obama, for example, took plenty of nuclear-industry money, specifically from the Exelon Corporation, for his presidential campaign. In his State of the Union address last January Obama reaffirmed his commitment to ‘clean, safe’ nuclear power, as insane a statement as pledging commitment to a nice, clean form of syphilis. Post-Japanese earthquake, Obama’s press spokesman confirmed that nuclear energy ‘remains a part of the President’s overall energy plan’. Even as Fukushima Daiichi threatened meltdown on March 16, Obama found time to record a TV interview for a news programme in southwestern New Mexico on his 2010 proposal for nuclear-warhead development. The centrepiece of this plan is funding for a sprawling \$6bn factory to produce explosive triggers for thermo-nuclear weapons at the Los Alamos nuclear compound, 50 miles from Santa Fe. Why choose the moment of Fukushima’s collapse to address New Mexico? As the TV interviewer made clear, it is home to powerful potential donors of campaign funds: Lockheed Martin (which manages the Sandia National Laboratory, Bechtel, Babcock & Wilcox and the URS Corporation (which, along with the University of California, collectively administer Los Alamos)).⁴

⁴ See Will Parrish, ‘How Obama Flacked for Plutonium as Fukushima Burned’, *CounterPunch*, 1 March 2011.

In Germany and in France there have been huge turnouts against atomic energy in the wake of Fukushima. In the US only a handful of Greens have spoken out. Why have we not seen furious demonstrations outside every one of America's 104 nuclear plants? One reason: major environmental organizations long ago made a devil's pact with the nuclear industry, which since the early 1970s has worked to frame carbon dioxide as the real environmental problem and nuclear power as its only solution. Fixated by speculative and increasingly discredited models of anthropogenic global warming, mainstream greens took the nuclear option. We are talking here about the Natural Resources Defense Council, the World Wildlife Fund, the Sierra Club—which forced out David Brower when he opposed Diablo Canyon—and people like Obama's White House advisor John Holdren, along with supposedly progressive outfits like the Bulletin of Atomic Scientists and the Union of Concerned Scientists. There has been no upsurge against nuclear power here because American progressives still mostly cram in under the toxic umbrella of Obama's energy plan. When the House of Representatives (though not the US Senate) voted for a climate bill in 2009, a 'clean energy bank' to provide financial backing for new energy production, including nuclear, was part of the bargain.

In political terms, nuclear power has always been a war on the people, starting with the Japanese in Hiroshima and Nagasaki, going on to the Marshall Islanders, ranchers and kindred inhabitants of test sites across the West, Native Americans, poor Latinos and African Americans (the usual involuntary neighbours of waste dumps), people in the path of 'accidents' or deliberate secret experiments, and most recently Fukushima. Not the executives of the Tokyo Electric Power Company. They are in Tokyo or heading further south. It is 'worker heroes'—who know perfectly well they are doomed. It is the Board of TEPCO that should be sent to the front lines.

Look at the false predictions, the blunders. Remember the elemental truth that Nature bats last, and that folly and greed are ineluctable parts of the human condition. Why try to pretend that we live in a world where there are no force 8–9 earthquakes, tsunamis, dud machinery, forgetful workers, corner-cutting plant owners, immensely powerful corporations, permissive regulatory agencies, politicians and presidents trolling for campaign dollars? Is that the shoal on which the progressive movement in America is beached? This shameful pact between the nuclear industry and many big greens has got to end.