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HOW CUBA'S NUCLEAR PLANTS THREATEN AMERICA

Americans in Florida soon could face the threat of sickness or death, and unborn children could face birth defects, due to radiation poisoning. The source of this threat? Cuban dictator Fidel Castro has been building two Soviet-designed VVER-440 nuclear reactors in Juragua, near Cienfuegos, just 250 miles from Miami. After many delays, these reactors now are due to go on line in 1995 and 1997, respectively. Yet there are indications that the plants suffer from numerous defects. The Chernobyl nuclear accident in 1986, which killed thousands of Ukrainians and Russians, raises concerns about any Soviet-designed facility. Construction problems with the Cuban reactors heighten these fears.

In democratic countries, a nuclear power plant can be built only after public hearings, and with regulations to assure that public health and safety are not endangered. In totalitarian Cuba, no such steps are taken, and so the chances of a defect in the reactors is increased. A nuclear accident at the Cienfuegos plants, moreover, would harm not only Cubans, but Americans as well. With serious questions about the safety of these plants, the Bush Administration should take urgent action to guarantee that there is no threat to Americans. In particular, in conjunction with its allies, the Administration should demand a full, open inspection of the plants. Further, American environmental groups, most of which have remained silent about the Cuban nuclear reactors, should strongly back an Administration demand for inspection.

Questionable Design, Slipshod Construction. At the recent United Nations-sponsored "Earth Summit" in Rio de Janeiro, Castro received thunderous applause. This is curious, because he has shown little regard for the environment of Cuba or the safety of its citizens. The Cienfuegos reactors, for instance, would not meet minimum U.S. standards, even if they were constructed exactly according to design. But to make matters worse, the construction so far has been slipshod at best. Vladimir Cervera, a defector from Cuba and a senior engineer responsible for oversight of quality control at these facilities, has revealed that X-ray analysis showed pipes for the cooling system—for the most critical area of the reactor—were weakened by air pockets, bad soldering, and heat damage. In all, 15 percent of the pipes in one safety audit, which were certified for quality by other Cuban inspectors, were flawed. In contrast, if a single weld in an American reactor has even a suspected defect, the Nuclear Regulatory Commission will halt all operations until the weld is proven safe.

Another defector, who was a senior nuclear engineer at the Cienfuegos site, charges that the support structure of the plants contains numerous faulty seals and structural defects. This engineer has stated that steam supply system equipment for the reactors was left outdoors uncovered for over eighteen months. Thus instead of being stored in a climate-controlled area, it was exposed to highly corrosive tropical salt air, risking damage to the critical equipment. If any of this equipment fails in a reactor, the probability of a nuclear meltdown increases dramatically.

Furthermore, two-thirds of the Soviet advisors helping to construct the reactors were called back home when the Soviet Union dissolved. These were the most experienced and qualified advisors, and they were replaced by poorly trained Cubans. Further eroding the level of experience on the site, the training time for Cuban technicians in the former Soviet Union, always short, recently has been scaled back. None of these technicians would be certified to operate a U.S. nuclear facility. Yet they are responsible for constructing and eventually operating what are likely to be critically flawed nuclear plants near American soil.

Worrying Reports. There is little chance that the full range of construction and design flaws will ever be made public by Cuba. There is no public documentation to show whether the Cienfuegos plants are being constructed properly. Indeed, worrying reports out of Cuba suggest that equipment designed for one specific function is being used for other purposes where the proper equipment is in short supply, thus increasing the probability of failure. This would never be tolerated in the U.S. In fact, one American nuclear facility, the Zimmer nuclear power plant in Cincinnati, Ohio, which cost \$3 billion to construct, was not allowed to operate merely because some documentation for one stage of the construction process was missing. Without such information to show that every aspect of a plant is safe, America's Nuclear Regulatory Commission properly refuses to jeopardize the lives of Americans.

Also disturbing is the fact that the German government recently closed all four of the VVER-440 design plants, the same design used in the Cienfuegos plants, located in former East Germany, because of construction and possible design problems.

U.S. environmental organizations have been curiously unperturbed by the Cuban plants, even though they rail against any proposed nuclear plant in America. They seem prepared to attack the U.S. nuclear industry, which has very strict standards, while defending Cuba's construction of nuclear reactors. For example, William Arkin of Greenpeace stated that "I just didn't find anything that gave me any cause for concern" at the Cienfuegos plants.

Demanding a Halt. As the 1986 Chernobyl disaster showed, contamination from a nuclear disaster can travel hundreds of miles. With Americans at risk in the event of an accident at the Cuban plants, the Bush Administration should demand an immediate halt to construction of the Cienfuegos reactors. The White House also should seek assurances from all industrialized nations that they will deny Cuba the technology needed to finish construction of these plants. Further, Cuba still is receiving funds from Russia for plant construction; Moscow and Havana already have spent some \$2 billion on the facilities. Thus the United States should call on Russian President Boris Yeltsin to halt all financial assistance to Cuba until the Cuban government agrees to international inspection and supervision of the plants' construction.

If the Cienfuegos nuclear facilities are completed, Americans as well as Cubans will face the threat of sickness or death from an unacceptably high risk of a nuclear accident. If the declarations of concern for the environment voiced at the Rio summit are not to be shown as hollow rhetoric, responsible environmental groups and democratic governments around the world should join to remove this threat.

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