

# Could Chernobyl happen in the U.S.?

*Scientists misquoted by the New York Times are furious at the anti-nuclear campaign in the press, reports Marjorie Mazel Hecht.*

Within days of the publication of *EIR*'s May 16 cover story, "The Soviet Disaster—Accident or War Push," which featured interviews with U.S. nuclear experts on how a Chernobyl disaster could not happen in a U.S. nuclear plant, the *New York Times* fraudulently used the words of the same experts to make the opposite case. Stuart Diamond, a *New York Times* reporter who has been an anti-nuclear activist since the 1970s, alleges in a front-page May 19 article that "new" information about Soviet plant designs was discovered, showing that the Chernobyl plant had safety systems and a containment structure like U.S. plants. The headline on Diamond's article was "Chernobyl Design Found to Include New Safety Plans: U.S. Experts Say Construction Is Similar in Some Ways to Plants in America."

The "experts" Diamond quoted by name, at least those that this reporter spoke to personally, are furious that Diamond twisted their words to convey his own meaning, and three of them have signed a letter to the editor of the *New York Times* in protest. "We would like to make it clear that we are not among the experts who have changed our minds about the structure of the Chernobyl reactor," said Dr. Richard Wilson, professor of physics at Harvard University and chairman of a Nuclear Regulatory Commission-sponsored study on nuclear accidents. "We have had accurate information all the time and have been attempting to square it with the public and the press. The Chernobyl reactor has no containment in the sense that we and other safety analysts in the United States use the word."

Why would Diamond write such a lying article? Wilson, whose interview appears in the May 16 *EIR* and who was also quoted by Diamond, put it this way: "Some Russians want to attack the United States economically. It would be an irony if unreasonable fear caused us to cripple our nuclear electric capability as a result of this Russian accident, which has done us no harm and which would not occur here."

As for Diamond, Wilson said, "He is a KGB agent, quite clearly."

In fact, the most important difference between the Chernobyl-type reactor and the light-water reactors used in the

rest of the world is that *the Chernobyl reactor has no overall containment structure*. This fact was known right after the accident, and it is still a fact, despite Diamond's attempt to convince his readers that "experts" found a containment structure after they "translated from Russian" more of the technical specifications.

Although the Soviets "Westernized" their safety procedures in the late 1970s, U.S. nuclear experts familiar with the Soviet nuclear program feel that the Soviets are willing to take more risks than the United States. *EIR*'s May 16 article cited Gordon Hurlbert, former president of Westinghouse Power Systems, who had visited Soviet nuclear installations in July 1983, and who described a three-level safety system at the Chernobyl plant. That the plant had this three-level Western-style safety system was a fact known at the time of the accident and not any "new" knowledge as alleged by Stuart Diamond. However, the system was not up to U.S. standards and could not be licensed here.

Hurlbert commented again in an interview May 20, that the Chernobyl plant was not designed, as American plants are, to withstand an explosion, just a steam break, and that it had no containment. The fabled "containment building" that Diamond describes, is actually just a structure built around the steam collectors and headers, not around the entire reactor. (This is like putting the hood of your car over the radiator part only.)

The Chernobyl reactor was an archaic design, a graphite-moderated reactor used both for power production and weapons plutonium production and rejected in the 1950s by other nuclear nations as unsuitable for civilian power production. The Soviets went with this design in the early 1970s because it was cheaper and easier for them than mass producing the more technologically sophisticated light water reactors used in the West. In particular, their scaled-up graphite reactor avoided the problem of producing large pressure vessels. The Soviets put their first two 1,000-megawatt graphite reactors at a site near Leningrad in 1973 and 1975, and by 1982, they built eight more, which produced at the time 64.5% of all electric power produced by nuclear plants in the Soviet Union.

Today, there are 17 graphite reactors, known as RBMK-1000, and the Soviets have plans for a 1,500-megawatt version.

From a safety standpoint, the Chernobyl reactor is a "nightmarish problem," according to Robert Bernaro, director of boiling water reactor licensing at the Nuclear Regulatory Commission. The engineering difficulties are inherent in the use of the graphite as a moderator, among other things. U.S. reactors have what is called a negative coefficient, which means that when the coolant temperature goes up, the reactor shuts down. In the graphite reactor, if the coolant temperature goes up, the reactivity goes up, which requires the Soviets to have a variety of special emergency measures to ensure that the graphite doesn't ignite.

Bernaro, who was also quoted by Diamond, commented on the question of safety: "I'm unwilling to hinge the acceptability or unacceptability of U.S. reactors on what the Russians do or do not do. If we can learn something from what the Russians have done or have not done, fine. . . . But in the meanwhile, I think that our primary attention ought to be on our own reactors."

That the New York Times's Diamond crafted his article solely to make the anti-nuclear case is amply demonstrated by the accompanying full-page ad for Ralph Nader's "Public Citizen" group in the May 19 *New York Times*. The ad, signed by Robert Pollard and Daniel Ford of the Union of Concerned Scientists, is a fund-raising piece with the message that the Russians and Americans are the same when it comes to "covering up nuclear dangers." Using Diamond's line, the ad warns: "The Chernobyl nuclear plant, contrary to earlier reports, did have a containment building. Indeed, the design used by the Russians bears a striking resemblance to the long-suspect design used by General Electric." The ad includes a map of locations of the 39 GE plants in question. "Check the map to see how close you live to a GE nuclear plant," the ad warns ominously.

To all but the most credulous, the ad is a cruel joke. In the first place, Pollard and Ford have been thoroughly discredited in the scientific community because of their history of lying about nuclear power. Interestingly, Bernaro noted that although he invited the Union of Concerned Scientists to attend task force meetings discussing core melt accidents,

## General Electric replies to the New York Times

*The following is excerpted from a statement issued by General Electric on May 20.*

The ad sponsored by Public Citizen in yesterday's *New York Times* is an effort by that antinuclear organization to raise funds by rehashing and exploiting items which were raised and then resolved eight years ago. The ad tried to make a connection between 15-year-old memos which were reviewed by Congress in 1978 and the Chernobyl accident through an invalid comparison between the GE and the Chernobyl containment design. . . .

The first issue of containment integrity was raised as a public concern in 1978 when internal Nuclear Regulatory Commission memos obtained under the Freedom of Information Act appeared to question the capability of this type of design. A great deal of public attention was raised, including public hearings before a House subcommittee where the Nuclear Regulatory Commission and nuclear industry spokesmen were called upon to address the challenges being raised by public interest groups. . . .

The original internal NRC memos were authored in 1971 and 1972. Since that time the integrity of the three styles or configurations of U.S. pressure suppression sys-

tems have indeed been extensively reviewed and approved through the normal regulatory process. . . .

In support of this review, a great deal of pressure suppression testing, including full scale segment tests, was performed for each configuration. . . . The structure designed to withstand one of the postulated events did exactly what it was supposed to do. In fact, integrity of the containment remained intact throughout a number of tests. Thus, GE believes the issue of U.S. NRC regulatory acceptance of pressure suppression type reactor containment designs is closed.

**Lack of Similarity Between GE and Chernobyl Designs** The second issue deals with the comparison between GE and the Chernobyl #4 reactors. . . . GE reactor containments are similar to Chernobyl only in that both have large pools to quench steam released from process pipe breaks. The GE reactor and all important piping are inside the strong containment structure, whereas the Chernobyl core and part of its piping appears to be outside the containment boundary in an industrial-type building. . . .

In the United States, a primary containment structure completely surrounds the reactor including both the inlet and outlet piping. Thus, in a GE pressure suppression type containment, all coolant lost in an accident within this structure is vented to and condensed in the suppression pool. In the Russian design, the reactor, its outlet piping and the steam separators are located outside the containment boundary. . . . Thus, there is no means of containment or pressure suppression for substantial steam release from the reactor core or outlet piping. . . .

“their participation was shallow indeed”—they rarely showed up. They have a “vested interest” in shutting down U.S. plants, not in safety studies.

The Public Citizen ad raises allegedly “secret” safety issues about 39 General Electric plants that were publicly aired in Congress and put to rest in 1978. Nevertheless, the Public Citizen group uses this to demand that the Nuclear Regulatory Commission halt construction and licensing of 29 commercial power plants now being built, saying that they had the potential for catastrophes like the one at Chernobyl.

Public Citizen’s “Big Lie” number-one is, of course, to state directly what Stuart Diamond only implied, that the Chernobyl plant had a containment building. Second, it broadcasts a totally fabricated scare story about a “confidential 1971 memo” by nuclear safety adviser Dr. Stephen Hanauer. The ad says that Hanauer’s secret memo advises the government not to let GE build this type of plant because the “pressure suppression containment system” was unsafe. Public Citizen sounds the alarm that the government, nuclear regulatory officials, and GE are thus conspiratorily involved in a “30-year cover-up of nuclear safety dangers.”

Public Citizen neglects to mention that the so-called secret safety issues involved were exhaustively and publicly discussed and resolved by Congress and the Nuclear Regulatory Commission when the very same memos were surfaced by the anti-nukes in 1978. Public Citizen also neglects to let readers know that the same Dr. Hanauer stated in a letter to the Nuclear Regulatory Commission on June 20, 1978: “My current opinion is that designs including pressure suppression containments can be licensed, because we have adequate assurance of their safety. This was also my opinion in 1972.”

A spokesman for the Nuclear Regulatory Commission commented: “The technical issues were specifically discussed in a report called ‘A Technical Update on Pressure Suppression Type Containment in U.S. Boiling Water Reactor Plants,’ which was put out in July 1978 to address that subject to members of Congress and the public. That report concluded that the designs of pressure suppression type containment had adequate safety margins to protect the health and safety of the public.”

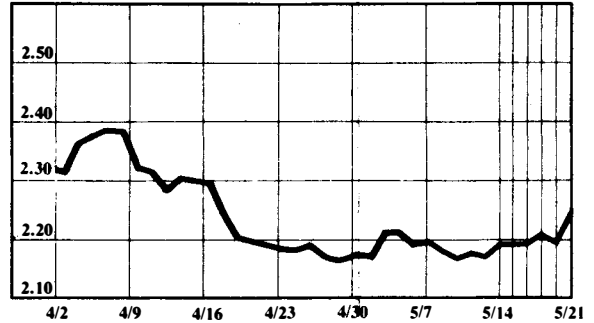
The issues raised in the Public Citizen advertisement are addressed in detail in the response of General Electric. GE documents how the safety issue raised by Hanauer—how a pressure suspension containment system compared to other “dry” containment systems—was subjected to testing, review, and modification in the 1970s. The record of this successful testing, of course, is not secret and is accessible to Public Citizen and to reporters.

GE also refutes in detail the Big Lie that Chernobyl’s safety system bears any resemblance to GE’s nuclear reactors. As one GE spokesman put it, “To say that our reactor and Chernobyl are the same is like comparing a Rolls Royce to a Yugo—they are both automobiles with four wheels.”

# Currency Rates

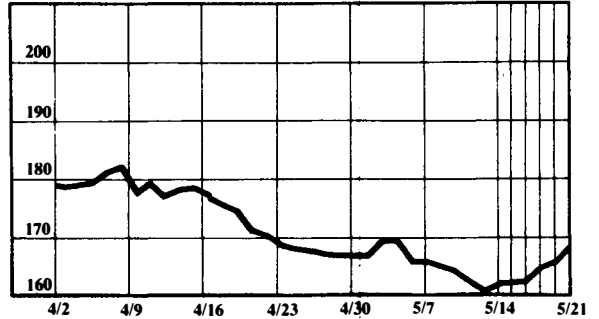
## The dollar in deutschmarks

New York late afternoon fixing



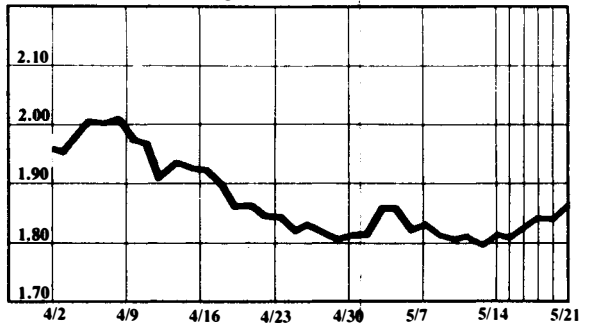
## The dollar in yen

New York late afternoon fixing



## The dollar in Swiss francs

New York late afternoon fixing



## The British pound in dollars

New York late afternoon fixing

