

**In W. Germany**

# Nuclear power controversy

BONN, West Germany (AP) — With the Chernobyl accident still fresh in West German minds, a dispute over a nuclear plant just over the border in France has become a rallying point for the growing ranks of nuclear foes in this country.

The fright brought on by the Soviet nuclear-plant accident in April has not faded in West Germany — it caused \$250 million worth of damage to West German farm crops — and nuclear energy has developed into an emotional issue in the campaign for national elections in January.

Johannes Rau, the opposition Social Democratic Party candidate for chancellor, has called for a phaseout of the 20 West German nuclear power plants now operating.

It was the first time a mainstream candidate has taken an anti-nuclear position. Recent polls said more than 60 percent of West Germans are opposed to nuclear power plants.

Chancellor Helmut Kohl, a conservative Christian Democrat, supports nuclear power, which provides 30 percent of West Germany's electricity. He has warned of dire economic consequences if West Germany scraps its plants.

"Abandoning nuclear power would spell the end of the Federal Republic (West Germany) as an industrialized nation," Kohl told West German television in August.

But Kohl has been forced onto the defensive, especially after an accident Aug. 23 at the plant under construction in Cattenom, France, and the publication of new studies in Bonn that said West Germany could abandon nuclear energy without an economic crisis.

No radioactivity was released when the French reactor building was flooded just across the border from the West German Saarland state. But the reaction in West Germany was immediate.

"France — a dangerous nuclear neighbor," said a headline on the cover of Der Spiegel, the weekly news magazine.

Dieter Ehrenstein, a Bremen University professor of nuclear physics, said on West German television the accident could have led to a Chernobyl-style disaster if Cattenom had already been in operation.

Saarland state filed a complaint against Cattenom's construction with a French court in Strasbourg. The complaint was rejected on Sept. 8, but Saarland officials say they will appeal. Meanwhile, Germans protesting the plant have become a common sight near Cattenom.

Kohl felt compelled to bring up the accident in talks in Paris earlier this month with Premier Jacques Chirac. Chirac promised to provide West Germany with more information about the plant.

Two studies commissioned by the Economics Ministry concluded that abandoning nuclear power was economically possible, but there was no immediate indication that they would change Kohl's position.

Slowly shutting down nuclear plants over the next 24 years would only drive up electric costs by .9 pfennigs (.45 cents) a kilowatt hour, according to one of the studies, conducted by the Essen-based Rhine-Westphalia Institute for Economic Research.

"These documents do not change our policy," said Kohl's Environment Minister Walter Wallmann.

His remarks prompted the ARD television network to ask, "Why then are studies commissioned?"

West Germany, which gave birth to the environmentalist party called the Greens in the 1970s, has long had an anti-nuclear movement.

There have been violent protests at nuclear power plants for years, most recently at the construction site of a nuclear waste reprocessing plant at the Bavarian town of Wackersdorf.

But the April 26 accident at Chernobyl in the Soviet Ukraine inflamed these passions.

"After Chernobyl, anti-nuclear groups were formed spontaneously in every state in the nation," said Helmut Wilhelm, spokesman for the Federal Union of Citizen's Initiatives, a Bonn-based umbrella organization for environmentalists.

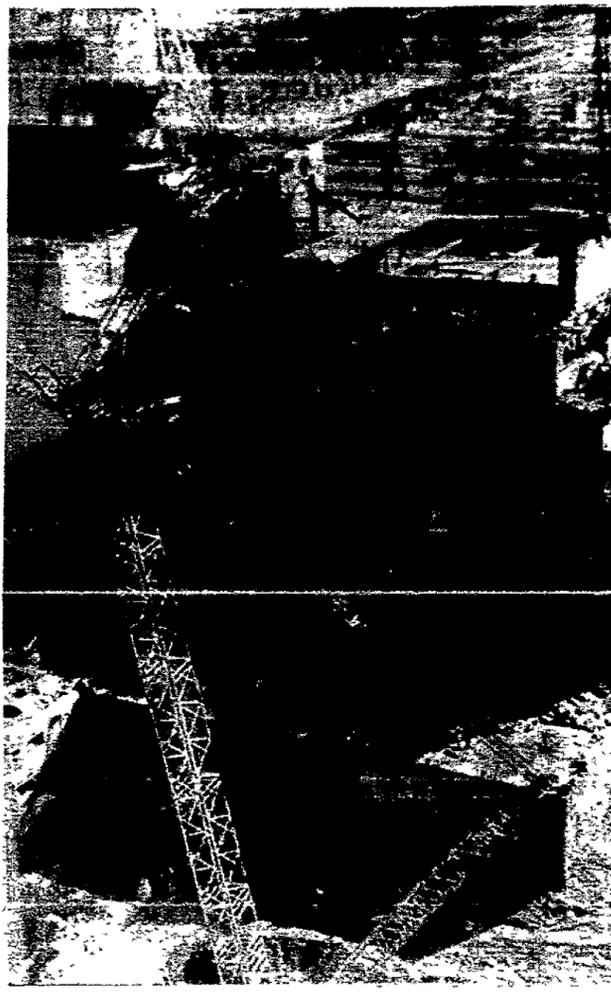
He told The Associated Press that opponents of nuclear energy were no longer mainly from the political left.

West Germany's nuclear industry has gone on the offensive, promoting atomic power in nationwide newspaper advertisements.

Kohl reacted to Chernobyl by creating the Environment Ministry and proposing an international conference on reactor safety.

But opposition parties, crusading against nuclear power, came within half a percentage point of beating Kohl's party in state elections in Lower Saxony on June 15.

West Germany already has some of the world's toughest safety standards for nuclear reactors. But the Environment Ministry is examining the nation's 20 nuclear power plants and is expected to announce measures to beef up safety this fall.



This photo, showing the progress of construction work being carried out at the Soviet's damaged Chernobyl nuclear power plant, was released by Tass on Sept. 27. (AP photo)

# Nuclear test felt in Las Vegas

LAS VEGAS, Nev. (AP) — A nuclear weapons test detonated in the Nevada desert Friday sent shock waves through the upper levels of some buildings in Las Vegas.

The test, which had an explosive punch of up to 150,000 tons of TNT, registered 5.6 on the Richter scale of ground motion at the National Earthquake Information Center in Boulder, Colo.

"We felt considerable ground motion," said Department of Energy spokesman Jim Boyer, who was at a concrete control point 12 miles from ground zero. "My chair began to move and I had to pause to get a better grip on the desk. The ground motion from this one rates fairly high up the line."

No damage was reported at the control point, Boyer said.

Janet Coppa, a secretary in a law office in downtown Las Vegas, 82 miles from ground zero, said hanging plants and a chandelier began to sway seconds after the blast. A security guard at the Landmark Hotel said a chandelier at the top of the resort's tower swayed but guests did not notice any motion.

The Richter scale is a measure of ground motion as recorded on seismographs. A measurement of 5.6 would be equivalent to an earthquake capable of causing considerable damage in inhabited areas.

Boyer said five demonstrators turned out at the gates of the sprawling site to protest Friday's blast.

# Study contends arms control pacts don't curb dangerous weapons

WASHINGTON (AP) — The belief that superpower arms pacts can cut defense spending, eliminate dangerous weapons or influence human rights policies is a myth, says a State Department study.

"If history reveals anything, it is that arms control has proved neither as promising as some had hoped nor as dangerous as others had feared," says the 500-page report, prepared for the State Department's Arms Control and Disarmament Agency by Harvard's Kennedy School of Government.

The report labels as baseless the beliefs — advanced principally by arms control advocates — that either side is willing to give up a weapon in which it enjoys an advantage, that an arms control pact can help reduce military spending and that either side can use arms talks to help control the behavior of the other in resolving regional conflicts, solving economic disputes or improving human rights policies.

"Of the agreements studied," it says, "None required changes in the nature or size of (military) forces."

The report takes on as well several beliefs by opponents of arms control, including the argument that such deals can lull the nation into complacency, leading to lower defense spending. That has happened "only when there were already pressures to reduce or accelerate the defense budget," the report says.

Kenneth Adelman, head of the agency, concurs

that arms pacts have not led the superpowers to scuttle key weapons.

"Arms control has not caused the superpowers to stop going forward with new systems," Adelman says. "It has brought about some rather minimal dismantlement of older nuclear systems. This dismantlement might have taken place anyway, but it was helped along by arms control."

The report examines six sets of talks: The Limited Test Ban Treaty, 1963; The Accidents Measures Agreement, 1971; the Antiballistic Missiles Treaty, 1972; the first interim agreement on strategic arms, SALT 1, 1972; SALT 2, signed in 1979 but never ratified by the U.S. Senate; and the Antisatellite Negotiations of 1977-79, which did not yield a treaty.

"Arms control agreements have been concluded only when neither side had an appreciable advantage; that is, only when there already existed rough parity in the relevant forces of the two sides," the report says.

"While the United States has demonstrated greater flexibility than the Soviet Union on this matter, neither side has been willing to enter into an agreement in which it would suffer enduring inferiority," it adds.

The report was compiled under the direction of Albert Carnesdale, a nuclear engineer who has served for years as a government consultant on arms control, and Richard Haas, who was deputy assistant secretary of state during President Reagan's first term.

Looking at the Iceland summit through the prism

of the report, Carnesdale says, it is clear why the Soviets did not accept Reagan's proposal to eliminate ballistic missiles.

Such a deal, Carnesdale said in a telephone interview, would "leave us with a substantial advantage since we are stronger in air-breathing weapons, such as bombers and cruise missiles. Those are only a small part of the Soviet force," which is dominated by land-based ballistic missiles.

The report cites the Antiballistic Missile Treaty of 1972 as the "cardinal accomplishment of arms control" because it prevented either side from widely deploying defensive weapons designed to shoot down enemy ballistic missiles.

"The ABM treaty was achieved when both sides concluded that competition in this area would prove costly, possibly destabilizing, and in the near term technologically futile," it says.

The treaty is now being challenged by the Reagan administration, which believes that the United States can develop an effective anti-missile defense through the Star Wars research program.

Kremlin leader Mikhail Gorbachev agreed to discuss arms control with Reagan in Iceland hoping he could slow Star Wars research in return for drastic cuts in Soviet offensive systems, but the gambit failed, Carnesdale says.

Among the chief downfalls of arms control, the study says, were the failure to prevent the deployment of long-range missiles capable of carrying many warheads, known as Multiple Independently Targetable Reentry Vehicles or MIRVs; and the inability to reach an agreement to stop development of

anti-satellite (ASAT) weapons.

During the SALT 1 talks at the beginning of the Nixon administration, the report says, "the United States enjoyed a considerable lead in MIRV technology, and was actively testing, producing and deploying MIRV systems."

"The Soviets were still in the development stage, and had not yet flight-tested MIRVs. Neither side offered a serious proposal for constraining MIRVs," it says. "This can be explained in part by the Soviet desire to close 'the MIRV gap' and the American desire to maintain or widen it."

The situation was reversed in the Carter Administration when U.S. and Soviet negotiators were unable to find a formula to prevent the development of anti-satellite weapons, a key stage in the fight to restrict the military uses of outer space.

The report attributes that failure to "the fact that the Soviets alone had demonstrated and deployed an actual ASAT interceptor missile, verification difficulties, the deterioration of U.S.-Soviet relations, and the promise of technological advance toward an effective U.S. ASAT system."

The United States has tried several times to use arms control negotiations to force changes in Soviet behavior in other spheres, such as liberalizing emigration and other human rights policies or curbing Kremlin activities in the Middle East and Africa, but has not succeeded. President Nixon sought without success to persuade Moscow to use its influence with North Vietnam to end the war in Indochina.

**For U.S. astronauts**

# Space construction idea unveiled

SPACE CENTER, Houston (AP) — Rockwell International engineers on Friday unveiled a system that spacewalking astronauts may use to build a 503-foot-long truss to form the backbone of an American space station.

The construction system, resembling four white goal posts connected by rails, would be carried into orbit in the cargo bay of the space shuttle. Astronauts, using pieces resembling a giant Tinkertoy set, would then assemble the truss by building a series of linked cubes.

Rockwell engineer Paul De Wolfe said astronauts Sherwood Spring and Jerry Ross, veterans of an



Charles MacGillivray, a Rockwell International design engineer, shows how their space truss assembly fixture is put together. The cubes are stacked to form the backbone of an American space station. This is one of several systems under study. (AP photo)

earlier space construction project, will test the space station building concept both on land and underwater.

The Rockwell system consists of a frame — the goal posts — within which the truss cubes are assembled. The base of the frame posts are linked by rails. Attached to the rails are two movable platforms.

One astronaut would stand in foot restraints on each of the platforms and snap together struts, made of long pieces of tubing. Fifteen of the struts are assembled to create a 16-foot cube. The cube then slides up the posts, and the astronauts build the next cube. Linked together as they are assembled, the cubes eventually would form the long truss.

Crew modules, solar power equipment and thermal-control radiators would be strung along the truss.

In its final configuration, the station will resemble a rectangle, rather like a football field.

In ground tests, DeWolfe said two engineers were able to assemble one cube every five minutes.

Plans call for the space station to be assembled, segment by segment, in 17 space shuttle flights, said DeWolfe.

Rockwell's assembly concept is one of two being evaluated by the National Aeronautics and Space Administration. Another is being developed by a McDonnell Douglas Corp. The winning concept will be selected by next summer.

As part of the NASA evaluation, Spring and Wood will practice assembling two cubes while on dry land. The assembly system will then be placed in a large pool at the Johnson Space Center so the two men, wearing space suits, can see how it works in water, which mimics the effects of weightlessness.

In a construction experiment on a space shuttle flight last year, Spring and Wood assembled and disassembled two types of trusses. Some of the technology developed on that mission is being used in the Rockwell system.

NASA plans to assemble the space station in orbit by 1994. It will house crews of up to eight astronauts and the agency plans to keep it permanently occupied, rotating crews with the space shuttle as needed.

Megan O'Hara.

"All went well," Ms. O'Hara said. She could not immediately provide Mrs. Christofferson's condition.

The donor heart was from a 16-year-old Nebraska boy who died in an automobile accident, Ms. O'Hara said.

# Artificial heart replaced with real one

MINNEAPOLIS (AP) — A 28-year-old homemaker who is the fourth woman to receive an artificial heart underwent surgery Saturday night to receive a human heart, a hospital spokeswoman said.

Surgery on Nicole Christofferson of Minot, N.D., began at 7:30 p.m. and was completed at 12:30 a.m., said Abbott Northwestern Hospital spokeswoman

## Intelligencer Featured Carrier



### Chris Morris

Chris Morris is this week's featured carrier for the Daily Intelligencer. Twelve year old Chris has been delivering his route of 36 papers to Doyle, Harvey and Union Streets for 6 months. He attends Doyle Elementary School where he is in the 6th grade. At school he plays the trumpet. His hobbies are collecting baseball cards and coins. With the money he has earned on his route he has been able to put money in his savings account. Chris wants to be a Newspaper Circulation District Manager when he grows up. The Daily Intelligencer would like to congratulate Chris on his excellent service and wish him the best of luck in the future.

If you have a carrier you would like to see featured because of his /her outstanding service, please write:

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333N. Broad Street, Doylestown, Pa.  
Circulation Department  
345-3020 • 343-6130 • 249-0500