

accident, Tokaimura elected an anti-nuclear representative to its assembly for the first time.

In the aftermath of the accident, Japanese power companies have scaled down to 13 from the 20 or so new reactors they had planned to build by 2010. But Japan remains committed to nuclear power. Indeed, as of 1 January, oversight for all nuclear facilities except those confined to research will be moved from the STA to the Ministry for Economy, Trade, and Industry, a new ministry whose predecessor has been a strong backer of nuclear power.

TONI FEDER

Chernobyl Nuclear Power Plant Closing

The last nuclear power reactor at Chernobyl is scheduled to be shut down on 15 December, meeting an end-of-year deadline agreed to by Ukraine's President Leonid Kuchma in 1995. On 26 April 1986, the Chernobyl plant was the site of the world's worst nuclear accident.

Chernobyl Unit No. 3 has provided roughly 3% of Ukraine's electrical energy; 45% of the country's energy is nuclear. Two other reactors survived the 1986 explosion but were closed in 1991 and 1996 because of technical problems. The graphite-moderated Chernobyl reactor model is not up to recognized Western safety levels.

Shutting down the Chernobyl nuclear power station completely "is a very symbolic event," said Volodymyr Makukha, of the Ukrainian embassy in Washington, DC. "It's a political decision, and quite painful for Ukraine from an economic point of view." Still, he added, "there is a widespread understanding in Ukraine of the potential danger of this reactor . . . and therefore [of] the need for its closure." Not surprisingly, the rest of the world welcomes the shutdown: From an environmental standpoint, said a European Commission official, "it's among the best news we have had this year."

Indeed, to avoid courting another Chernobyl-scale nuclear disaster, Europe, the US, and other members of the international community had pressed for closure of the plant (they continue to push for the shutdown of 13 similar reactors in the former Soviet Union). They have promised to help Ukraine create jobs and retrain displaced workers, privatize its energy sector, tap other sources of energy, use energy more efficiently, and safely decommission the nuclear plant.

"We are working to avoid a power gap on 16 December," the European Commission official said. In the longer term, the international community will aid Ukraine both technically and financially. The country plans to make up the lost power by completing two modern, water-cooled reactors in Khmelnytsky and Rivne, southwest and west of Chernobyl, respectively. Their construction has been stalled for about a decade, and is contingent on loans worth \$800 million pending from the European Bank for Reconstruction and Development, and Euratom, the body that oversees nuclear energy and industry in the European Union. Fossil fuel and coal are also being looked into, said Richard Reister, of the US Department of Energy's Office of International Nuclear Safety and Cooperation, adding, "Ukraine does not lack energy-generating capacity. Instead, it lacks funds for purchasing fuel."

The international community is also working with Ukraine to prevent radioactivity from seeping out of the reactor that exploded in 1986. The plan is to start building a new shelter, or reinforcements for the current con-



MEMORIAL TO WORKERS who lost their lives in the 26 April 1986 nuclear accident at Chernobyl.

crete one, next year.

Since 1995, the European Union, the US, and other countries have given Ukraine nearly \$1 billion for decommissioning and improving safety at the Chernobyl site, and have lent it a total of about \$2 billion for its energy sector.

TONI FEDER

Physicists Take Their Skills to the Hill

It's very different from being in a physics lab," says Brendan Plapp, one of about 30 scientists sponsored by as many scientific societies to spend a year on Capitol Hill in Washington, DC. "You're in this room that's 15 by 40 feet, you've got six desks, you've got C-SPAN running, and you've got phones ringing. It's active," says Plapp, who was sponsored by the American Physical Society (APS) as part of the American Association for the Advancement of Science's congressional fellows program. After a two-week orientation that includes visits to government departments and lessons on the budget process, the fellows settle down to work as legislative assistants for congressional committees or members of the House of Representatives or Senate.

"We try to always have a congressional fellow in the office," says the legislative director at the office of Rep. Edward J. Markey (D-Mass.), one of the 120–150 offices that tap this scientific skill. Plapp, who came to Washington after completing a postdoc at the University of Texas in Austin, is now in charge of a caucus on nuclear nonproliferation and two bills for Markey's office. It was partly his inter-

est in influencing nuclear weapons policy that drew Plapp to physics in the first place. "Fallout from the Manhattan Project," he quips.

From PhD to policy

The APS is sponsoring two fellows for 2000–01, after having had none last year. Other societies that fund physicists as congressional fellows include the American Geophysical Union (AGU), the American Institute of Physics (AIP), and the Optical Society of America (OSA).

For her APS-sponsored congressional fellowship, Sherri Stephan is working for the Senate Subcommittee on International Security, Proliferation, and Federal Services on issues ranging from ballistic missile defense and cyber-terrorism to global satellite imaging and the shortage of technically skilled workers. She recently received her PhD from Boston University for research on the interface between the solar and interstellar winds. While at BU, she engaged in political lobbying through the Science Coalition, an alliance aimed at maintaining federal support of university research.

This year's AGU fellow, Kirsten Cutler, recently earned a PhD in isotope geochemistry from the University