INSP
International Nuclear Safety Program

Chornobyl Report

A biweekly update of Chornobyl support activities

Transferring safety system technology to Chornobyl

Final preparations to ship a safety parameter display system (SPDS) to Chornobyl Unit 3 are nearly complete. Factory acceptance testing was conducted by Westinghouse Electric Corporation in Kharkiv at the Westron facility where the system was assembled. Westron is a consortium established in 1994 between Westinghouse and Hartron Corporation of Ukraine for the implementation of computer-aided control systems in Ukrainian nuclear power plants.

Technical experts from Parsons Power Group examined the SPDS, reviewed the acceptance test results, and performed verification tests to ensure that the system satisfied the design specifications. A representative from a Ukrainian commission chaired by a Chornobyl nuclear power plant (NPP) official also reviewed the test results and identified further documentation requirements. All deviations were resolved last month.

The Chornobyl SPDS was designed by Westinghouse Electric Corporation and RDIPE, the Russian designer of the RBMK reactor, based on the technology used to develop the SPDS for U.S. commercial reactors. The system is designed to provide reactor operators with critical safety information they can use to rapidly assess plant conditions and take appropriate corrective actions. The SPDS automatically and graphically displays the status of critical safety functions and illustrates whether these functions are within safe operating ranges. With this information, operators can better determine whether implementation of emergency procedures is required.

Chairman of the Board of Directors of Hartron Corporation, Yakov Isenberg (right), demonstrates operation of the Chornobyl safety parameter display system to Ukraine President Leonid Kuchma (center). President Kuchma visited the Westron facility while in Kharkiv in July.

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Pacific Northwest National Laboratory
Operated by Battelle for the U.S. Department of Energy

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The Chornobyl SPDS will be installed during a planned outage in late 1998. A similar prototype system is in operation at Kursk Unit 2 in Russia, which also is an RBMK design. Delivery of SPDSs also is in progress for the Ukrainian nuclear plants with reactors of the VVER-1000 type. This summer, SPDSs were installed at three VVER-1000 units at South Ukraine, Zaporizhzhya and Khmelnytskyy NPPs.

Ukrainian workers are credited for successfully relocating this satellite dish to the Slavutych Laboratory.

Relocated satellite dish improves Slavutych Laboratory communications

Improved communications with the Slavutych Laboratory for International Research and Technology will be the result of efforts by Ukrainian workers to move and reinstall a communications satellite receiver to a newly constructed tower adjacent to the Laboratory. The project is part of a U.S.-Chornobyl Center effort to establish a telecommunications system that will provide the high level of reliability needed to support the international activities conducted at the Slavutych Laboratory. Telecommunications experts also are working to install new multiplexing telephone equipment that will significantly improve telephone communications between the Laboratory and the world.

Worker safety equipment destined for Chornobyl

Shipments of equipment for radiological and industrial safety, provided by the United States to help protect workers at Chornobyl NPP, are in various stages of delivery. They include

Dose reduction equipment - Portable enclosures and local radiation monitors were shipped and are expected to arrive in Ukraine this month.

Dust suppression equipment - A facility decontamination system and wet/dry vacuum system recently arrived at the Chornobyl NPP site, marking the final delivery of all dust suppression equipment.

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Industrial safety equipment - Some equipment still awaits Ukrainian customs clearance. Additional concrete saw and drilling equipment ordered in June 1998 recently arrived at customs.

U.S.-Ukraine Foundation links Richland and Slavutych

The U.S.-Ukraine Foundation recently awarded a grant to the cities of Richland, Washington, and Slavutych, Ukraine, for a two-year community partnership project. Richland and Slavutych are among seven pairs of U.S. and Ukrainian communities that were selected to receive this year's grants.

Plans are to focus the community partnership project on initiating economic development activities in Slavutych. The U.S. Department of Energy's International Nuclear Safety Program (INSP) and Washington State University Tri-Cities' Business LINKS program are teaming to establish a business assistance center that will support emerging and growing businesses in the Slavutych area. Battelle's Pacific Northwest National Laboratory is helping to facilitate the project and will represent the partnership at an orientation meeting for the U.S. partner communities on September 18 and 19 in Kansas City.

The U.S.-Ukraine Foundation provides grants financed by the U.S. Agency for International Development for community partner projects focused on economic and municipal development.

News items and comments can be directed to INSP Communications, (509) 372-6015, or e-mail susan.senner@pnl.gov.

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