Appendix F

How Safety Projects Are Selected

When the U.S. Department of Energy began its efforts to improve safety, an initial set of projects was selected based on requests for assistance from the operators of Soviet-designed reactors and on input from international nuclear organizations who had evaluated these plants and identified safety deficiencies in numerous reviews following the Chornobyl accident. Project selections also were based on U.S. participation on international steering committees that were established to identify and prioritize key safety issues associated with Soviet-designed nuclear power plants. Further, the United States coordinated the selection of its projects with the members of the G-24 and international financial institutions who are supporting safety upgrades at Soviet-designed nuclear power plants.

In addition to the above practices, projects now are chosen by applying specific selection criteria in two phases. Proposed projects are first screened by U.S. specialists to ensure that they will improve the nuclear safety of operating plants, prevent or contain core damage, and apply established technologies. Candidate projects that meet the screening criteria are evaluated in more detail by U.S. specialists and host-country experts who apply three evaluation criteria to determine whether the project meets the program mission:

◆ **impact on safety**—The project is evaluated against available independent safety reviews and risk assessments to verify that it improves safety. Regulatory involvement, technology transfer, sustainability, and the number of plants affected also are factored into the evaluation.

◆ **cost-effectiveness**—Using a preliminary cost estimate, the project is reviewed in relation to other ongoing projects to determine the comparative investment in safety. Projects are given priority that complement and leverage benefits from other projects, use joint ventures with former Soviet Union countries, or enhance the host-country's capability to undertake its own upgrades.

◆ **host-country commitment/sustainability—**The host-country's desire for the project and willingness to commit funds and personnel are reviewed to verify the country's ability to sustain the project for the long term. In the case of technical shortcomings, the project must transfer the technology and infrastructure needed for sustainability.

Based upon this evaluation and the availability of resources, a priority and schedule are established for the project. This process ensures that projects are consistent with the policies and goals under which U.S. financial support is committed. It also ensures that the needs of the host countries are met and the required resources are available.