

INFECTIOUS DISEASES

Global Fund Pulls Myanmar Grants

The Global Fund to Treat AIDS, Tuberculosis, and Malaria has canceled nearly \$100 million of grants that over 5 years would have helped Myanmar fight the three diseases. Citing concerns about Myanmar's new restrictions on travel and procurement of medical supplies, The Global Fund announced on 19 August that it made the unprecedented decision to retract grants, saying the ambitious

effort to prevent and treat these diseases "cannot be managed in a way that ensures effective program implementation."

Myanmar receives scant international aid because of widespread distrust of the junta that runs the country, an impoverished Southeast Asian nation formerly known as Burma. The Global Fund, a Geneva-based nonprofit, thought it could prevent corruption by funneling money through the United Nations Development Programme, which would distribute the funds to non-governmental organizations. The grants, awarded in April, also came with unusually stringent monitoring procedures. But last month, the junta announced new policies that nixed the deal, such as requiring 3-weeks' notice for any trips within the country, says The Global Fund spokesperson Jon Lidén. "You just can't run a program with conditions like that," says Lidén. "You can do something on a limited scale, but not at the pace our grants are expected to move."



Down and out. Myanmar relies heavily on international groups to provide services like this crowded AIDS hospice outside Yangon.

One foreign aid worker in Myanmar who asked not to be identified says "political realities" doomed the program from the start. "As projects, they were overfunded and set unrealistic targets," he contends. Still, he urged other donors to "massively increase assistance" in a "more responsible package" that bolstered the private sector and selective government efforts.

However, one vocal critic of the junta, epidemiologist Chris Beyrer from Johns Hopkins University in Baltimore, Maryland, supported The Global Fund's approach and blames recent political turmoil within the junta for the program's demise. "It is just terrible for the people of Burma that the hardline faction of the junta now in power under General Than Shwe has again made it clear that political control remains so much more important to them than the well-being of the Burmese people," says Beyrer.

Although some in the U.S. government had initially expressed deep concerns about the grants to Myanmar, Lidén says no one from the Bush Administration or Congress pressured The Global Fund to scuttle the program. The Global Fund plans to wrap up all business by 1 December and recover much of the \$11.8 million disbursed. **—JON COHEN**

NUCLEAR POWER

Ontario to Mothball Two CANDU Reactors

TORONTO—Only months after Canadian-made reactors were rejected in U.S. and Chinese markets, Canada's 60-year-old civilian nuclear industry has suffered a potentially mortal blow at home. Facing a \$1.6-billion repair bill, the government of Ontario decided this month to mothball two 540-megawatt Canada Deuterium-Uranium (CANDU) nuclear reactors more than a decade before their projected retirement date.

"Ontario's decision to write off two reactors early could signal the end of the road for CANDU," says Tom Adams, executive director of Energy Probe, a nonprofit nuclear watchdog group based in Toronto. In January, the reactor company's U.S. partner, Dominion Resources of Richmond, Virginia, decided to abandon plans to seek a U.S. license for its next-generation CANDU. And in May, Chinese authorities announced that they weren't interested in buying any units beyond the two 700-megawatt units already operating near Shanghai.

Canadian officials have long touted the CANDU reactors, manufactured by the government-owned Atomic Energy of Canada Limited (AECL), as an example of the country's technological prowess. A descendant of

the Manhattan project, CANDU's first forebear went on line at Chalk River, Ontario, in 1945. Since then some 34 large commercial versions have been built and installed around the world, including 20 in Ontario. But their complex cooling systems, which allow the reactor to be refueled without going off line, have proven very costly to maintain.

The reactors to be mothballed are two of eight at the Pickering Nuclear Station in the Toronto area. Built in the 1970s, they've been idle since 1997 largely because of thinning in the hundreds of pipes carrying heavy water coolant from the reactor core. Two years ago, three other laid-up Ontario reactors were restarted after refurbishments costing billions of dollars, and their operators now say more repairs are not far off. Adams says that CANDU reactors of various vintages in Argentina, India, Pakistan, Romania, China, and Korea will require extensive repairs sooner than planned.

Experts point to the corrosive effect of the heavy water coolant as a major culprit, with the reactor's design contributing to the large repair bills. "Just getting at the pipes is fantastically difficult, dangerous, and expensive," says Frank Greening, former head of nuclear

cooling systems analysis at Ontario Power Generation (OPG), the government utility that owns all of Ontario's CANDUs. Even for reactors in which the coolant feeder pipes haven't yet deteriorated, says John Luxat, president of the Canadian Nuclear Society and OPG's former head of nuclear safety, "the costs of demonstrating [their safety] are becoming a problem."

Ken Petrunik, AECL's chief operating officer, says the CANDUs, which cost about \$1.5 billion new, "perform well in their early years" and that their ability to refuel on line has yielded "better performance results than any other reactor type in the world." He downplays the impact of Ontario's decision to mothball two reactors by noting that AECL is only weeks away from launching a sales campaign for an advanced version of the CANDU reactor that will compete with new designs from other countries (*Science*, 19 August, p. 1168). Petrunik also discounted the recent bad news from the United States and China. "We remain confident we'll secure a reasonable share of the world market," says Petrunik.

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