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News

Chemical weapons agency shifts focus

Diplomats ponder the dangers posed by the drug industry.

Daniel Cressey

Advances in science and changes in the pharmaceutical industry are producing new threats to the international Chemical Weapons Convention, experts warn.

Diplomats from the 183 countries that are signatories to the convention are meeting in The Hague, the Netherlands, on 7–18 April to review the 11-year-old convention, which is generally regarded as a success. To date, implementation of the convention has focused mainly on eliminating existing chemical weapons, although both the United States and Russia will probaby miss their 2012 deadline. The emphasis will soon switch to preventing future production.

Special facillities have been set up to dispose of chemical weapons.

P. PSAILA/SPL

One threat to the convention is the pharmaceutical industry, which is building more sophisticated facilities that could easily be converted to produce chemical weapons. And many of these facilities are in countries without established regulatory procedures, according to the Organisation for the Prohibition of Chemical Weapons, the watchdog that oversees implementation of the convention. Such sites should be monitored more closely, it says.

There are around 4,700 sites the organization calls other chemical production facilities (OCPFs) — which make everything from fertilizers to drugs — even though they do not produce chemicals on the convention's list of controlled agents. "Because of their characteristics and design, a good number of these facilities could quickly convert to the production of toxic chemicals if anyone so wishes. That makes them an object of particular interest," the organization's director-general, Ambassador Rogelio Pfirter, told Nature. Only around 10% of these sites have been inspected, and in some countries with large numbers of such facilities, just 1% have been inspected.

In a report released last week, the technical secretariat of the organization says that the agency "remains apprehensive about the present insufficient level of verification" of such facilities. Even though the number of inspections has increased, the effort "still does not provide a sufficient level of assurances for non-proliferation purposes", the report warns. The inspection effort has been hampered by the vast number of OCPFs and the fact that the organization generally relies on host countries to provide information on them, the report says. A new way of selecting sites for inspection is now being implemented, Pfirter says.

A number of countries attending the meeting are expected to agree that the agency should shift its focus from facilities making scheduled agents to OCPFs. However, developing nations such as China, which has a large number of OPCFs, may oppose such a move.

Other key concerns cited by the organization involve the "inexorable march of science and technology" including the growing interface between chemistry and biology and new technologies being developed. Microreactors, for instance, can produce more than 30 tonnes of potential chemical weapons agents a year, including phosgene gas, which was used in the First World War.

"This trend to a more versatile industry means that some of the underlying assumptions we had in the verification system developed in the 1980s may no longer apply," says Ralf Trapp, chemical disarmament consultant and former secretary of the organization's science advisory board.

"If someone were to open a chemical weapons programme today he or she would be looking at those developments, not only at traditional agents," Trapp says.

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