



Trust and Verify

The Bulletin of the Verification Technology Information Centre

No. 31 September 1992

CD agrees CWC text

As expected, the plenary meeting of the Conference on Disarmament approved the draft text of the Chemical Weapons Convention. The draft text was originally contained within CD document CD/CW/WP.400/Rev.2 dated 10 August 1992.

Commonly known as 'Rev.2', the draft treaty was approved by the *Ad Hoc* Committee on Chemical Weapons on 26 August, the text being reproduced in document CD/1170, and by the Plenary meeting on 3 September, with the text being reproduced again in CD/1173.

Although no further amendments have been made, nor are likely to be made at this late stage, some states have issued statements indicating their reservations about some of the CWC provisions; however, this is unlikely to prevent these states from signing the treaty.

The draft text will be considered by the First Committee of the United Nations General Assembly, which deals with political and security issues. This body will consider the CWC during October or November. If all goes well, the CWC will go to the full General Assembly, probably in early December.

At the General Assembly, a resolution will have to be passed recommending the adoption of the CWC by UN member states, and if passed will mean that the CWC could be open for signature in January 1993. It has been proposed that a signing conference be held in Paris.

Decisions taken by the First Committee are taken by a simple majority, whereas 'important questions', such as a treaty recommendation, considered by the General Assembly require a two-thirds majority for approval.

Currently, some 70 states have indicated that they will sign the CWC, including all 51 states of the CSCE. Once 50 states have signed, the Preparatory Commission can be established. The CWC will enter into force a minimum of two years after it has been opened for signature and after 65 states have deposited their ratifications.

Although the agreement of a treaty text by the CD is a major milestone in the progress of the CWC, its future is still far from certain.

Moscow confirms BWC breach

Allegations have been made that the Soviet Union had violated provisions of the 1972 Biological Weapons Convention; and that these violations had continued following the break-up of the Soviet Union.

Senior officials from Russia, the United Kingdom and the United States met in Moscow on 10 and 11 September to discuss BWC compliance issues.

The Russian delegation stated that President Yeltsin had issued a decree on 11 April 1992 on securing the fulfilment of international obligations in the area of biological weapons; confirmed that Russia had terminated

offensive research, dismantled experimental production lines for biological agents, closed the biological weapons test facility and dissolved the department in the Ministry of defence that had been responsible for the offensive biological programme.

The delegation also stated that military biological research funding had been cut by 30 per cent, and the number of personnel involved cut by 50 per cent.

In response to the concerns raised by the US and the UK, President Yeltsin has ordered an investigation into activities at the Institute for Ultrapure Biological Preparations at St Petersburg. The US and the UK have been invited to participate in this investigation.

A supplementary, trilateral, confidence-building regime is to be established following this meeting; visits to any non-military biological site in any of the three states may be made at any time 'in order to remove ambiguities', subject to the need to protect proprietary information. The first visits will take place in Russia. A working group is to be established to address the issue of extending such visits to military sites.

The Russian authorities have also agreed to provide further information about the dismantling of the programme and to allow 'prominent independent scientists' to be invited to participate in the investigation of cases concerning compliance with the BWC.

In addition to the working group on visits to military sites, the three Governments agreed to create working groups to cover compliance, confidence-building and verification, co-operation on biological defence and conversion of facilities.

Nuclear testing update

Chinese testing

On 25 September, the Chinese carried out its second nuclear test of this year at the Lop Nor test site. Preparations for this test, visible through comparatively low-resolution satellite imagery, were described by VERTIC consultant Vipin Gupta in the last issue of *Trust & Verify*.

The explosion was detected by at least 18 seismic stations. Available seismic data reveals that the test had a magnitude of 5.2 on the Richter scale, which suggests an explosive yield of 1-20 kt. The same data indicates the point of detonation to be at 41.8°N, 88.4°E.

The timing of the test indicates that China has considered the technical benefits of testing to be more important than the political impact with respect to the Russian and French testing moratoria and the events in the United States Congress.

United States House of Representatives vote

On 25 September, the US House of Representatives voted in favour of provisions limiting nuclear testing similar to those passed by the Senate on 3 August (see last issue).

The provisions relating to United Kingdom testing are as follows: 'The President may authorise the United Kingdom to conduct in the United States, within one period covered by an annual report, one test of a nuclear weapon if the President determines it is in the national interest of the United States to do so. Such a test shall be considered as one of the tests within the maximum number of tests that the United States is permitted to conduct during that period.'

The bill in which these provisions are contained, the Energy and Water Development Appropriations Bill, has yet to be approved by the President, who may either approve it or veto it in its entirety.

United States testing

On 18 September the United States carried out its fifth nuclear test of 1992. Codenamed 'Hunter's Trophy', the test was of low yield (0-20 kt) and was carried out in a 1264 foot tunnel. On 23 September, the US carried out another test, codenamed 'Divider'. The yield of this test is not yet known.

'Hunter's Trophy' was the first US test since the Senate vote on 3 August (see above).

Bush speech to the United Nations

In a speech to the United Nations General Assembly on 21 September, President Bush outlined further changes in US foreign policy.

Peacekeeping

Mr Bush said that UN peacekeeping was of growing importance as a mission for the US military and that he has asked the Department of Defense to place a 'new emphasis' on this role.

The President highlighted five 'key areas' for which, he suggested, the Security Council should meet to develop 'concrete responses':

- 'Nations should develop and train military units for possible peacekeeping operations and humanitarian relief. And these forces must be available on short notice at the request of the Security Council and with approval, of course, of the governments providing them';
- multinational units should train together, which should include co-ordinated command and control and interoperability of equipment and communications;
- member states should designate stockpiles of resources for assistance in humanitarian emergencies to save time in a crisis;
- planning, crisis management and intelligence capabilities for peacekeeping and humanitarian operations should be developed; and
- 'We must ensure adequate, equitable financing for UN and associated peacekeeping efforts.'

The President did not comment on the three-quarters of a billion dollars owed to the United Nations by the United States, some of which was towards the costs of peacekeeping duties, but did state that 'the United States will review how we fund peacekeeping and explore new ways to ensure adequate American financial support for UN peacekeeping and UN humanitarian activities. I do believe that we must think differently about how we ensure and pay for our security in this new era.'

The President stated that he had directed the establishment of a 'permanent peacekeeping curriculum' in US military schools, and offered training facilities for UN troops at US facilities, mentioning in particular Fort Dix.

However, the President did not commit himself to assigning troops to current UN peacekeeping missions.

Security Assurances

The President reaffirmed the United States' policy of seeking an indefinite extension of the NPT at the 1995 Extension Conference, and called on the Security Council to 'reassure the non-nuclear states that it will seek immediate action to provide assistance in accordance with the charter to any non-nuclear-weapon state party to the NPT that it is a victim of an act of aggression or an object of threat of aggression involving nuclear weapons.'

Many non-nuclear-weapon states have in the past called for positive security assurances — that is an assurance that if a non-nuclear-weapon state is attacked with nuclear weapons, a nuclear-weapon state will take action in support of it; a negative security assurance is one where a nuclear-weapon state gives an assurance that it will not attack non-nuclear-weapon states with nuclear weapons. The only security assurances that have been given in the past by the nuclear states have been negative.

The Bush announcement is significant as it shows that there is some interest in positive security assurances. However, having the Security Council as the protector may not satisfy many states. Non-nuclear-weapon states have expressed concern, not only about attacks from future nuclear-weapon states, but also in eliminating the possibility of attacks from the existing nuclear powers — the same states that have a veto power on Security Council actions.

Arms Control and Disarmament Agency

The President announced an intention to reorient the US Arms Control and Disarmament Agency (ACDA) so that it is focused on providing technical support for non-proliferation, weapons monitoring and destruction and global defence conversion.

Mr Bush stated that 'ACDA should be used not only in completing the traditional arms control agenda, but, just as importantly, in providing technical assistance on our new security agenda'.

US to buy Russian uranium

On 31 August it was announced that the United States would purchase from the Russians large quantities of uranium that had formed part of the military stockpile. It has been reported that this may come direct from material recovered from nuclear weapons.

The agreement exists only in outline form, but it is expected that shipments would start in 1995. It is not clear what the United States will use the material for, as the stated use is for civil nuclear power reactors, yet it is reported that the purchase is being made by the US military.

Although there has been much discussion in recent months about technologies for the dismantling of Soviet nuclear weapons, there has been comparatively little discussion about what to do with the large quantities of fissile materials contained within them (see also below).

UK, France and nuclear dumping

Controversy has been mounting over the British and French attitudes towards the disposal of sections of nuclear submarines.

A conference to discuss pollution in European waters, held on 24 and 25 September, had been expected to outlaw the dumping of nuclear wastes at sea. However, both the British and the French have had problems in deciding how to dispose of various parts of nuclear-powered submarines, and wish to leave open the possibility of disposing of them at sea.

The British position appears to be that if such disposal were to be outlawed by the draft treaty, then Britain would not sign it.

As *Trust & Verify* went to press the conclusion of the meeting was not clear.

Sellafield MOX plant

A joint venture to produce mixed oxide (MOX) fuel elements at the Sellafield reprocessing plant on the west coast of England has been announced. MOX fuel is a combination of uranium oxide and plutonium oxide. This fuel is used in a nuclear reactor in much the same way as conventional fuel elements.

British Nuclear Fuels, operators of the Sellafield (formerly Windscale) plant are currently in negotiations with Kraftwerkunion (KWU), a subsidiary of Siemens. KWU had been planning to construct a MOX plant at Hanau, near Frankfurt, but has run into local opposition.

The MOX plant at Sellafield will be closely connected to the new Thermal Oxide Reprocessing Plant (THORP) that is currently under construction. The MOX plant is expected to have an annual production of 120 tonnes of fuel per year.

Japanese plutonium shipments

Further preparations are being made for the controversial shipments of plutonium to Japan to start. On 24 August, the specially adapted cargo ship *Akatsuki Maru* left the port of Yokohama, Japan, for Cherbourg, France. It is expected to arrive at Cherbourg in the middle of October.

The ship will transport one tonne of plutonium back to Japan. This plutonium has been separated from Japanese fuel rods at the Cap La Hague reprocessing plant on the Channel coast of France.

The 4,800 tonne *Akatsuki Maru*, which on its return journey will be carrying sufficient plutonium to make at least 100 nuclear weapons, is to be escorted by a 6,500 tonne cutter, *Shikishima*, of the Japanese Maritime Safety Agency. Part of the controversy is that the escort cutter is lightly armed, with only two 35-mm machine guns and two 20-mm anti-aircraft guns.

Curiously, the *Shikishima* has already returned to Japan, leaving the *Akatsuki Maru* without an escort. It has been pointed out that the need for an escort for the latter is much greater on the return journey.

Many countries on possible routes for the return journey have stated that they do not wish the ships to pass through their territorial waters. For example, South Africa has warned the ships not to come within 200 miles of its coastline. Many south Pacific nations have expressed unease.

Over the next 20 years or so, Japan plans to transport 30 tonnes of plutonium from Cap La Hague and Sellafield in the UK. By the year 2000, Japan plans to open up its own reprocessing plant and plans to have a stock of 85 tonnes of plutonium by 2010.

The stated intention of the Japanese Government is to store fuel for a new generation of fast breeder reactors; however many outside experts claim that the amount of plutonium acquired greatly exceed the quantities required for such reactors. Japan's first electricity generating fast breeder, Monju, is to begin operating in 1993.

Fears that the Japanese Government have long-term plans to develop nuclear weapons are unlikely to be true; but the effect on other states within the region, most notably North Korea, of Japanese stockpiling plutonium may be significant.

CIS, Japan and fast breeders

Following the cancellation or suspension of fast breeder reactor research programmes in Britain, the United States, France and Germany, similar programmes in Japan and the CIS are now the last in the world.

The Japanese Science and Technology Agency (STA), a government body, has proposed a co-operation agreement for development of a new generation of plutonium-fuelled reactors.

The agreement would be with the CIS, rather than Russia, as the earlier research projects of the Soviet Union had facilities in more than one state. One test reactor appears to be in Russia, another appears to be in Kazakhstan.

In the News

No Arctic radiation leak

In recent weeks there has been speculation that the Soviet Union had dumped nuclear waste, including naval reactor components, in the Kara Sea, within the Arctic circle.

A Norwegian expedition to survey the area, which until recently had been closed, took samples at 11 points. The expedition leader, Lars Foyn, has been quoted by the Norwegian news agency, NTB, as saying 'If there has been dumping in the area, we can say that [the containers] have not leaked radiation yet'.

Cuba halts nuclear plant

According to a Reuters report, Cuba has now suspended the construction of its first nuclear power plant after more than \$1 billion dollars had been spent on it. The country is unable to continue the project for economic reasons. Reductions in aid from Russia following the break-up of the Soviet Union has triggered an economic crisis in Cuba.

CW destruction

An agreement has been drawn up between the Russian authorities and the German company Lurgi AG for co-operation on the destruction of chemical weapons materials.

Lurgi AG is the company responsible for the construction of the destruction plant at Munster, which was visited by a Russian delegation in early September.

Russian withdrawals from the Baltic states

Russia is to accelerate the withdrawal of its troops from the Baltic states. It has been announced that all Russian troops will have been withdrawn from Lithuania by 31 August 1993.

The previous Russian position was that its troops would remain in each of the Baltic states until 1994. The Lithuanian Government had hoped that withdrawal could take place before the end of 1992.

It is believed that this new date for withdrawal will also apply to Russian troops stationed in Latvia and Estonia.

Rio agreements update

At their recent informal meeting in Scotland, the EC Environment Ministers reaffirmed that it was the intention of the EC to ratify the Framework Convention on Climate Change and to prepare national strategies for its implementation before the end of 1993.

The Ministers also agreed the need for early progress on the biodiversity convention and emphasized the importance of setting the sustainable development commission for the implementation of Agenda 21.

Yugoslavia embargo

NATO's Standing Naval Force Mediterranean (STANAVFORMED) has been carrying out Operation Maritime Monitor in the Adriatic Sea, since 16 July, in support of the embargo on the former Yugoslavia.

On 27 August, NATO's Defence Planning Committee agreed that STANAVFORMED should be temporarily replaced in this role by the Standing Naval Force Atlantic (STANAVFORLANT) for the period 9-26 September. This will allow the Mediterranean force to carry out a change of ships and of command.

UN inspections in Iraq

In an interview appearing in the October issue of the magazine *GQ*, David Kay, who led UN/IAEA inspections in Iraq as part of the UN Special Commission, gives a more personal side to the processes of verification.

The interview highlights the problems of using second-hand equipment for verification. Kay talks of a situation when his team entered an airbase and, from a water tower, spotted over a hundred trucks carrying calutrons, used for enriching uranium. As the lorries

moved off, the first inspectors to pursue them ran out of fuel. They were in a British-supplied Land Rover that had been shipped to the Gulf for the war — it had a broken fuel gauge.

Controlling the Global Arms Threat

The Canadian Centre for Arms Control and Disarmament has produced the twelfth in its series of *Aurora Papers* entitled 'Controlling the Global Arms Threat'.

The paper, edited by Peter Brogden and Walter Dorn, includes the proceedings of the June 1991 Workshop on the Technology for Arms Control Verification in the 1990s, held in Toronto.

Topics covered in the paper include industry and arms control, satellite and airborne detection and imaging, undersea detection, nuclear proliferation, seismic verification and detection of chemical weapons materials.

Fissile materials report

The Technical Peace Research Group of the Institute for Physical Resource Theory at the Chalmers University of Technology, Göteborg, Sweden has published a report by Johan Swahn entitled *The Long-term Nuclear Explosives Predicament: the Final Disposal of Militarily Usable Fissile Material in Nuclear Waste from Nuclear Power and from the Elimination of Nuclear Weapons*.

The 250-page report includes reviews of civil and military nuclear technologies, the quantities of materials produced and methods for long-term practicably irrevocable disposal of fissile materials.

VERTIC News

Questionnaire

Trust & Verify has been produced for more than three years, and is now sent to over 1300 people around the world. We are in regular contact with some of our readers, but from others we have no feedback. We have therefore included a questionnaire with this issue, to help us find out what you think of *Trust & Verify*. As a special incentive for readers to complete their questionnaires promptly, we will send a free copy of *Verification Report 1991* (the first issue of VERTIC's yearbook) to the senders of the first 10 replies.

Trust & Verify is edited and produced by Richard Guthrie with additional reporting by Philip McNab

© VERTIC 1992 ISSN 0966-9221

Trust & Verify

Trust & Verify is produced by VERTIC roughly 10 times a year. Anyone wishing to contribute information for inclusion in *Trust & Verify*, or to comment on its contents, should contact the VERTIC office.

Voluntary Subscriptions

The production of *Trust & Verify* entails considerable cost to VERTIC so we would welcome a subscription of £12 (individual) or £20 (organization) for a year's issues. Payments may be made by cheque or credit card. Thank you to those who have sent a subscription.

What is VERTIC?

VERTIC is an independent organization aiming to research and provide information on the role of verification technology and methods in present and future arms control and environmental agreements. VERTIC coordinates six working groups comprising 21 UK consultants and 11 overseas advisors. VERTIC is the major source of information on verification for scientists, policy makers and the press. VERTIC is funded primarily by grants from foundations and trusts and its independence is monitored by an Oversight and Advisory Committee.

8 John Adam Street
London WC2N 6EZ
Telephone 071 925 0867
Facsimile 071 925 0861

VERTIC
Verification Technology Information Centre