



# Trust and Verify

The Bulletin of the Verification Technology Information Centre

No. 36 March/April 1993

ISSN 0966-9221

**In this issue:**

- North Korea to withdraw from the NPT?
- South African nuclear weapons
- CWC Preparatory Commission

## North Korea and the NPT

On 12 March, North Korea informed the United Nations Security Council that it intended to withdraw from the Non-Proliferation Treaty. This the first time in the NPT's history that a state has made such a declaration.

The International Atomic Energy Agency had earlier demanded access to two undeclared facilities in North Korea under the special safeguards inspections rules. The IAEA believed that these facilities were relevant to North Korea's nuclear programme. Information released by the US Central Intelligence Agency indicated that one of the sites may hold waste from reprocessing.

Reprocessing capabilities are at the centre of the dispute. A plutonium sample given to the IAEA by the North Koreans had a isotopic content that was inconsistent with the stated time and method of separation. There are fears that the North Koreans have engaged in reprocessing work for up to twenty years and may have accumulated enough plutonium to make a nuclear weapon.

It seems likely that the IAEA's Board of Governors will take the matter to the UN Security Council. However, China, one of the 'Permanent Five' members of the Council has indicated that it opposes sanctions against North Korea and that it feels the matter has become unnecessarily escalated by the threat of special inspections and the US-South Korean 'Team Spirit' exercise.

Another viewpoint on the crisis is that the North Korean economy is in such chaos that sanctions may not have a significant effect. However, the crisis may be resolved through the use of economic aid to North Korea—which might even be the reason why that state manoeuvred into this situation.

## South African nuclear weapons

President de Klerk of South Africa has stated that his country had built six nuclear weapons but had since dismantled both the weapons and the military nuclear programme. Mr de Klerk denied that the anomalous event detected over the South Atlantic in 1979 was a nuclear test by his country.

The weapons appear to be based on uranium as no mention has been made of stocks of plutonium, nor of any reprocessing capabilities.

Suspicions have been raised that the South Africans may have co-operated on this programme with at least one other state. There have long been indications of

co-operation between South Africa and Israel in the field of high-technology weaponry.

The United States is apparently offering to purchase approximately 200 kg of highly-enriched uranium from South Africa's weapon programme to blend with natural uranium to create reactor-grade fuel, along the lines of the deal being agreed between the US and Russia [see below].

Ironically, if all the information released by the South Africans is correct, the country will have been the first state to dismantle a nuclear-weapon capability and declare its status as a non-nuclear-weapon state.

## CWC PrepCom

The Preparatory Commission (PrepCom) for the Organization for the Prohibition of Chemical Weapons (OPCW), established by the Chemical Weapons Convention, held its first meeting on 8-12 February in The Hague.

The PrepCom met behind closed doors, following a decision that plenary meetings should be held in private unless decided otherwise.

The position of Executive Secretary for the Provisional Technical Secretariat has been filled by Ian Kenyon, formerly of the British delegation to the Conference on Disarmament. He has proposed a series of senior management appointments, including his deputy and the leaders of the five divisions of the Secretariat. The senior positions are to be allocated such that all regions are represented.

Deputy Executive Secretary	vacant (Asia)
Administrative Division	Robert Howard (US)
External Relations Division	Serguei Batsanov (Russia)
Legal Division	Felix Calderon (Peru)
Technical Co-operation and Assistance Division	vacant (Africa)
Verification Division	John Gee (Australia)

## Working Groups

Two Working Groups were established by the PrepCom. Each is to look at major policy areas with the assistance of Experts' Groups as necessary.

Working Group A (Budget and Administration) tasks include drafting a work programme for the PrepCom's first year of operation; drafting the PrepCom's budget; drafting new rules of procedure for the PrepCom; and looking at the requirements for OPCW buildings and facilities. Working Group A is chaired by Alberto Villamizar of Colombia.

Working Group B (Verification and Technical Co-operation and Assistance) has not yet formally been convened. It will be chaired by Sylwin Gizowski of Poland.

The next plenary session of the PrepCom is to take place on 19-22 April. Later sessions have been



scheduled for 7-8 July, 20-23 September and 15-17 December.

The use of material provided by the Harvard-Sussex Program on CBW Armament and Arms Limitation in the preparation of this article is gratefully acknowledged.

### **CWC signatories**

The number of signatories to the CWC continues to increase. As of 29 March, 143 states had signed. The latest are Armenia, Kyrgyzstan, Nicaragua, Oman, Qatar and St. Lucia.

On 9 February, Mauritius became the second state, after Fiji, to ratify the CWC.

### **Sverdlovsk accident**

An outbreak of anthrax in early April 1979 in the Russian city of Sverdlovsk (now Ekaterinburg) had long been suspected to have been caused by an accident at a nearby military facility. Up to 68 people died from the disease.

The authorities of the USSR attributed the outbreak to an infected supply of meat. This was backed up by the release of some clinical samples which showed intestinal lesions consistent with this, although other evidence convinced some researchers that this was not the case. The Soviet authorities had, in the meantime, destroyed the autopsy reports.

In May 1992, Russian President Boris Yeltsin, acknowledged that the outbreak had been caused by a military accident. Yeltsin had been an official in the region that included Sverdlovsk at the time of the accident. It is not clear if he knew any details of the accident at the time, but it is clear he ordered a reinvestigation of the circumstances surrounding it in 1992.

A group of American scientists, organized by Matthew Meselson of Harvard University, visited the city in June 1992 and discovered that although the autopsy reports had been destroyed, many specimens, including some whole organs, had been preserved by local pathologists. The specimens gave clear indications that the anthrax spores had been inhaled. The results of this research are written up in March edition of the *Proceedings of the National Academy of Sciences*. Further investigations are taking place.

### **US-Russian uranium deal**

As previously reported, the United States is to purchase 500 kg of highly-enriched uranium from the Russian Federation's military nuclear programme, although no price has yet been agreed.

Further negotiations have taken place and it would now seem that much of the blending to reduce the level of enrichment will now take place in Russia. Earlier plans had foreseen most, if not all, of the blending taking place in the US.

### **Nuclear testing — UK views**

As rumours abound about what form the Clinton Administration will pursue its obligation to start multilateral negotiations for a comprehensive nuclear test ban, the British position appears less resolutely opposed to such a measure than it has been in the recent past.

The British Prime Minister, John Major, was asked in Parliament on 22 March about 'the possible contribution of a comprehensive test ban treaty towards nuclear non-proliferation.' The Prime Minister responded: 'A comprehensive test ban would not in itself prevent a proliferator from producing and deploying a crude

nuclear weapon without recourse to testing, and from obtaining materials with which to do this. But associated measures for verification and inspection, if sufficiently rigorous, and applicable to the states concerned, might constrain potential proliferations.' He went on to say: 'We support the ultimate goal of a comprehensive test ban.'

Douglas Hogg, Minister of State at the Foreign & Commonwealth Office, said on 2 April 'The Government's view is that we need to retain nuclear weapons, albeit in reduced numbers, and we need to ensure that they are safe. We must therefore review the case for testing against that requirement. It is also true that a comprehensive test ban has remained the British Government's long-term objective. In concert with other nuclear countries, we are reflecting whether it might be possible to bring forward that long-term objective or to abbreviate the timetable in some other way.'

The Minister went on to say 'I can make no statement to the house other than to say that there has been a change in the international climate. Our long-term objective has been to subscribe to a comprehensive test ban treaty and we must now consider whether we can move more rapidly to the attainment of that policy.'

### **BW export controls**

In early March, the UK Foreign and Commonwealth Office held a seminar on export controls relating to biological weapons. The new export controls, which have been co-ordinated internationally through the Australia Group, cover the transfers of biological samples used in medical and veterinary research that were not previously subject to control.

One aspect of the seminar that caused controversy was a suggestion that one way to prevent the spread of weapons of mass destruction would be to limit the spread of 'intangible technologies' — the knowledge that people carry about in their heads.

At the seminar, the idea was floated that applications for study in the UK by students from abroad could be assessed through a voluntary arrangement. The clear impression given at this time was that this was an idea very much in its early stages.

However, two weeks later, a junior Minister in the Education Department told the House of Commons 'The Government are determined to block potential avenues for the proliferation of nuclear, chemical or biological weapons. We are discussing with representatives of the universities and colleges, which are responsible for the admission of students to courses, the most effective means of ensuring that postgraduate students and researchers from countries where there is a proliferation concern cannot gain access to relevant technologies through study or research in United Kingdom higher education.'

Rather ironically, an institution represented at the seminar was told that one of its programmes, which involves such a state, would be affected if such changes were to take place. The programme has just started and is funded by the Foreign and Commonwealth Office.

### **UNSCOM/IAEA companies list**

Many people have called for the United Nations Special Commission and the International Atomic Energy Agency to make public the list of companies known to have supplied Iraq with equipment or materials that assisted them in their efforts to acquire weapons of mass destruction.

Sources close to the inspectors have indicated that they are more interested in determining the full extent of the Iraqi procurement programme than in controversies over



individual companies. Furthermore, as many companies were unaware of the extent of their own involvement, they are more likely to co-operate with investigations if their connection is not made public.

## EC and export controls

The export controls for dual-use technologies that were hoped to be completed by 31 March now seem likely to not be completed before the change of EC Presidency at the end of June. Denmark, which currently holds the Presidency, has placed emphasis on this subject, but consensus has so far been elusive.

Part of the problem has been that of which state is responsible for export licensing when a company is primarily in one state but the goods have been manufactured in another. An early proposal had been to licence such a situation from the company's state, with 'consultation' with the manufacturing state. However, some states want this consultation formalised. This would, in effect, mean that two export licences would have to be issued. This is anathema to many in the EC who are trying to create a freer market.

Another disagreement has centred on a definition of the location of the final assembly of a product — it is clearly not just where the last coat of paint was applied or the last bolt fixed, but how far back should one go?

Sources indicate that the situation is not as bad as it seems, and certainly some states are confident that although some definitional problems have to be sorted out, they are confident no breaches of regulations are likely.

## British aid for Russia

Aid to the Russian Federation from the United Kingdom in the form of 250 nuclear warhead containers and 20 nuclear weapon transporters [see *Trust & Verify*, No. 33, November 1992] has not yet been delivered. They are still being manufactured and delivery is not expected to be completed before the end of 1994.

The transporters are to be based on the new 'Truck Cargo Heavy Duty Mark II' that entered UK service in 1992. These have so far had a series of breakdowns on British motorways. The containers are to be of a new design that is not used in the UK.

## Nuclear dumping meeting

On 1–5 February, a meeting on dumping in the Kara and the Barents Sea was held by the International Atomic Energy Agency, the Norwegian Radiation Protection Authority and the Federal Hydrometeorological Committee of Russia.

The meeting launched 'The International Arctic Seas Assessment Project (IASAP) 1993–95', which is designed to assess the impact of radioactive waste dumping in the Kara and Barents Seas by the Soviet Union and to consider any action to be taken.

## Scott Inquiry

The Director of Public Prosecutions has stated that Alan Clark, the former Minister whose testimony was at the centre of the collapse of the Matrix Churchill trial, will not be prosecuted.

Prosecution counsel in the trial, Alan Moses QC, had said that Clark's testimony in court was 'not consistent' with earlier statements he had made under oath. The former Minister has denied that there was any inconsistency. Mr Clark was not interviewed by the police.

Had charges been brought, the *sub judice* provisions of British law would have restricted reporting on the Matrix Churchill case and the Scott Inquiry.

## Greenhouse gases

The European Community environment ministers meeting in Brussels on 22 March 1992 agreed to establish a monitoring mechanism for Community carbon dioxide and other greenhouse gas emissions.

The agreement obliges member states to publish and implement national programmes for limiting their anthropogenic carbon dioxide emissions, as they are already obliged to do under the Climate Convention. It also reiterates the EC aim of stabilising carbon dioxide emissions at 1990 levels by the year 2000 — but only if other leading countries make similar undertakings.

However, the agreement does set up, in outline, a mechanism for reviewing implementation of national and EC emission limitation policies which could form the basis for a more thorough monitoring and verification regime.

The ministers also agreed to ratify the Climate Convention by the end of the year, in line with an existing promise made by the Community.

No agreement was reached on the Commission proposals for a carbon tax.

## Intergovernmental Negotiating Committee on Climate Change

The Intergovernmental Negotiating Committee (Working Group 1 — financial, legal and institutions) met in the week of March 15 to 21 in New York but many delegates were unable to attend owing to the unusually inclement weather conditions prevailing in the US at the time.

The next meeting will be in Geneva from 16 to 27 August when both Working Groups will meet and WG2 will discuss methodologies. After the unusually fine weather at the last Geneva meeting in December, and the unusually foul weather in New York in March, perhaps the Committee should begin to consider more substantial commitments to emission reductions.

## Intergovernmental Panel on Climate Change

The Intergovernmental Panel on Climate Change (IPCC) met in Amersfoort (Netherlands) in February to consider methane emissions. On 28 January the UK Watt Committee had reported on the same topic. The consensus at both meetings was that the measurement of certain sources, notably landfill sites, remained difficult and subject to a considerable degree of error. At the Watt Committee meeting the official estimate of the UK methane emissions from landfill changed by 100% during the meeting.

## Commission on Sustainable Development

The first session of the Commission on Sustainable Development (CSD) will be in New York on 14 to 25 June 1993. NGOs with Category I, II or Roster status with ECOSOC will be eligible to take part, as will those accredited to UNCED if they confirm that they wish to be represented before 15 April 1993. Other NGOs can apply for representation by writing to:

The United Nations Secretariat  
ECOSOC/NGO Unit, Room DC-2 2340  
New York, N.Y. 10017, USA



## UNCED Follow up in the UK

The United Nations Association has become the secretariat of the UN Environment and Development Committee in the UK. The UNED will take over much of the work previously done by UNEP-UK. For further details contact Felix Dodds at the UNA in London.

Global Forum 93 mentioned in the last edition of *Trust & Verify* has become Global Forum 94. It will still be held in Manchester but in June 1994. The UK government conference Partnerships for Change will proceed as planned and will be in Manchester this September.

## Lessons from forensic science

There is much that verification technologists can learn from forensic sciences used in law enforcement.

A salutary tale is told in the letters page of the *New Scientist*, of how contamination may occur in the most unexpected of ways. The writer, who did not wish to be identified, was referring to convictions, subsequently overturned, involving alleged terrorist activities, for which forensic evidence had been given in court indicating the accused had handled explosives.

The writer uses a nitroglycerine-based spray as a medicine. Contamination with nitroglycerine of the user and of people close to him/her is inevitable. The writer sent an instruction sheet for the spray to the magazine's office with a warning — 'the sheet is almost certainly contaminated, so wash carefully before shaking hands with a policeman.'

## Comments from readers

A reader has sent in a note regarding the item on the Iraqi memorandum that appeared in the last *Trust & Verify*. The reader points out, correctly, that a memo on similar lines could be sent around certain sections of the US military without any suspicion that the BWC had been breached, as certain units retained BW materials for research purposes not prohibited by the BWC. The note also points out that the story of this memo has been resurfacing periodically over the last few years.

*Trust & Verify* was illustrating that Middle East Watch had found the memo of significance in the work it was doing. In the absence of a credible explanation of this memo by the Iraqi authorities, it may resurface many times in the future.

## VERTIC News

### VERTIC funding

VERTIC has received funding from the Polden-Puckham Charitable Foundation in support of John Lanchbery's work on the verification of the Climate Change Convention.

### Article on North Korea

VERTIC Director, Dr Patricia Lewis, was the author of a comment article in the *International Herald Tribune* of 31 March. The article, entitled 'A Little Carrot Could Go a Long Way', calls for the use of economic inducements to encourage North Korea to accept challenge inspections and stay in the NPT, and questions the threat of military action against that state as it then gives nuclear weapons 'a power they do not really possess'.

*Trust & Verify* is edited and produced by Richard Guthrie with additional reporting by John Lanchbery and Philip McNab  
© VERTIC 1993

### Trust & Verify

*Trust & Verify* is produced by VERTIC 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.

8 John Adam Street

London WC2N 6EZ

Telephone 071 925 0867

Facsimile 071 925 0861

### 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 co-ordinates 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.

**VERTIC**

Verification Technology Information Centre