

The honourable Pieter de Savornin Lohman, Permanent Representative for the OPCW:

## 'As host country we are very proud of TNO'

The *Organization for the Prohibition of Chemical Weapons* (OPCW) is a remarkable international success. The treaty to ban chemical weapons has been broadly ratified and countries with chemical weapons are making good progress in destroying them. However, we do need to develop and test small quantities of 'weapon-hazardous chemicals' as protective products against chemical weapons attacks. The TNO lab for Biological and Chemical Protection in Rijswijk is one of a few laboratories in the world allowed to produce these substances. This year the honour fell to this lab to develop the proficiency test for the other designated laboratories.



'Negotiations were ongoing for decades before the CW treaty finally became fact. The use of chemical weapons in the Iran-Iraq war accelerated the negotiation process such that the treaty has been in effect since 1993. While North Korea, Israel, Egypt, Syria, Somalia, Angola and Myanmar have still to sign up to the treaty, it has still been a formidable success. The rest of the world has accepted the sweeping consequences: a total ban worldwide and a corresponding stringent verification regime.

'The treaty stipulates that existing chemical weapons must be destroyed before 29 April 2012 and the chemical industry will be monitored. Despite the high costs involved, the destruction of the gigantic stock of chemical weapons in Russia and the US, where supervision is strict, is going smoothly. Countries with much smaller stocks, like India and Albania, have already completed the destruction. It all makes the world that bit safer.

'Not all the world's chemical companies have to undergo equally strict monitoring – that would simply not be feasible. There is a distinction between agents that are virtually exclusive to making chemical weapons, substances that can be used partially for the production of chemical weapons and the rest.'

#### ACTIVE ROLE

'The Netherlands has opted to take an active role in international peace and safety. Hosting the OPCW, which is situated in The Hague, fits such a role. For most countries the ambassadors are simultaneously accredited ambassadors at the OPCW, though a few countries have separate OPCW ambassadors. The Netherlands has no foreign representation in its own country of course, so as permanent ambassador I am one of those in the separate group. There is much at stake. We are constantly working to improve verification, to convince the remaining seven countries to ratify the treaty and to monitor the process of destruction.

'TNO is involved in the OPCW on several levels. The TNO lab in Rijswijk synthesises small quantities of hazardous agents, for instance to test gas masks and protective clothing and for medical research. Worldwide there are less than thirty labs that are

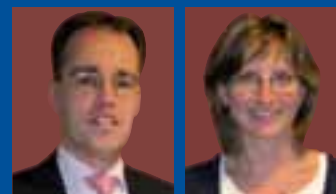
allowed to use these very risky substances. Those labs have to regularly undergo intensive inspection by OPCW inspectors to obtain a statement of no objection in order to use the category of most severe substances.'

#### WORLD TOP

'In addition, they also have to participate annually in a proficiency test, a recurring examination to demonstrate the quality to be an 'OPCW designated' lab. Every time TNO scores 'excellent' in the analysis of samples it receives for the test. Just a handful of labs can make such a claim. This year TNO has produced the samples that the other labs have to analyse. Only labs that have previously and consistently scored 'very good' in tests are eligible to act as examiner; which, of course, means that you automatically qualify yourself. Moreover, you have to be able as a laboratory to make fully stable samples. I am no chemist myself but I understand that this is no picnic.

'TNO is both passively and actively involved in the OPCW, its experts regularly acting as advisors in technical working groups and as advisors in other countries training a total of around 180 OPCW inspectors. For the Netherlands, it is good to have a top quality laboratory that has such an international reputation. In fact, TNO is among the world's elite, something that contributes to our stature as host nation; we are very proud of this in all honesty.'

*The honourable Pieter de Savornin Lohman is the Permanent Representative, Dutch Ambassador at the OPCW.*



#### The TNO expertise

Paul Vierveijzer, business developer and Helma Spruit, project leader

'To be able to work with the so-called schedule 1 compounds, you have to be able to prove as a laboratory that you can handle them well. We are allowed to use these substances, whose sole purpose virtually is to make chemical weapons, for protective purposes. This means that we produce them on a very small scale in a controlled environment in our high-toxicology lab so that we can test gas masks, protective clothing and detectors, as well as evaluation of medical countermeasures, for the Dutch Ministry of Defence, diverse *first responders* like the fire brigade and the police, and manufacturers of such protective resources from all over the world. Various other labs have us synthesise the substances being investigated. Our safety and warning system ensures that the lab is safe in its environment. The OPCW inspection to extend the statement of no objection is, moreover, tough and intensive. You have to present the inspectors with a conclusive substances bookkeeping and the inspectors spend around a week examining the entire lab to ascertain whether everything is in line with the regulations stipulated in the treaty. Each year we undergo as *designated laboratory* the *proficiency test*: we receive samples of an unknown composition made by one of the other labs. Within a certain time we have to be able to establish which chemical agents are present. The analysis has to be both full and fully correct. The score varies from A (good) to F (poor). Since the start in 2003 TNO has always scored A – with just one B. This score puts us in the world's top five high-toxicology labs.'

#### The organisation

The Organization for the Prohibition of Chemical Weapons (OPCW) in The Hague is the executor of the international treaty on the banning of chemical weapons. Since 1993, 188 countries have signed up against the development, production, possession and use of chemical weapons in the world. Seven countries still refuse to sign up to the treaty; the OPCW is trying to convince them otherwise. The organisation, with five hundred staff, including nearly two hundred inspectors, monitors the destruction of existing chemical weapons and inspects chemical plants where chemical weapons could potentially be produced.