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National Dialogue Forum : Russian Implementation of the Convention on the Prohibition of Chemical Weapons

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NATIONAL DIALOGUE FORUM

Russian Implementation of the Convention
on the Prohibition of Chemical Weapons:
Status and Perspectives as of Year End 2006

Moscow
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УДК
ББК

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This collection of presentations, lectures, and speeches is from the eighth public forum-dialogue on "The Implementation by Russia of the Convention on the Prohibition of Chemical Weapons: Status and Perspectives at the End of 2006". This conference was organized and chaired by Green Cross Russia on November 1-2, 2006 in Moscow on the occasion of the ninth anniversary of Russian ratification of the international Chemical Weapons Convention.

Participating in the conference were representatives from Russian regions where chemical weapons are stored and demilitarized; representatives of federal ministries and agencies; Russian citizens; and other Russian organizations involved with the Federal Program for destruction of chemical weapons.

Also participating were representatives from other countries involved in the Global Partnership for destruction of weapons of mass destruction in the Russian Federation.

The conference organizers would like to express appreciation to the governments of The Netherlands, Switzerland, Finland, the United Kingdom, Canada, the U.S. charitable foundation "Trust for Mutual Understanding" and Parsons Global Services Inc., all of whom provided financial support for this undertaking.

The texts of these presentations, collected here in this volume, are the responsibility of the individual authors.

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FOREWORD

In the light of the growing threat of terrorism the problem of international security becomes of principal importance. Russia should speed up its actions due to the Chemical Weapon Convention execution. There should be no gram of chemicals agents which could be used against the mankind.

Putting into operation the third CWD facility in Mirnii village, Kirov region in September, 2006 shows that Russia carries out its commitments to the world community in order to destroy chemical agents. The CWD facility in Gornii village, Saratov region, which had been put into operation in December, 2002 has already coped with its tasks and destroyed all its chemical weapon stocks. Currently there had been destroyed more than 1,700 tons of chemical weapon in Kambarka, Kirov region, and had been held detoxication of more than 2,000 tons of chemical agents at the "Maradikovo" facility in Kirov region. It's about 13% of the whole stock of chemical weapon in Russia, which is equal to 40,000 tons.

Such figures sounded at the National Forum-Dialog "Chemical weapon convention execution in Russia: the state and the prospects on by the end of 2006 year", organized by Green Cross together with Federal Agency on Industry, held in Moscow on the 1st and 2nd of November, 2006.

There participated the heads of local administrations, people living on the territories, where chemical weapon is stored and destroyed, local authorities, federal agencies, also the representatives of foreign governments, which finance the CWD programme in Russia – about 150 specialists from 10 countries in total.

The president of Green Cross Russia S.Baranovskii marked that in the recent years "the work becomes similar to a real dialog" because "the state carries on a non-stop dialogue with population, which is one of the most important purposes of such Forum-dialogues". Such way of work positively influences the process of chemical weapon destruction. S.Baranovskii said he hopes that the wide experience in CW destruction will be applied to the nuclear weapon destruction.

Press-service of Green Cross Russia

Russia's implementation of the CWC: conditions and prospects by the end of 2006



***S. Baranovsky,
President Green Cross Russia***

I am very pleased to represent Green Cross which many years ago came up with an absolutely new idea for post-Soviet society – an annual conference in Moscow on chemical weapons destruction. We wanted to implement this idea by annually bringing together four segments of society involved in the implementation of the Chemical Weapons Convention.

First of all, our forum-dialogue includes representatives of citizens inhabiting the chemical weapons stockpile and destruction regions. There are currently three regions which have recently become the sites for chemical weapons destruction. People that live close to these three arsenals as well as future chemical weapons destruction facilities are concerned with what is going to be done and how. We need to listen to these people, give them an opportunity to participate in the decision-making process, and allow them to be involved in this process.

So, the first sector of society is the local population including heads of small towns and settlements located near the chemical weapons arsenals.

A second segment of society includes regional authorities, local legislative authorities of the federation units – republics and oblasts. The governor or president of a republic, its employees and mass media representatives, and the population of the region are all concerned with the current situation, emerging problems, and future perspectives for chemical demilitarization.

The third sector of society which we include is perhaps the most important one. It includes those federal agencies that work on implementation of the Chemical Weapons Convention: planning, construction, and operations of chemical weapons destruction facil-

ities. There are many such agencies in our country. It includes not only the Federal Agency for Industry or, as it was previously called, the Ministry of Defense department which was responsible for this problem. Additional agencies are the Ministry of Ecology, now called the Ministry of Natural Resources, and its departments that work on natural resources exploitation and environmental protection; also the Ministry of Public Health, Ministry of Finance, Ministry of Economy, and many other agencies including the Ministry on Emergency Situations. They all carry out varied and interrelated responsibilities for the disarmament process.

Our task consists of establishing civilian control and providing these agencies with an opportunity to be in dialogue with the population and civic society. There is a civic society emerging in our country, and a large number of public organizations that also participate in the disarmament process. Our forum has become a dialogue because government and officials are involved in constant dialogue with the population and civic society; productive dialogue is one of the main tasks of our forum.

It is important to highlight that there exists a fourth segment in society, without which the successful implementation of the Chemical Weapons Convention obligations would be impossible. It is the international community which insisted on this political ratification decision and has already reassured our government and State Duma during the ratification of Convention in 1997 that it would assist and take part in this process. In fact, the world community fervently wanted to participate in Russian chemical weapons destruction.

We also know about Kananaskis, about establishment of the Global Partnership in which some 22 states now take part to varying degrees in helping realize the chemical weapons destruction program. We are pleased that representatives of these countries will present their reports today, and they will have a chance to meet not only with the heads of our federal agencies that implement the Convention requirements, but also with regional representatives, and most important, with people living near the stockpiles and chemical weapons destruction facilities.

So, we have been successful in organizing this annual meeting eight times already, a very good success story. That is why I greet

all those people who have had an opportunity to attend today, to take part, present their messages and reports, to discuss, and, in general, to participate in this important process.

I am very grateful to Viktor Ivanovich Kholstov who always kindly responds to our invitations and is the chief person responsible for chemical disarmament in our country. He always finds it possible to participate in our forum-dialogue, to make a presentation, and to respond to questions; this significantly facilitates the flow of cooperation between civic society and authorities in resolving such a difficult issue.

Today we are holding our eighth forum-dialogue and it has already "given birth" to some offspring. "The first child" was born in the Kirov Oblast this year where we have conducted our first regional forum-dialogue. This meeting was held less than a month ago in the Kirov Oblast with the active participation of Kirov Oblast officials, the Federal Agency for Industry, and also local public organizations, including those for and "not so much for" chemical disarmament. All the participants had a chance to express their opinions in a full civic dialogue, and now we are sure that we need not only the centralized, international forum-dialogue but also regional ones as well. We are planning to organize such regional forums in the Bryansk Oblast, the Penza Oblast, and other key regions. Such forums have a right to exist everywhere. As Mikhail Sergeevich Gorbachev, the Chairman of Green Cross International, says: "the process has been launched." The process will continue, and we will have certain achievements as well.

Recently, at the end of this year, we opened a third, very important facility that will work on destruction of a new class of military poison substances. Before that we were dealing with lewisite and mustard – blister agents, and currently we are working with phosphor-organic substances – newer nerve agents. It is a big step forward for Russian chemical demilitarization. It provides us some optimism that the Russian Federation will fulfill its obligations under the Chemical Weapons Convention, and I'm talking about the upcoming 20% destruction deadline only, but everything appears now to be going in the right direction.

To sum up, I would like to thank the representatives of those countries without which our forum-dialogue would not be possible.

First of all, it is the Swiss Confederation – a pioneer in the international community which was the first to help us, both in carrying out public hearings in our country, and in financially supporting our first forum which has now become a dialogue. Other supporters include the Netherlands, Canada, Finland, Great Britain, the United States of America, and, of course, the Russian Federation represented by its federal agencies; they have all taken part in preparation and organization of the forum-dialogue.

Thanks to all those who support us; I hope that this club will continue to grow every year. Two years ago I invited Canada, which agreed to join the club and support our forum-dialogue. One more time, I am greeting everybody.

Now let's start our work for the next two days. As a first step, I am turning the podium over to Viktor Ivanovich Kholostov to make a presentation to our forum today.

**Providing operations safety
at chemical weapons destruction facilities
in the Russian Federation**



***V. Kholstov,
Deputy Director Federal
Agency for Industry***

I am glad to see representatives of Russian and foreign civil society and government officials gathered here today to discuss key modern issues such as making our planet clean and safe. A major issue of discussion today is how to provide safety conditions for the people living in the proximity of weapons of mass destruction stockpiles and destruction facilities. Discussing and solving these issues will reassure all of us for the future.

Of course, one of these issues is related to chemical weapons destruction. It affects the population at all levels and is the center of public attention both in Russia and abroad. Providing safety for the population is a requirement under the Chemical Weapons Convention.

The following principles are an integral part of chemical weapons destruction at Russian facilities and are regulated by legislative and legal norms:

- Guaranteeing the health and life of citizens, protecting the environment, and making sure that chemical weapons destruction (CWD) efforts will have no negative effects on public health and the environment;
- Stockpile, transportation and destruction works are regulated through government licensing and permitting;
- Mandatory and continuous monitoring of the environment and of the health of the population living in emergency planning zones around CWD stockpile and destruction facilities;
- Maintaining sanitary and hygienic, environmental and other standards, norms and rules;
- Mandatory federal sanitary-hygienic and environmental norms regarding the acquisition and use of technologies, construction materi-

als, and the operations of CWD facilities, their destruction or conversion to other use; and

- Mandatory government control regarding the performance of other kinds of work related to chemical weapons destruction.

Providing safety at chemical weapons destruction facilities (CWDFs) is the basis for Russian federal policy in this area. CWDF safety is achieved through the following directions:

- Provide safety of chemical weapons stockpiles; use the industrial environmental monitoring system; and monitor the health of people living in the emergency planning zones and of the staff working at CW stockpile and destruction facilities.

- Implement safe technologies for chemical weapons destruction.

- Use oversight by corresponding authorities such as the: Rostekhnadzor, Federal Medical-Biological Agency, Rospotrebnadzor, and Rosprirodnadzor.

The Federal authorities also regularly evaluate the state of the stockpiled munitions filled with chemical agents. This is a thorough process that is conducted to eliminate all risks for accidents. Munitions that are found to be prone to accidents (i.e. those with unsealed bodies) are removed, isolated, and destroyed separately under the supervision of OPCW inspectors.

The process of safe elimination of chemical weapons destruction is closely overseen from the highest to the lowest levels of government. The President, the prime minister and his/her government, the Safety Council, the State Commission on Chemical Disarmament, and other federal, regional and local level authorities all play a part. This whole system has been set up under the framework of the Federal Chemical Weapons Destruction Program.

Industrial environmental monitoring is a major component of that system. It has three subsystems. The first subsystem collects and processes information. It is implemented at the CWDF and includes an informational-analytical center and chemical-analytical laboratories. Information gathering to understand the level of safety happens at the CWDF. It represents a sort of a brain center of the whole system connected with the CWDF.

The second subsystem allows for automatic monitoring of poisonous substances and other possible pollutants in the working and industrial areas of the CWDF. The ventilation system is also tightly controlled

in order to avoid any accidental leakage to the outside environment. The good functioning of this subsystem guarantees the safety of the CWD industrial zone. The presence of a monitoring system in the industrial zone allows for better and faster response in case of some variations in the technological process.

The purpose of the third subsystem is for the automatic control in the sanitary-protection and the emergency planning zones, including civilian settlements and territories. The stationary monitoring system and mobile laboratories can alert one to the presence of hazardous substances in air, water, and soil.

The process of government control and monitoring systems during CWD in the Russian Federation has acquired now some experience and has proved its high effectiveness. Such a subsystem was initially used at the Gorny CWDF and settlements in the Saratov Oblast. Germany provided aid in creating the environmental monitoring system through delivery of a mobile means of monitoring and sample analysis. Similar government-run environmental monitoring systems have been installed at the Kambarka (Udmurt Republic) and Maradykovskiy (Kirov Oblast) CWDFs. Today, a similar system at the Shchuch'ye (Kurgan Oblast) CWDF is almost ready. It was set up with the help of the French government under auspices of the French-Russian bilateral agreement. The project is in its final preparatory stages. At Shchuch'ye, a sanitary-hygienic monitoring system in the emergency planning zone has also been set up with the help of the Swiss government.

This is a good occasion to express my gratitude to all governments assisting the Russian Federation in the difficult task of chemical weapons destruction. The problem is that a large amount of money is needed in a very short period of time. The cost of the Federal CWD Program is estimated at \$7 billion. The main part of that amount should be allocated within the next three years when all CWDFs will be constructed and will start agent destruction. I would like to express my gratitude to the governments of the United States, Canada, Germany, France, Switzerland, Italy, Great Britain, Norway, the Czech Republic, Ireland, Belgium, Sweden, The Netherlands, New Zealand, Poland, Finland, the European Union, and the Nuclear Threat Initiative (USA) that all make their contribution to the process of chemical weapons destruction in Russia.

Health monitoring of the people living in the emergency planning zones around CWDFs consists of a complex process and is one of the main objectives under the Federal Chemical Weapons Destruction Program. A whole range of activities is being carried out before and during chemical weapons destruction:

1. Having a complete medical check-up of people living and working in the emergency planning zones, including children, carried out by specialists from the Federal Medical-Biological Agency.

2. Having complete medical-sanitary monitoring of territories in the emergency planning zones carried out by the Federal service for protecting citizens' rights and public health.

3. Building a diagnostic and consultation polyclinic in settlements around Gorny, Shchuch'ye, and Kambarka. This year we plan to launch a similar clinic at Maradykovskiy, Leonidovka (Penza Oblast), and in Pochep (Bryansk Oblast).

4. Medical preventive check-ups and rehabilitation have been provided to the staff and workers at CWDFs in order to avoid or reduce the level of any professionally-incurred disease.

5. Gossanepidnadzor medical-sanitary centers of the Federal Medical-Biological Agency have been prepared, while medical personnel training has already been carried out.

6. Clinical departments of scientific-research institutions of the Federal Medical-Biological Agency have been equipped with modern equipment and tools. Sixty-five million Russian rubles were allocated for this task within the framework of the federal program in 2005. In the year 2006 the amount allocated was raised to 71 million rubles.

In the 2001-2006 period, elements of the Federal Medical-Biological Agency, namely the Scientific-Research Institute for Human Hygiene, Professional Pathology and Ecology (from Saint-Petersburg), the Scientific-Research Institute of Hygiene, Professional Pathology and Ecology (from Volgograd), and the Children's Hospital № 38 (from Moscow) have conducted a complex medical-sanitary check-up of people living in the emergency planning zones at Gorny, Shchuch'ye, and Maradykovskiy. Check-ups of children have been carried out in Shchuch'ye, and also in the Bryansk, Kirov, and Penza Oblasts. Support is planned for the 2007-2009 period to continue medical check-ups of the population and facility personnel living in emergency planning zones.

In addition, the destruction technology used is safe, reliable and highly effective, as estimated by many experts from all sides. The main demands for the technology were safety and environmental protection. They have been developed by the Federal Agency for Industry's State Scientific-Research Institute of Organic Chemistry and Technology (Moscow).

These technologies work by neutralizing the poisonous substances with different chemical reagents during the first stage. This neutralization is carried out at low temperatures. So, if at Gorny and Kambarka the destruction process is carried out at the temperature close to 100 degrees of Celsius, at Maradykovsky, it is carried out under normal conditions. During that process, highly poisonous agents are transformed in substances that can no longer be used in chemical weapons. The low-temperature technological process makes the entire CWD process less dangerous compared to other technologies. Destruction of the reaction mass, of the munitions themselves, and of everything that came in contact with the chemical agent is conducted in a second stage.

I have to mention that the advantages of Russian technology were proved at Gorny, where no accidents related to the technological destruction process happened during operations there. Today, the safety of technology is confirmed by its well-functioning at Kambarka and Maradykovsky CWDFs.

In fact, Russian destruction technology, including that for the destruction of organophosphorous agents, passed not only experimental testing with real chemical agent samples, but also international inspections. I would like to underline in particular, the 1995 Russian-American joint investigation intended to estimate the extent of destruction of nerve agents. The results of that experiment confirmed that we have made the right choice in selecting this two-stage technology.

I would like to mention that notwithstanding the detailed control of technologies used at CWD facilities, we pay huge attention to the quality of facility and destruction line construction. None of the CWD facilities can start a technological cycle of CW destruction without testing equipment in neutral and real environments. The test period is carried out at initial stages with the complex testing of technological equipment in inert settings. The second stage includes the testing of

technological equipment in real settings. The third stage is the full-scale chemical weapons destruction.

The year 2006 was a major year for chemical weapons destruction in Russia due mainly to the starting of operations at two CWDFs. An official opening ceremony at Kambarka was held on 1 March 2006 while the official opening ceremony at Maradykovsky was held on 8 September 2006.

I would like to note that major attention is paid in the Russian Federation to providing safety during the entire process of chemical weapons stockpiling and destruction. Eight hundred million rubles in 2006, or 5% of the money allocated from the federal budget, are spent on providing safety of chemical weapons stockpiling and destruction processes, medical-sanitary provisions, and environmental control and monitoring. Also, we should add to that the amount invested in the construction of the diagnostic-consultation medical centers, and in safe technological CWD solutions.

To date, all the chemical agent at Gorny has been destroyed (1,143.2 tons). More than 1,700 tons of chemical agents were destroyed at Kambarka, and neutralization of 2,000 tons of chemical agent has taken place at Maradykovsky.

In total, around 13% of Russian chemical weapons have been destroyed and neutralized. We are heading towards fulfilling the 20% deadline (or 8,000 tons in the case of the Russian Federation) required by the Chemical Weapons Convention. I would like to highlight one more time that all the CWD work in the Russian Federation is carried out under the control of the Technical Secretariat of the Organization for the Prohibition of Chemical Weapons.

**Existing challenges
for the global partnership on nonproliferation
of weapons of mass destruction**



***N. Kalinina,
Deputy Director of Inspection Audit
Chamber of the Russian Federation***

Ladies and gentlemen, I am glad to see so many familiar faces. I could not attend the forum yesterday, but I am sure all went as well as it did last year. It is a pleasure to see at this now regular forum so many well-known experts and so many representatives from the many countries that genuinely want to help Russia to accomplish its chemical weapons destruction program.

If any of you remember my intervention during the last dialogue, I spoke from a Global Partnership point of view which I would like to continue to do during this forum. I would like to emphasize several issues.

As you all know, Russia chaired the G-8 and hosted a summit in Saint Petersburg in July 2006. At this G-8 summit, which has become annual since 2002, the field of chemical weapons nonproliferation was addressed. At the Saint Petersburg meeting, the G-8 leaders confirmed their support for Russia to attain the priorities mentioned at Kananaskis in 2002 for chemical weapons destruction and nuclear submarine dismantlement. Now what has happened over the last four years?

First, as mentioned in previous reports, Russia takes very seriously its obligations under the Chemical Weapons Convention, and to eliminate this huge environmental hazard of outdated nuclear submarines from its Russian naval forces, and is increasing the rates of their destruction. When the Global Partnership was created at Kananaskis in 2002, there were 197 such submarines. Today, only 94 remain. Large support is provided not only by G-8 countries, but also by other countries that have more recently joined in this effort. I would like to pro-

vide two figures: Out of all the money provided in the last four years for submarine dismantlement, 73% was provided by the G-8 and other countries. This is a huge amount, and because of it, we have had impressive results in their dismantlement. Today, I can assure you that the environmental threat caused by the poor state of most nuclear submarines still containing nuclear fuel is almost zero, even under the conditions when these submarines have been scrapped. Sixty-one submarines were dismantled during the mid-2002 – mid-2006 period, 17 nuclear submarines with foreign money, and 44 at Russian expense. The aid amount pledged by 11 foreign partners is 1.415 billion dollars, the actual contractual amount is 438.5 million dollars, and the actual financed amount is 313.4 million dollars. This represents 71.5% of the contract liabilities and 22.1% of the pledged amount. Russia has provided 241.5 million dollars, approximately 77% of the international aid volume. If international cooperation continues to increase at such a pace, Russia will be able to destroy all its nuclear submarines by the end of 2010.

If we compare the achievements of Russian chemical weapons destruction to the achievements of nuclear submarine destruction, the situation is not that encouraging regarding the amount of international aid or the results. I have to admit, unfortunately, that, as of last year, there is a lot of room for improvement in the amount of aid offered by the international community. From 1992 to 2002, the international community pledged 377 million dollars in aid as part of bilateral and other forms of agreement. However, only 139 million dollars (36.9% of the pledged amount) was provided to Russia. Since the creation of the Global Partnership, from June 2002 to October 2006, the international pledge for chemical weapons was 1.650 billion dollars, of which only 298 million, or 18% of the pledged amount, was disbursed.

One can sadly notice from these figures that the Global Partnership has disbursed less than 20% of its pledged amount, which is even a smaller percentage of the given / pledged ratio before the launch of the GP. In 2005, Russia was forced under these circumstances to make changes to the Federal Chemical Weapons Destruction Program for the third time, which will probably not be the last time. There were changes made in the conceptual framework of work and a significant increase in the Russian federal budget.

So, if the CWD program cost in 2001 was 92.7 billion rubles (\$3.18 billion dollars, for an average exchange rate of 29.15 RUR:\$1), the program cost in 2005 jumped to 194.53 billion RUR (\$6.85 billion, at an exchange rate of 28.4 RUR:\$1). Of this amount, 160.36 billion RUR (\$5.65 billion, at an exchange rate of 28.4 RUR:\$1) came from the Russian federal budget. Therefore, the cost for the CWD program doubled over a 4-year period.

Moreover, when faced with this non-compliance of financial obligations by GP partners, and with the necessity to complete destruction of all CW by April 2012, Russia had to once again reconsider and lower (compared with initial 2002-2003 plans) its planning assumptions for the volume of foreign financial support. Updated project proposals were circulated among all member states of the Executive Council of the Organization for the Prohibition of Chemical Weapons in September 2005.

The amount of pledges under the GP for all seven CWD facilities consists of 1.2 billion Euros. It is important for Russia to receive this money by the middle of 2008, which represents the deadline for starting destruction operations at all the CWDFs. Russia itself continues to increase its financial support for CWD. While in 2006 this support measured 18 billion rubles, 26 billion rubles (or about \$1 billion) will be allocated in 2007.

Let me remind you that, at the moment, only three CWDFs out of seven are under construction – facilities in Gorny, Kambarka, and Shchuch'ye. Two of them are largely financed by Germany, with smaller financial support from the European Union, Switzerland, The Netherlands, and Poland.

I am concerned about the fourth CWDF where construction has not yet started. I am referring to the Pochep facility in the Bryansk Oblast. Although a memorandum of understanding was signed with Italy in November 2003, it has not yet entered into force. Italy has agreed to allocate 360 million Euros for its construction over a 5-year contractual period ending in November 2008. This delay in construction will not allow for its scheduled launch in the middle of 2008, which will prevent the destruction of 18.8% of Russian chemical weapons, and will make Russia non-compliant under the Chemical Weapons Convention.

There is also a very worrisome financial and organizational situation at the Shchuch'ye facility, which is built with American assistance.

Although today eight additional countries have joined in this process, there is a threat of delay.

In addition, there are many other reasons to worry about not meeting the CWC deadline of April 29, 2012. In regards to that, I would like to note that it is time for the international community to think about how to save this unique international agreement from unraveling. We have not announced that Russia will not fulfill its obligations under the Convention. Most likely, despite all the difficulties and challenges it faces, Russia will make all the necessary efforts to comply with the CWC, which is proven by the following fact that Russia presented a concise GP accomplishments-to-date report to G-8 members during the 2006 summit.

I will remind you that Russia announced its allocation of 2 billion dollars within the framework of the Global Partnership for two purposes only: chemical weapons destruction and dismantlement of nuclear submarines. Based on 2006 numbers, Russian financial assistance was to be 1.94 billion dollars. This means that Russia has fulfilled its obligations under the Global Partnership, and is continuing to raise the amount of its financial assistance. That is only one example of what Russia is doing in order not to violate this unique CWC international agreement.

Another example in this context is the September 2006 opening ceremony of the Maradykovsky CWD facility. The unique character of this event is the record-breaking timeframe in which it has been built and become operational, all done with Russian money, and with no international assistance. It proves, one more time, that Russia is doing its best to fulfill its obligations.

I would like to return to the Chemical Weapons Convention, and its worrisome direction. Next year will represent ten years since the Convention entered into force. As initially envisioned, global elimination of chemical weapons should have been achieved by next year. However, as we can see, the situation is far from meeting that initial deadline.

The following current possessor states: the Russian Federation, the United States, India, Libya, and Albania have all asked the OPCW for a deadline extension from 29 April 2007 to 29 April 2012. Therefore, if initially everybody was worried about Russia not being able to meet its deadlines, now all these countries will not meet their 2007 deadline. Why is that? In regards to Russia, the situation was

clear from the very beginning. Russia decided to join the Convention while going through an economic crisis and a regime change. It was a period when economics, politics, and even moral character were shattered. However, some other chemical weapon possessor countries found other "circumstances", and therefore, it has been impossible to achieve the main goal of the CWC, and to eliminate an entire category of weapons in a decade.

If we are to talk about fulfilling some other CWC obligations, there is something else to think about. The Convention has not yet achieved universality, and there are still some countries that have not signed, while others that have signed but not ratified. It means that universal adherence to the Convention, which is one of its main purposes, is still to be achieved. Should the international community do something about that? I think so. We should not allow this unique agreement to fail. I wish that today's forum and the 10th anniversary celebration forum will address these issues.

One last issue I would like to underline relates to chemical weapons destruction and has not been addressed at such forums. I am talking about chemical weapons in the Baltic Sea. Let me remind you that in 1946, at the Potsdam conference, the winners of the Second World War (USSR, USA, and Great Britain) made the decision to dump German chemical weapons in some regions of the Baltic Sea. Each country dumped these weapons separately, and each chose its own method to dispose of them. The details of these operations are still kept secret, which gives rise to many rumors and triggers many fears, which are accentuated by the press and experts. They talk about the possibility of an environmental disaster. The issue has most recently received attention due to the discussion of building a gas pipeline between Russia and some European countries through the Baltic Sea. Some experts have understandably questioned whether such a project could have an impact on the buried chemical weapons, and have asked if we need to take any measures to prevent it. Considering that this problem has an environmental component, it can be well discussed in a forum along with other issues relating to chemical weapons destruction in Russia and other countries.

Thank you for your attention.

**The role of the chemical weapons convention
and the OPCW in the verification of destruction
of the chemical weapons stockpile
in the Russian Federation**



***S. Kisselev,
Senior coordination/planning officer,
International cooperation
and assistance division,
OPCW Technical secretariat***

OPENING REMARKS

It is a pleasure to be able to join you today at the National Dialogue Forum and on behalf of the Director-General of the Organisation for the Prohibition of Chemical Weapons, Ambassador Rogelio Pfirter, express our thanks to Mr. Baranovsky and Mr. Robinson of the Green Cross for their kind invitation to provide a briefing on the role of the OPCW in verifying the destruction of chemical weapons in the Russian Federation.

As the Director-General is not able to attend this Forum, he has asked me to forward to you his best wishes for a successful exchange of views with the aim of speedily and safely proceeding with the destruction of the declared chemical weapons arsenal in the Russian Federation.

Ambassador Pfirter also wished to convey to you his support for this Forum as it has consistently played a constructive role in our common pursuit of the aims and objectives of the Chemical Weapons Convention. Ambassador Pfirter extended his thanks to our colleagues at Green Cross for their insights and perspectives on chemical disarmament that they have generously shared with the Director-General and the staff of the Technical Secretariat. The Director-General emphasized Green Cross' fruitful and diligent efforts to raise awareness among legislators and the general public on the urgent need to prioritize the timely destruction of these weapons.

Ambassador Pfirter's main message to you is: "In the past year, real progress has been made. The accelerating pace of destruction in the Russian Federation and around the world is crucial and must be sustained.

If the Convention's deterrence effect is to be preserved, and if we hope to free the world of the weapons, the stockpiles must be destroyed in compliance with the Chemical Weapons Convention and thus to never present a threat again".

The Chemical Weapons Convention – an Overview

As the topic of my presentation is the verification of destruction under the Chemical Weapons Convention, allow me to briefly explain a few aspects of the Convention for those that may not be familiar with the treaty:

180 countries have joined the treaty and have become Member States of the OPCW.

The OPCW is the world's fastest growing multilateral disarmament agency and is the sole agency charged with the total elimination of chemical weapons.

The treaty is steadily nearing universal application. Only 15 of the 195 countries recognized by the United Nations have not as yet joined.

Five new States have joined the Convention since we last met.

- Democratic Republic of the Congo;
- Djibouti;
- Haiti;
- Liberia;
- Central African Republic.

Four of these States Parties are recovering from long periods of conflict. They have joined because they realize that this ban also contributes to sustainable security and development.

The Convention's jurisdiction includes over 95% of the world's population and 98% of the relevant chemical industry. Chemical industry is an active supporter of the chemical weapons ban. The OPCW, the Convention's implementing agency, is engaged daily in verifying the destruction of weapons of mass destruction.

The treaty is a very ambitious legal instrument, obligating all of the countries that ratify this agreement to eliminate any chemical weapons in their possession under international verification and within the Convention's timelines.

The Convention is the first global disarmament regime banning an entire category of WMD under strict verification.

It calls for the destruction of CW stockpiles and production capacity.

It ensures non-proliferation through stockpile security, chemical industry inspections and declarations.

It provide protection and assistance, implementation support and capacity building.

The treaty provides protection for the global population against the latent threat of chemicals used as weapons, and in that sense, the Convention is an indispensable element in the international effort to ensure peace and security.

We must not forget that within the memory of everyone in this room, chemical weapons were integral part of many nations' defence policy.

Now, this treaty grants 180 countries the best possible degree of assurance that they can renounce these weapons and choose to exit that escalatory spiral, and in turn freeing resources for peaceful use, as well as enhancing trust and reducing the threat of conflict between nations.

There are a few hold-outs: fifteen countries have not ratified that Convention, and thus have made no declarations and we cannot inspect and verify compliance on their territory.

Only four States remain outside the CWC in Africa: Angola, Congo, Guinea-Bissau, Somalia.

We expect to see more progress in Africa in the coming year.

In Asia, we have a dialogue with Myanmar, but are concerned about the DPRK's lack of response.

The UN Security Council Resolution 1718 has called upon the DPRK to verifiably and irreversibly destroy all of its WMD stockpiles.

In Europe, Montenegro was recently recognized by the UN and we expect its membership in the coming months.

In the Middle East, Egypt, Israel, Iraq, Lebanon, and Syria remain outside.

Lebanon and Iraq have made process in the political process to ratify the Convention.

A major workshop was held in Rome last week, attended by all of these States in the Mediterranean Basin that have not joined.

We urge them to join as soon as possible.

Finally, in the Caribbean, only three States remain outside:

The Bahamas, Barbados, and the Dominican Republic;

The nations are receiving the support they need to join as soon as possible.

Status of the Convention: Destruction of CW

More than 30%, or almost 2.6 million, of the declared munitions and containers have been verified as destroyed by OPCW inspection teams.

The destruction of over 21% of the total stockpile has been verified, in other words, over 15 million kilograms of the deadliest chemical compounds on earth can no longer threaten our security – an impressive figure.

In the Russian Federation, the OPCW has conducted in the past nine years 106 inspections at CW destruction facilities to make sure that the chemical weapons are destroyed completely, or "irreversibly" as the Convention states.

Additional Note: Secure Storage

These chemical weapons stocks have been secured.

Secure storage means that the chemical agent is far from battle-ready and, through the OPCW's short-notice inspections, any diversion would be swiftly identified.

The OPCW systematically inspects all secured stockpiles, of course, including those in the Russian Federation, but also stockpiles in the other five countries that have declared chemical weapons.

Thus far, the OPCW has undertaken 63 missions to the Russian Federation to verify that the stockpiles here are secure.

This step into storage has already substantially reduced the possibility of use or spread of chemical weapons. Security is a paramount concern as all possessor States are under obligation to prevent illicit transfer.

All six possessor States have submitted plans for the verified destruction of the declared stockpiles, which are subject to the Member States' review.

Albania is expected to commence and complete the destruction of its stockpile before the end of April 2007.

"A State Party" is expected to complete destruction of its stockpile by 31 December 2008 and has already destroyed over 83% of its stockpile and 100% of its declared Category 3 chemical weapons.

India is expected to finish the destruction of its declared Category 1

chemical weapons in 2009. India has already destroyed over 67.7 % of its stockpile as well as 100% of its declared Category 2 and 3 chemical weapons.

Libya is expected to complete the destruction of the Category 1 chemical weapons by 31 December 2010. Libya has destroyed 100% of its Category 3 chemical weapons and it has destroyed 37.85% of its Category 2 weapons. Libya is expected to destroy 100% of the Category 2 chemical weapons by 31 December 2011.

The United States has requested an extension for the destruction of 100% of its Category 1 stockpile (declared inventory = +27,000 metric tons) until 29 April 2012. To date, the U.S. has destroyed approximately 37.57 % of its declared inventory of Category 1 chemical weapons, as well as 100% of its Category 3 chemical weapons.

Operations have been completed at two U.S. facilities: Johnston Island and the Aberdeen Chemical Agent Disposal Facility, Maryland.

Six other major facilities are currently operating.

Site preparations are underway for construction of the final two facilities.

Status of the Convention: Elimination of Production Capacity

In addition to the chemical weapons stockpiles, all of the 65 former chemical weapons production facilities declared by 12 States Parties have been permanently inactivated.

Their inert status is systematically checked to ensure that the facility cannot be reconstituted to produce chemical weapons.

In the Russian Federation, 155 inspections of CWPF's have been conducted.

STATUS REPORT: ON-SITE INSPECTIONS

The risk of chemical weapons proliferation looms ever larger, particularly in view of the potential for terrorists to acquire chemical weapons and the materials for their production.

+ 2,600 inspections have been conducted to verify chemical weapons destruction and non-proliferation.

+ 1,100 have been conducted at industrial sites.

More than 1,000 sites on the territory of 76 States Parties have been inspected.

In the Russian Federation, 19 industrial inspections have been conducted.

All States that join the OPCW are under permanent obligation to host inspections, and to identify and declare any relevant industrial activity.

The support and cooperation of our Member States and of the global chemical industry for our non-proliferation activities is crucial in this regard. The components and know-how to produce simple chemical weapons are widely available, and the financial and technological hurdles are much less problematic than those posed by the construction of nuclear, radiological or biological weapons.

REQUIRED DESTRUCTION RATE: Russian CW Destruction

The Convention stipulates that these stockpiles must not only be destroyed under verification, moreover that destruction must be completed within ten years after the Convention became international law, or 29 April 2007. In exceptional cases, countries may apply for an extension to 2012.

Russian CW Destruction: Extension requests

The Russian Federation has requested an extension for the destruction of 45% of its Category 1 stockpile to 31 December 2009.

The Russian Federation has also requested an extension for the destruction of 100% of its Category 1 stockpile (declared inventory = +39,900 metric tons) until 29 April 2012.

The Russian Federation has already destroyed 100% of its Category 2 and 3 chemical weapons.

Destruction facilities

The Russian Federation will operate seven chemical weapons destruction facilities.

Three destruction facilities have been operational in the Russian Federation since 1997: Gorny, Kambarka and Maradykovsky.

Two new destruction facilities have come on line since 2005: Kambarka and Maradykovsky.

The remaining four sites are either under construction or are in the final engineering planning stages.

The Director-General has received the formal assurances from the Russian Government of its firm determination to move ahead decisively, to accelerate the pace of destruction, and to meet their obligations in time.

Government reaffirmed to the OPCW its formal assurances of deadline compliance. The Director-General attended the opening of Kambarka and Maradykovsky. Progress in Russia and in all the other possessor States is monitored by the OPCW's Executive Council.

Deadline compliance remains the key objective.

The support the Russian destruction programme is receiving from the G8 through the Global Partnership should be appropriately acknowledged.

Russian CW Destruction

- Planned CWDF Activity

The destruction operations at Leonidovka and at Shchuchye are expected to commence in 2008

The destruction operations at Pochep and Kizner will follow in 2009.

Russian CW Destruction – Status of Destruction

The Russian Federation has declared 39,900 metric tonnes as of October 2006.

Approximately 6.5% of its declared inventory of Category 1 chemical weapons has been destroyed thus far.

This is more than double amount destroyed in 2005 at this time.

In total about two and one half million kilograms have been verifiably destroyed versus less than 1 million kilograms at this a year ago.

Russian CW Destruction – Gorny

The entire stockpile held at Gorny was completely destroyed by December 2005.

Russian CW Destruction – New Facilities

Two new facilities commenced operations this year: Kambarka and Maradykovsky.

Russian CW Destruction – Leonidovka

First of the two train processes is scheduled for completion in mid-2008. The terrain under preparation for industrial area and roads.

A residential village, external water-pipe and drainage network are now under construction.

As foreseen by the Russian Federation's national legislation, priority is given to setting up social infrastructure.

Construction of the heating networks, the Medical Centre, water and power networks.

Russian CW Destruction – Pochep, Bryanskaya oblast and Kizner, Udmurt Republic)

At the moment the detailed work of developing the design and costing documentation is under preparation.

Simultaneously the construction of the social infrastructure is also making progress.

We have been informed by Russian officials that the Kizner facility's construction is scheduled for completion in 2009.

Russian CW Destruction – Shchuchye

This CWDF is due to be completed in mid-2008.

The technical assistance and the financial resources needed to build the extensive infrastructure have been provided by a number of OPCW Member States:

the United Kingdom of Great Britain and Northern Ireland, Italy, Canada, Norway, the European Union, the Netherlands, Switzerland, New Zealand, Ireland, the Czech Republic, Belgium, France and the American NGO, the Nuclear Threat Initiative, NTI.

The main facilities in the industrial area and its engineering infrastructure are being built with assistance from the United States of America.

The social infrastructure is funded by the Russian budget.

This includes the reconstruction of the central district hospital and work to complete the water-supply and drainage networks, purification systems, and gas supply networks.

Destruction Delays

Ladies and gentlemen, there are of course sizable challenges, to be confronted.

Destruction delays are not surprising given the considerable difficulties this hazardous process presents; chemical demilitarisation requires purpose-built facilities, whose complex engineering and construction must meet stringent safety and environmental standards.

On top of this, the legitimate interests of all stakeholders must be addressed – these matters require time to reach agreement within the legislature and administration.

This Forum is crucial in establishing, enriching and sustaining that dialogue between stakeholders.

The costs of demilitarisation are estimated in the tens of billions of dollars. Few Member States can shoulder this burden alone.

International support, in particular through the Global Partnership, is crucial in maintaining the treaty's credibility and its ability to sustain adherence to the obligation to destroy swiftly.

The OPCW commends the generosity of the countries that have joined the Global Partnership for their commitment to chemical demilitarisation and for their contribution to the total elimination of these weapons.

Conclusion

It is clear for everyone that both the Russian Federation and the United States have not been able to keep up with the timelines.

Both nations have faced this issue squarely and have transparently and proactively provided revised destruction plans intended to accelerate the elimination process.

Strict adherence to the provisions of the Chemical Weapons Convention is essential, especially when it comes to destruction of the existing stockpiles.

Failure in this field would inevitably weaken not only the CWC but the whole edifice of multilateral disarmament, as it would risk reopening and putting into question the very purpose and intention of a Treaty which is the only active and effective instrument overseeing the destruction of a whole category of weapons of mass destruction.

Thank you very much.

The mechanism of information sharing for the Federal program of chemical weapons destruction



***S. Borissova,
Head of public relations and information
awareness regarding the chemical weapons
destruction program, Rossiiskaya Gazeta
editorial office***

Dear Sirs! On behalf of Rossiiskaya Gazeta, I welcome your Forum!

Information to the public on the chemical weapons disarmament process in the Russian Federation has been provided by the Russian government-sponsored publication, Rossiiskaya Gazeta, in collaboration with the ITAR-TASS news agency. Vast resources of these two federal news agencies, including issue-oriented and locally represented professional staff as well as great organizational resources, allow for great information dissemination to the local populations near chemical weapons destruction (CWD) facilities, to the Russian people as a whole, and to all other Chemical Weapons Convention (CWC)-signatory countries.

These levels of information sharing – regional, federal and international – allow for comprehensive and complete coverage of the chemical weapons stockpile destruction process in the Russian Federation. Therefore it is important that we speak of other activities as well in addition to the news disseminated through publication in Rossiiskaya Gazeta or by ITAR-TASS, although the two are both authoritative and significant.

In addition, Rossiiskaya Gazeta has organized many meetings through its Editorial and Information Centers (EIC), at its offices at local chemical weapons stockpile and destruction sites, and at other influential regional newspaper offices. Many additional publications of local interests have been published. Furthermore, the local staff of Rossiiskaya Gazeta organizes tours of CWD facilities, roundtable dis-

cussions, and conferences on chemical weapons disarmament and local social problems. The latest such meetings were held in the Udmurtiya and Kirov regions. EICs also distribute brochures on prepared topics to the public.

Moreover, together with ITAR-TASS, Rossiiskaya Gazeta issues an electronic magazine called Chemical Disarmament. We also cooperate with the Russian Chemical Magazine as well. Thus Rossiiskaya Gazeta tries to do its best for full, complete, and unbiased coverage of chemical weapons disarmament issues.

We support Green Cross Russia's constructive approach as a solution to environmental protection problems. Your organization not only advocates for the public and authorities to closely examine this problem, but also offers alternative solutions. We are of the same opinion that the elimination of these poisonous gases from Russian regions is certainly important, but it is only one aspect of the fight for environmental improvements in our country. It is necessary to address the issues of environmental preservation in a multifaceted way, actively addressing the public, and educating Russian citizens to live in harmony with nature and to constantly care about environmental protection for themselves and their descendents.

I wish you a fruitful and productive Forum.

Thank you for your attention.

The G-8 global partnership and chemical weapons destruction in Russia



***V. Biryukov,
Head of global partnership for security and
disarmament issues, Ministry of foreign
affairs of the Russian Federation***

Cooperation with foreign countries in the area of chemical disarmament is one of our priorities determined within the framework of the G-8's Global Partnership.

Great Britain, Germany, Ireland, Italy, Canada, the Netherlands, New Zealand, Norway, Poland, USA, Finland, Czech Republic, Switzerland, Sweden, and the European Union all provide free financial and technical cooperation to assist Russia in the process of chemical weapons destruction.

In fact, an appropriate legal basis for agreement has been already formed. We cooperate with the USA, Germany, and Great Britain, which already provided support to Russia before the Global Partnership was launched in 2002, based on previously concluded agreements. Starting in 2002 we have signed agreements with Canada, Poland, and Switzerland. This past February we signed an agreement with France; the process of its ratification has already now been started. This past June a Protocol was signed on a seven-year prolongation of the Russian-American bilateral agreement on "cooperative threat reduction" which also embraces ongoing work on chemical weapons destruction.

A number of countries that do not have bilateral agreements on chemical weapons destruction with Russia apply a trilateral mechanism, which means they act under the operating agreements Russia has with a third country (mainly, via Great Britain). The Netherlands, Norway, New Zealand, the Czech Republic, the European Union, Sweden and Belgium collaborate in this way.

Since the launch of the Global Partnership's chemical weapons destruction program we have received around US\$ 437 million. Starting in 2002, with the help of our partners, two facilities on chemical weapons destruction have been put into operation in the Gorny settlement of the Saratov

Oblast, and the city of Kambarka in the Udmurt Republic. The facility in Shchuch'ye is under construction. Canada and Great Britain will assist in the construction of another facility in the city of Kizner in the Udmurt Republic. Cooperation with Germany will continue, but it has not yet been determined for which facility – at Kizner or Pochep.

At the same time, I would like to highlight the fact that we have not received the full amount of financial support promised by foreign governments. This is the main problem for us today. Our partners have committed huge amounts and have assured us in agreements to provide US\$ 2 billion, starting in 1992. However, as I already mentioned, we have received only US\$ 437 million to date.

We should point out that expectations were high. The donors themselves declared their intention to provide a significant amount of money. As a result we renewed the Federal Objective Program for Chemical Weapons Destruction with regard to that support, as we were thinking the promised assistance would be forthcoming very soon to finance a portion of the construction work for the chemical weapons destruction facilities.

In reality, the picture is different. The large donors have not fulfilled their duties in full. Countries offering smaller contributions do not provide them on a regular basis. As a result, foreign aid flows in unpredictable ways. The deadlines for the facilities to be completed are being delayed. Thus we have to search for other sources of financing.

There is a significant gap between the foreign aid amounts declared by government donors and the amounts being provided in reality.

The biggest donor is the USA (since 1992 we have received more than US\$ 231 million). However, the problems with this country's support are also the biggest ones. The main problem is the low level of effectiveness of the assistance provided. According to information from our authorities, not more than 30% of the total amount of U.S. financial assistance goes to Russia; Americans spend the remaining amounts on their own needs (expenditures for business trips and support of administrative staff, etc.). Moreover, cooperation with the USA is a politically sensitive issue.

Congress stipulated that the President, before approving the annual budget for the Nunn-Lugar Program, has to verify to legislative representatives that Russia is fulfilling its international obligations on non-proliferation to the fullest extent and that providing support to Russia for the demilitarization of weapons of mass destruction is in line with the national interests of the USA. Each year the president of the USA waives these

limitations established by Congress on providing support to Russia in chemical weapon disarmament by signing a special decree.

Apart from that, Americans have informed us that they will not provide the full amount of assistance now because of their "limited budget." This assistance was intended for construction of the facility at Shchuch'ye.

The funding declared by Great Britain for chemical weapons disarmament has been received very slowly: US\$ 8 million out of the total US\$ 120 million declared has been provided to date.

France declared a pledge of Euros 250 million within the framework of the Global Partnership for projects in the chemical-biological area but has delayed the beginning of bilateral cooperation. An agreement in this area was signed this past February but Paris has promised to provide only Euros 6 million at first.

The European Union restricts itself to financing the projects started before the launch of the Global Partnership. From 2001 to 2005 we have received around US\$ 23 million from the EU. J. Barroso, Chairman of the European Union Commission, noted in his message that "it is difficult to say when and how additional means can be provided" on this, which is important to us. Nothing has changed over the past year.

In fact, cooperation with Italy has not started even though Rome, according to the agreement signed between Russia and Italy on chemical disarmament in November 2003, obligated Italy to provide Euros 360 million for the construction of a chemical weapons destruction facility in Pochep. Though, to be fair, I should mention that before the launch of the Global Partnership, Italy allocated Euros 5 million.

The situation with Canada seems to be more positive. The country's government has provided around CAS\$ 100 million for infrastructure projects and equipment delivery to the facility at Schuch'ye and has promised to allocate the same amount for the Kizner facility. Germany has also provided significant assistance in construction of two facilities and its government is ready to continue bilateral cooperation. But there are always technical or organizational problems with these two states.

I would like to say the following in order not to create an image of Russia being dissatisfied with the assistance provided by Global Partnership members. Russia is self-sufficient in carrying out the burden of chemical weapons destruction on its territory. But help was promised by the "Big 8" leaders when the Global Partnership was launched in 2002. Agreements have been concluded with appropriate amounts to be allocat-

ed; these amounts were expected; but they do not flow on a regular basis, and they are not provided on a timely basis.

Of course, we value the positive work of the partners, and are grateful to all the participants for their help. But we are ready to cooperate only when our partners are willing to do so. We don't force anybody. We just talk about fulfilling the obligations taken by the partners. The same can be said about the opinions expressed in different countries that Russia is very rich and doesn't need external support.

Yes, in fact our financial opportunities have grown. Within the last three-year period the allocations from the Russian budget to chemical weapon disarmament have increased. Overall, the amount of the Russian contribution within the framework of the Global Partnership exceeds the amount of foreign assistance and is constantly growing. US\$ 186 million was allocated by Russia in 2002, US\$ 190 million in 2003, and US\$ 212 million in 2004. In 2005 the amount allocated from the Russian federal budget amounted to US\$ 408 million; in the year 2006, US\$ 640 million will be allocated.

We expected foreign assistance to make up a small part of the total expenditures of Russia on chemical weapons disarmament. We have worked on the construction of seven chemical weapons destruction facilities. Our partners have assisted in the construction of only three of them. At the same time, the amount that our partners spent on Gornyy and Kambarka is less than one quarter of the total contributions. Only in Shchuch'ye did the foreign participation reach a more or less significant share – about 58%. The rest of the expenditures are covered from the Russian budget.

To sum up, I would like to make the following three points:

- Chemical weapons destruction is one of the priority issues for Russia within the framework of the Global Partnership since the work is far from its final stage;

- There is still a gap between the amounts pledged and those actually allocated. With regard to this funding gap, we see the main task of our cooperation being the same as it was before – to put political agreements into practical action. Moreover, they should be delivered in a timely and predictable manner in order not to cause delays in the activities planned.

Progress in 2006



J. Harrison,
Deputy Director, Counter-Proliferation and
Arms Control, Ministry of Defence,
United Kingdom

Introduction

I am pleased to have the opportunity to address this important gathering again. The UK welcomes the major contribution that the Green Cross has made to improving public understanding of the issues relating to chemical weapon destruction, both in Russia and internationally. Within Russia, Green Cross has a key role both at national level, and at local level. The UK is therefore glad to contribute funding both for this important national event today, and for the local Green Cross office in Kizner.

This is the third year that I have attended the National Dialogue. I have been particularly impressed in previous years that the overall mood was positive and constructive amongst all stakeholders. I am confident that this will again be the case this year, given the significant progress that is now being made.

Today, I would like to speak briefly about recent developments on Russia's Chemical Weapon destruction programme; outline progress in the UK's assistance programme over the last year; and briefly set out our plans for the future.

Chemical Weapon Destruction in Russia

When I attended the National Dialogue last year, I highlighted the key milestones that Russia expected to reach in its destruction programme in the coming months. I said that, over the previous year, the outlook for Russia's destruction programme had begun to be transformed, and that there was increasing international confidence in Russia's ability to deliver its commitments. I am glad to say that, a year later, I can stand by those judgements.

As we have heard, Russia has met the key milestones, albeit with timescale slippage in some cases:

- operations at Gornyy were completed last December, on schedule;
- initial operations began at Kambarka last December, building up to full scale operations from March;
- operations formally began at Maradykovskiy in September, and are now well under way.

Without question, this is very good news. The next key milestone is achievement of the extended deadline under the Chemical Weapons Convention for destruction of 20% of the stockpile – 29 April 2007, just under 6 months away. It is clear that Russia fully intends to meet that deadline, and is already making very substantial progress. We all hope that Russia will succeed. In order to meet the Convention's requirements, it will of course be essential that destruction is complete and irreversible, without any scope for damaging debate on definitions of "end point of destruction", which could detract from Russia's achievement. By this time next year, Russia will expect to be advancing beyond 20% towards the proposed revised 45% deadline of December 2009. It goes without saying that this deadline will also be challenging.

UK Assistance to Russia with CW Destruction

Turning to the UK's programme of assistance to Russia with CW destruction, the UK's current priority is to assist with timely completion of the destruction facility at Shchuch'ye. The UK's Minister for the Armed Forces, Adam Ingram, continues to take a close personal interest in this work, following his visit to Shchuch'ye last year. In the past year we have achieved a number of key milestones, although with some timescale slippage.

We have started construction work on the 18-km railway that will transport munitions from the storage site to the destruction building, and this is on schedule for completion by the end of next year. Canada is funding this project.

We have started and finished work on the reconstruction of the electricity substation at Puktysh, ahead of schedule. This will provide back-up power to the destruction facility. The project has been mainly funded by New Zealand.

We have started – or are about to start – three other industrial infrastructure projects:

- The Local Public Address system and Inter-Site Communications system; both will be completed next year and are funded by Canada; and
- The completion of the electricity supply system, which is being funded not only by the UK, but also Belgium, the Czech Republic, The Netherlands, Norway, Sweden and subject to confirmation, the EU.

We have completed manufacture of the Metal Parts Furnace for the second munitions destruction building, with funding from the UK, The Netherlands and Ireland.

And we are in the process of ordering most of the remaining key equipment for the second munitions destruction building, which is being funded by Canada. Some of this has already been delivered to site, some is on order, and some is still in the planning stage. Most of the equipment is scheduled to be delivered to site during 2007.

There have been some delays and difficulties in our programme. This is not surprising. These are substantial and complex projects, which we are carrying out in a somewhat remote part of Russia. We have to ensure that we provide value for money not only for British taxpayers, but for those of Canada and other donors. And the FAI has to ensure that its requirements – as the final State Customer – are met. Unfortunately, it can take a great deal of time to address all these requirements.

In total, to date the UK has spent some 15M pounds on assistance at Shchuch'ye; we expect to spend around a further 10M pounds. But in addition, we have put on contract funding from other donors worth some 30M pounds, and expect to place contracts worth around a further 30m pounds on behalf of other donors. In total, therefore, we expect to implement projects worth around 85m pounds (\$150M), using funds from the UK, Canada and other donors.

In this context, I would like to highlight two points:

- the UK's very close and effective partnership with Canada has enabled both of us to make a much more effective contribution than we would if we were working separately.
- Last autumn, the UK and Canada wrote to a number of potential donor countries and encouraged them to contribute at Shchuch'ye. I am very pleased to say that, following our approach, a number of Global Partnership members either decided to make further contributions at Shchuch'ye, or to make new contributions there, for the first time, through the UK pro-

gramme. These include Belgium, the Czech Republic, Ireland, The Netherlands, New Zealand, Norway and Sweden. We hope also for confirmation in the near future that other donors will also make new contributions.

The UK greatly values the contributions that other donors are making at Shchuch'ye. They are important both in political and financial terms. We very much welcome the opportunity to work in partnership with them and the FAI to help achieve our common aims, both under the Global Partnership and the Chemical Weapons Convention.

Kizner

We expect that most of our projects at Shchuch'ye will be substantially completed during 2007, with some continuing into 2008. Looking beyond this, in July this year we announced that we would provide future assistance at the planned CW destruction facility at Kizner. Our aim is to work at Kizner in even closer partnership with Canada. We will also welcome contributions from other donors, in the same way as at Shchuch'ye. We have selected Kizner not only because Viktor Kholstov has encouraged us to do so, but because we understand that the facility will be almost identical to that at Shchuch'ye. This means that we can apply our experience from Shchuch'ye to the best effect, with the aim of minimising risks and timescales. We have started discussions with the FAI, and hope at least to be starting preparatory work at Kizner by this time next year.

Conclusion

In conclusion, since last year's National Dialogue, I believe that really substantial progress has been made by the Russian Government and by donors, including the UK and others represented here today. A great deal remains to be done. The timescales for completing individual projects, for completing construction of entire facilities, and for completing destruction of all chemical weapon stocks remain urgent. I look forward to continuing to work in close cooperation with Viktor Kholstov and the FAI, with Canada, the US and other donors.

By next year's National Dialogue, I am confident that Russia, working with the UK and other donors, will have taken several more decisive steps towards destruction of its CW stockpile.

German assistance to the Russian chemical weapons destruction programme



***K. Aus dem Siepen,
First Secretary, Political Department,
Embassy of Germany in Russia***

1. Political framework:

The fight against terrorism is the scope of the G8-Global Partnership – originally a Russian-German initiative. In order to prevent the spread of Weapons and Materials of Mass Destruction in Russia and later in other countries, the G8 pledged to raise up to 20 billion US\$ from 2002 to 2012.

GER committed to give up to 1,5 billion US-\$ and is therefore one of the main donors.

The destruction of chemical weapons is only one of the priority concerns identified by the G8, the others being the dismantlement of decommissioned nuclear submarines, the disposition of fissile materials and the employment of former weapon scientists. GER is involved with bilateral projects in the Russian Federation in 3 of these 4 areas of work.

In 2007, Germany will take over the presidency of the G8. Global Partnership will be an important issue. The mid-term review will permit us to take stock of the achievements and discuss what still needs to be done.

2. Results of German-Russian cooperation in the field of the destruction of chemical weapons until today

Till now, 2 CWDF were completed in cooperation with GER:

Gorny: started in 2002, supported by GER with \$50 Mio; destruction activities were completed in 2005: 1200 t Lewisite were destroyed.

Kambarka: started in 2003, supported by GER with appr. \$150 Mio, which is a quarter of the total costs; was officially inaugurated in March 2006.

The destruction facilities in Kambarka play an important part in fulfilling Russia's obligation to destroy 20 % of its declared CW-stock by

April 2007. By now, appr. 1300 t of the 6349 tons of Lewisite have already been destroyed.

Allow me to give you a practical insight of what was built with German help:

- GER built and delivered a turn-key ready thermal destruction facility for solid, liquid and gaseous residues generated during the destruction of Lewisite;

- GER also built a draining system for Lewisite cisterns containing the combat agent;

- GER supplied technological equipment for the safety, temperature control and ventilation systems including double-wall, heat-insulating enclosures of the 5 storage buildings;

- GER constructed and delivered filter systems for contaminated buildings;

- GER produced and delivered 2 detoxication modules mounted on 2 mobile transborders.

Future projects

There has been preparatory work on future cooperation in CWDF Leonidowka financed by GER. But, as plans for cooperation in Leonidowka were cancelled by the Russian Federal Agency for Industry in September this year, discussions on future projects are under way.

Germany stands ready to continue to support Russia's efforts to destroy its CW by the year 2012.

Partnership in action



***M. Opgenorth,
Counsellor, Global Partnership Program,
Embassy of Canada***

Good afternoon and welcome.

My presentation today has three parts. First, I'd like to provide a brief update you on the Canadian-funded projects at Shchuch'ye. Second, I will comment upon the lessons we have learned from our work to date. Finally, I will describe our plans for more work at Kizner, and how we will apply the lessons we have learned from our experience at Shchuch'ye.

We have already heard today from some of our partners, Viktor Kholstov and James Harrison about the work underway at the Shchuch'ye site. Canada is involved in four main projects: an 18 km railway linking the chemical weapons storage facility to the destruction facility at a cost of up to \$33 million Canadian dollars; provision of the majority of the equipment for the 2nd main destruction building at a cost of up to \$55 million Canadian dollars; a local public address system and inter-site communications lines at a cost of up to \$10 million Canadian dollars; and other infrastructure projects which total \$5.35 million Canadian dollars. This adds up to a total of \$103.35 million Canadian dollars (approx. RUB 2.471 billion).

I would like only to highlight some of the results of our efforts to date. Earthworks on the railway are expected to be completed this year with the railway project finished by the end of the 2007 construction season. Currently the project is over 23% schedule complete. Photos taken during the latest monitoring visit in October 2006 show this progress.

The railway project includes a rail bridge over the Miass River. The Nuclear Threat Initiative (NTI) provided US\$1M to fund the construction of the bridge which is now over 17% schedule complete, with the first concrete section of the bridge being poured on October 20th.

In late July 2006, Canada hosted a ceremonial 'spike driving' to highlight the implementation of the railway project. Viktor Kholstov, just one of a number of government representatives from all levels who were in

attendance, drove in the ceremonial first spike and we hope to have him drive in the last spike next year. The ceremony was not just symbolic of our partnership, but gave stakeholders from the Russian federal, regional and local government, NGOs and the media and opportunity to meet in an informal way, to exchange ideas and views about the project.

Canada has also committed \$10M for high-priority infrastructure projects at Shchuch'ye.

In response to the priorities identified to us by Rosprom, to ensure the safe functioning of the facility and the safety of local residents, we are funding the construction of a Public Address System and Inter-Site Communications. The Local Public Address System will provide timely information to residents in the 16 settlements near the facility. While the Inter-site Communications system will ensure reliable communication between the storage facilities at Planovy, the destruction facility and the main telecommunications centre in Shchuch'ye. Both projects are underway and completion is expected in summer 2007.

Finally, Canada is providing 55 million Canadian dollars for most of the demilitarization equipment in the second main destruction building at Shchuch'ye. This equipment will double the destruction output of the facility. The equipment to be supplied includes:

Demilitarization Process Lines; Catalytic Reactors; Munitions Thermal Treatment Destruction Process Lines; Leakers Treatment Area; Automatic Process Control System.

Gas Analyzers, a Venturi Scrubber and additional equipment both standard and non-standard.

The UK Ministry of Defense is managing the procurement this equipment, purchased with Canadian funds. All of the equipment that Canada is buying, aside from the Venturi Scrubber, is made in Russia by Russian companies and Russian workers.

The National Dialogue Forum has historically been a forum in which issues can be discussed openly and honestly. In that spirit I would like to highlight some of the lessons we have learned from our experience at Shchuch'ye.

Feedback from our partners has indicated that we should consult more and sooner with our partners, first of all with the Federal Agency for Industry, and also with regional and local government representatives, on decisions that we make regarding all aspects of the project at the earliest stages possible to avoid misunderstandings.

We also need to keep NGOs, such as the Green Cross, informed in order to ensure that the public and other interested partners have the latest information.

During our work at Shchuch'ye we have been involved in several, different kinds of projects. In the future we feel that we could be more effective and efficient if we instead focus on specific projects. As you will see we are adopting this practice at this early stage for the Kizner facility. According to the schedule tabled by the Russian government at the Organization for the Prohibition of Chemical Weapons last October (2005), the operations at Kizner Chemical Weapons Destruction Facility are to begin in 2009. Canada has proposed to fund the equipment for both destruction process lines, and the Russian side (RosProm) has accepted this proposal.

At the G8 Summit in St. Petersburg, Canada committed \$100 million for Kizner, out of a total of 150 million Canadian dollars for new projects under the Global Partnership. Since we started our cooperation at the Shchuch'ye site the Canada-Russia bilateral agreement was signed. This agreement will now form the legal basis for our work at Kizner. Negotiations are currently under way to finalize the mechanism for this work with Rosprom and the UK MoD.

In conclusion, I would like to thank the Green Cross for the opportunity to speak today. I am happy to note the presence of John Coe, who is representing the newly formed Green Cross Canada here today.

We are especially proud of our contribution of \$100 thousand US dollars per year for 4 years to the operation of the Green Cross Public Outreach and Information Office in Izhevsk. In cooperation with the UK, we have produced a brochure regarding Canadian and British participation in projects at the Shchuch'ye site. These brochures were sent to all Green Cross offices and are available to the public.

Thank you for your attention.

Swiss contributions to chemical weapons destruction in the Russian Federation



***A. Friedrich,
Head, Arms Control and Disarmament
Section Swiss Federal Department of
Foreign Affairs***

First of all, I would like to thank, on behalf of the Swiss authorities, Green Cross for organising another National Dialogue Forum. We remain convinced of the value of such a conference and are delighted to co-sponsor it once again.

The impressive list of participants shows how useful such events are. This forum is a unique opportunity to bring people together who, from a very different perspective, are all pursuing a common goal.

I am pleased to report that the Swiss projects in Russia have made considerable progress since the last National Dialogue Forum a year ago.

In the framework of the program started in 2003 to support chemical disarmament in the Russian Federation, Switzerland will have spent about 170 million roubles by the end of this year, which is a little more than half of the total funds allocated to this program.

Let me present briefly the status of our different projects, which all relate to technical infrastructure.

Our first project was to finance the Sanitary and Hygiene Monitoring System around the Shchuch'ye destruction facility. Our specialists made their last visit to this project this summer and they were impressed by the quality of the work done. According to them, the monitoring system put in place around Shchuch'ye is at present one of the best worldwide, both in terms of equipment and data processing.

Physically, the system consists of a Chemical Analytical Laboratory, two Mobile Laboratories and a Calculation Centre.

The Chemical Analytical Laboratory is hosted by the Centre of Hygiene and Epidemiology in the Kurgan Oblast. The equipment of the laboratory is used to analyse inorganic and organic pollutants on water, snow blanket, soil and bottom sediments.

The mobile laboratory for water and soil monitoring includes some analyzers as well the necessary tools to sample bottom sediments and snow blanket to bring back to the laboratory in Kurgan.

The other mobile laboratory is equipped to monitor atmospheric air. Its equipment comprises analyzers for carbide oxide, sulphur dioxide, nitrogen oxides and organic contents.

The Calculation Centre is also hosted by the Centre of Hygiene and Epidemiology in Kurgan. We were delighted to learn that the Rost Association and the Federal Agency for Industry will set up a similar system around other destruction sites.

Another completed project is the modernization of the electrical substation in Kambarka.

During the first phase of the project, which was co-financed with the Netherlands, the electricity transformer was totally renewed.

During the second phase, the substation was equipped with a new control-command system. Our experts made their final visit this year. They concluded that the destruction site is now supplied with electricity by a reliable and solid substation and that the quality standards of the work done meet and are in some respects higher than Western standards.

In July this year, we signed an Implementation Agreement to finance part of the equipment to build the electrical substation in Maradykovsky. This project should be completed by the end of this year.

And what are our plans for the future?

We intend to spend the remaining funds dedicated to the Russian Federation on two more projects of equipment for electrical substations: in Leonidovka in 2007 and in Pochev in 2008.

I should also mention our ongoing program to support the activities of Green Cross which are partly financed from our framework credit. Since 1993, we have spent about 120 million roubles in the Russian Federation through Green Cross to facilitate chemical weapons destruction.

At present, Switzerland is funding Green Cross outreach offices in Kirov, Penza and Pochev as well as some specific projects such as the emergency response training organized last year in Shchuch'ye.

This year we have also financed two thousand emergency radio receivers that were distributed to the households around the Kambarka destruction site.

These receivers automatically switch on when receiving a specific signal, and emergency information and instructions can be communicated in this way to the population. About 70% of households around Kambarka have been equipped with this system.

Let me also note that we were pleased to learn that recent public hearings for the population concerned by the Maradykovsky site, organized in Kirov by the Federal Agency for Industry, were conducted in a very professional manner and that the dialogue was fruitful and intensive.

Before concluding, let me make three more remarks.

First, generally speaking, we continue to be satisfied by the way our projects are being managed by our Russian partners. We appreciate the partnership with Russian colleagues. The coordination of our work is efficient and our communication channels are now well established at both working and higher levels. In particular, I wish to note that the Federal Agency for Industry has now provided all relevant documents we requested for our projects.

Second, it remains our ambition to keep overheads and general expenses as low as possible.

I think we have so far been fairly successful. According to our latest estimates, 93% of the funds allocated by our Parliament to assist Russia in the destruction of chemical weapons are actually used to buy equipment and services in Russia. 7% only are spent on salaries, travel, translations, experts' fees and public relations. This percentage could be further reduced if for instance the Federal Agency for Industry could write to us and send the documents in English.

Third, our parliament is aware of the steadily increasing oil and gas revenues of the Russian State, and some of our parliamentarians question whether it is still appropriate under such circum-

stances to continue to assist Russia with Swiss taxpayers' money.

We therefore welcome the continuous and substantial increase of the Russian budget allocated to chemical weapons destruction, and the fact that Russia has reaffirmed its commitment to respect the final destruction deadline of 2012.

We are convinced that this year's role as chair of the G8 will provide added incentives for the Russian government to redouble its efforts to make fast progress towards the complete elimination of chemical weapons. We encourage it to continue on this path, and we remain committed to assist it with our modest contributions.

National dialogue forum on the implementation of the chemical weapons convention in the Russian Federation



***A. Mathiot,
Director of the G8 Global Partnership
Programme for France***

It is the first time that France has taken part in this national dialogue and I thank Green Cross wholeheartedly for giving me this opportunity. It is both an honor and a great pleasure for me.

France has been a stakeholder in the G8 global partnership since its creation, but it is only since 2004 that bilateral cooperation actions have been undertaken, with the French government giving CEA responsibility for running the program.

France's priorities in this partnership concern nuclear (elimination of weapons-grade plutonium in excess to defense requirements, dismantling of nuclear submarines and securing of radioactive matter), the destruction of chemical weapons and the fight against bioterrorism. Our objectives are to continue taking concrete action to reduce the threat and to develop a long-term partnership between French and Russian agencies and industry in the fields concerned.

Regarding cooperation on the destruction of chemical weapons, France and the Russian Federation signed an intergovernmental agreement on February 14, 2006, which is currently being ratified by the parliaments of the two countries. In parallel, two important projects have been discussed and should start before the end of 2006:

1 – Project to provide technical and financial assistance to set up an industrial environmental surveillance system around the chemical weapon destruction site at Shchuchye in the Kurgan region.

This would monitor the protection zone including the destruction facility, the weapons storage site and the railway linking the two

sites. In addition to the town of Shchuchye, there are several villages within the perimeter of this zone. More than 15 toxic chemicals will be permanently monitored using 11 fixed stations in the protection zone and 9 mobile stations capable of carrying out sampling and analysis anywhere in the protection zone.

These measurements shall be transmitted by radio and processed at a single Information and Analysis Center, where the values will be stored and interpreted. A central analysis laboratory shall complete the facility, measuring air, water and soil samples. This surveillance system has a dual purpose. Firstly, in its normal mode of operation, it should supply information to decision-makers and the population on the impact of the operation of the storage and destruction facilities on the environment, soil, fauna and flora. Complex modeling tools will enable pollution maps to be drawn up. Secondly, if there is an incident or accident, the system should play a part in crisis management and should supply decision support information to the authorities, based on diffusion models of the toxic chemicals in the atmosphere. The operators of the destruction facility will thus have available the information provided by the three co-existing surveillance systems: the sampling system set up in the industrial zone itself for process monitoring, financed by the United States, the health and epidemiology surveillance system financed by Switzerland, and the industrial environmental surveillance system financed by France for a sum of more than 6 million euros. An application agreement for the Franco-Russian intergovernmental agreement will soon be signed between ROSPROM and CEA for this project, for which the necessary contracts are currently being discussed with the aim of commencing the implementation phase in early 2007.

2 – Project to finance equipment for building 1A of the Shchuchye destruction site.

Building 1A houses the second destruction line of the site, and the United Kingdom, Canada and other donor countries have decided to provide aid to the Russian Federation by financing the industrial equipment for it, necessary for the destruction operations. France has decided to contribute 6 million euros to this project. The United Kingdom is coordinating the donors, of whom Canada is the

largest. For reasons of speed and efficiency, so the facility can be started as soon as possible, the French funding will be managed by the United Kingdom, as will Canada's contribution. The funds are already available and should be able to be used in 2006.

Ladies and gentlemen, during this presentation, I have tried to show you how much importance France attaches to this cooperation between our two countries on the destruction of chemical weapons, a cooperation that is an important part of our cooperation program within the G8 global partnership. We are aware of the difficulty of completing a program of this kind in the Russian Federation and of the pressure we are under from the fact that the deadlines set by the Chemical Weapons Convention are fast approaching. Despite this, these operations should be carried out under proper conditions of safety and protection of the environment and of the population. This cooperation has given the CEA a chance to form a good relationship with the Federal Agency for Industry and the operators involved in this program, and with the other countries contributing to the technical assistance. We are pleased with the progress of our projects, despite some unwieldiness in the administrative system at times, and I hope that this collaboration will continue to develop over the next few years.

Swedish assistance to the Russian chemical weapons destruction programme



***T. Thyberg,
Second Secretary, Embassy
of Sweden in Russia***

Since the early 1990s, promoting the disarmament and preventing the spread of Weapons of Mass Destruction has been a focus of Swedish bilateral co-operation with Russia.

This is partly because disarmament and non-proliferation are at the core of Swedish foreign policy. But it is also because, being neighbors, Sweden and Russia have a strong regional interest in such issues as the safe dismantling and disposition of waste from decommissioned nuclear submarines, as well as the destruction of chemical weapons stockpiles.

Before joining the G8 Global Partnership in 2003, in the period between 1992 and 2002, Sweden spent 120 million dollars on the areas subsequently defined as Global Partnership priorities. Since then, in the 2003 to 2006 period, an additional 32 million dollars have been allocated.

Swedish co-operation with Russia in the field of chemical weapons destruction began at the destruction plant in Kambarka in the early 1990s. Our co-operation in this field has focused on public outreach and information, risk assessments and medical equipment. Since 2005, Swedish contributions in the field of public outreach have been channeled through the Green Cross.

Being a minor player among Russia's co-operation partners in chemical weapons destruction, Sweden has chosen to focus quite narrowly on working with the communities directly affected by the activities at chemical weapons destruction plants in Russia, and strengthening the ability of civil society to make its voice heard in the destruction process. This is an area where Sweden has a clear competitive advantage.

In order to overcome the high transaction costs incurred when many small donors contribute under individual agreements, we have found it

useful to pool our resources with other donors in capital intensive areas such as infrastructure development. This has happened in Shchuch'ye, where Sweden has contributed 750,000 dollars to British projects.

Another reason why we have found it useful to pool our resources is that Sweden has no bilateral agreement with Russia specifically covering co-operation in the field of chemical weapons destruction. Partly, this is because there is no natural implementing agency on the Swedish side in chemical weapons destruction comparable to, for instance, the Swedish Nuclear Power Inspectorate and Swedish Radiation Protection Authority in the nuclear field. Piggy-backing on the bilateral agreements of others has therefore been a practical solution. We are very pleased with this method of three-way co-operation with Russia and the United Kingdom, and remain grateful to the United Kingdom for providing this opportunity.

The future of Swedish support to chemical weapons destruction in Russia is currently somewhat uncertain. Sweden is gradually phasing out its development co-operation with Russia, in line with a shift toward a clearer focus on poverty reduction in our global policy for development co-operation. Our development co-operation is increasingly being redirected toward the world's poorest countries.

The Swedish government has made it clear however, that in spite of this, Sweden will continue to contribute to the objectives of the G8 Global Partnership in Russia.

Netherlands assistance to the Russian chemical weapons destruction programme



***F. van Beuningen,
Special Advisor Security, Non-Proliferation
and Arms Control Ministry of Foreign
Affairs, The Hague, The Netherlands***

It is an honour for me to be here and present some thoughts to you on the Dutch support to the destruction of chemical weapons (CW) in Russia. As I am the last speaker in row of eight and it is lunchtime, I will be brief. I will not report on projects, as other speakers have done that quite extensively.

My name is Frank, so I will be frank. I will put a question before you. The question is: why should the Netherlands support a rich country like Russia with destruction of CW? Why should the Netherlands support the Russian Federation – a country with lots of natural resources, with a well educated and highly developed expertise in the field of Weapons of Mass Destruction (WMD), with the destruction of its stockpiles of chemical agents? Later I will get back to this question, let me first say a few words on the actual assistance that the Netherlands is providing.

Next year, in May, it will be the tenth anniversary of the Chemical Weapons Convention. That is the international treaty that bans the development, production and use of chemical agents and, relevant for us all gathered here today, requires the destruction of existing stockpiles. In the Netherlands, in The Hague we will commemorate this important anniversary, which, by the way, is also an important deadline for those state parties, like Russia, that possess CW. At that time, May next year, the Netherlands will have spent about ten to eleven million Euros on assistance to the Russian Federation for the destruction of CW. I leave out other WMD-destruction programmes the Netherlands also supports.

In the Dutch assistance to the destruction of CW in Russia, one might make a distinction between hard ware and soft ware. The

hard ware consists of the support we gave and continue to give to build and make work destruction facilities in the Russian Federation. The Netherlands, in cooperation with partners like Switzerland, the UK, Canada and others, has contributed to the destruction facilities in Gorny, Kambarka and Shchuch'ye. Mr. Harrison has spoken at length about Shchuch'ye, so I will not go into that. I only want to mention that the Netherlands has an amount of about four million Euros available for Shchuch'ye, on top of what was shown in the chart. The soft ware, if I can phrase it that way, consists of the support the Netherlands gives to the Izhevsk Public Information Office, the assessment study on social conditions in the Shchuch'ye area ("Deadly Weapons, Dire Needs") and the financial support we give to conferences like the one we have today. They are important because they help generate political and public support for the destruction of CW. Thanks to Global Green/Green Cross for their activities that help to bring this support about.

Now allow me to get back to my question.

The Netherlands will have election on the 22nd of November. Suppose a member of the then newly elected parliament would ask me: "Why does the Netherlands support a rich country like the Russian Federation with the destruction of CW?" My answer would be: "Because it is in our security interest to do so". That answer might satisfy a member of the Dutch parliament. But there is a fair chance that it might not.

Why do I put this question before you? Because it is not enough to say that the international community should honour its commitments vis-a-vis the Russian Federation. The Netherlands will. But I when I return to the Netherlands I need to be able to make a convincing case. That is where you can help me. I know that there are good reasons to assist the Russian Federation with the destruction of CW, but they should also come from you. Again, to repeat that we should honour our commitments will not do the trick. In the political system like we have in the Netherlands, one needs oil – that is arguments, reasons, a line of reasoning- to make the machine work.

Some of the reasons may be that CW are an international security threat if they are not taken care of properly. Then there is the

risk of proliferation. CW might fall in the wrong hands. Criminals might wish to sell them and who knows where they then end up? In the hands of foreign governments that might even contemplate actually using them? They might end up in the hands of terrorists. Existing stockpiles may become a target for terrorist threat or attack. Aging stockpiles, unattended to, may become a liability to public health and the environment in the Russian Federation.

So, yes, there are not only good, but very good reasons for the Netherlands to assist Russia with the destruction of CW. But let me end by saying that you would help me a lot if today and tomorrow, I would hear more reasons that help me make a convincing case to a new parliament in the Netherlands after this month's elections.

Thank you for your attention.

Kurgan oblast Duma efforts to provide increased social guarantees for the Shchuch'ye population in the emergency planning zone



***M. Islamov,
Chair, Kurgan oblast Duma***

Dear forum participants! The issue of complying with requirements for chemical weapons destruction (CWD) under the Chemical Weapons Convention (CWC) fall under the auspices of regional authorities, and we are now organizing these efforts for the Kurgan Oblast.

We are grateful to all the participants in the Federal Chemical Weapons Destruction Program for constructively cooperating to provide information and raise the level of awareness of the public. Due to this work, we have been able to reshape the attitude of the local population living in emergency planning zone from sharply negative and against CWD facility construction, to an attitude of partnership and understanding of the need for a CWD facility.

The Shchuch'ye district is part of my constituency. That is why a major part of my work as a Duma deputy is to spend time in this region in order to better understand existing problems and to find solutions. The absence of social guarantees represents the major concern of the population, the Oblast administration, and the Duma. According to the 76th federal law, "On Chemical Weapons Destruction", social guarantees should have started on 1 January 2005. However until now the Russian government has not taken any normative legal action that would regulate the implementation of social guarantees.

Through its 07 November 2005 № 658 decree, the Russian government approved the perimeter of emergency planning zones around CWD facilities and a list of populated districts that fall within these zones. However, social guarantees for the population living in these areas have not yet been established. For the last four years people have

asked us what social guarantees they will receive for living in such a dangerous zone, but we have not been able to provide them with any answers.

I would like to remind you that protection of the population is taken very seriously while storing, transporting, and destroying chemical weapons. I hope the public will agree with me that, notwithstanding all our economic problems, a federal provision should be adopted and fully implemented to provide social guarantees and compensation to the population in emergency planning zones around chemical weapons destruction facilities in the event of a harmful incident.

In order to accelerate a federal response, we sent a request to Mikhail Fradkov, Prime Minister of the Russian Federation, on 26 September 2006 regarding the necessity to determine the amount and types of social guarantees to people living in emergency planning zones around CWD facilities. Until today, we have received no response.

This issue is of high concern for the population of the Kurgan Oblast due to historical precedents. In 1957 some settlements in the Oblast were affected by radioactive pollution after an industrial disaster at the Mayak facility. Radioactive waste was dumped into the Techa River which runs through populated settlements in the Oblast. Even today, almost half a century later, the social guarantees promised to the affected population have not yet been disbursed.

Regarding the issue of population safety, we are particularly worried about the absence of an emergency alarm system in the Shchuch'ye district. One of the reasons is that the necessary cable to maintain such a system has been stolen by the numerous valuable metal hunters in the region. Metal hunting for these individuals is the main means of survival for numerous families in the region.

Another possibility may be to apply the experience of other countries and give each family living in the emergency planning zone a wireless receiver set to a particular wavelength used only to broadcast an emergency message. If we consider that there are approximately 8,000 families in the Shchuch'ye district, and that the price of each receiver is about 400 rubles, the cost would not be high. Moreover, the receivers could be produced locally by our Kurganpribor factory. During all my meetings with the population I am also reminded that there are no paved roads, and therefore no means of quick evacuation. Regrettably, many things promised by federal authorities during the

third Russian public hearing on CWD issues that took place in our Oblast ten years ago – in June 1997 – have not yet been received.

In general, the construction of social and cultural facilities promised with federal financial support is being developed at an unsatisfactory rate. For example, only 37% of the water supply pipeline has been constructed, and construction of a waste and sewage disposal system has not yet been started. Due to the status of this work, we have sent the Federal Agency of Industry a request for an additional public hearing in Shchuch'ye, and we still await a response.

Dear colleagues! I would like to draw your attention to one more issue.

Any social infrastructure built within the framework of the Federal CWD Program is then transferred to municipal authorities for maintenance. Many of these buildings were built based on the most modern norms, and they demand a significant amount of funding to maintain them, sometimes greater than other buildings maintained in the municipal budget. Let us be realistic! The Oblast does not have the means to support such buildings and systems. And one cannot maintain them at the expense of other buildings. Therefore, I am proposing that the federal budget also cover the maintenance of the social and cultural infrastructure being built on Russian territory within the framework of the Federal CWD Program. A separate line should be entered in the federal budget for maintenance support, or the federal authorities should allocate other support to certain regions. Either way, support from the federal level would allow for a purposeful use of these finances and for a reduction in the bureaucratic process.

Another problem is the lack of funds from the region and Oblast budget for implementing the high priority national health project in the Kurgan Oblast. I am offering to make some changes in the financing of this budget. I am recommending that for the population in the CWDF emergency planning zones, an additional line should be introduced into the federal budget. The amount should be calculated per individual in need of preventive health measures and multiplied by the number of individuals. In my opinion, this would be the most appropriate form of financing.

In addition, federal authorities should help us attract large commercial companies to invest in our Oblast, which could create an influx of capital into the municipal budgets. However, the opposite is evident

in the Shchuch'ye district. Although there is a large volume of commercial activity being carried out in this region, local authorities receive very little from this business. In the meantime, municipal authorities incur extra costs from such commercial activities including repair of the roads damaged by the transportation of heavy machinery.

At the moment, the tax code envisions that these companies should be liable for tax. However, the current tax mechanism lacks tax accountability for local authorities where the work is implemented, as well as any enforcement mechanism. Our Oblast Duma is preparing a legislative initiative that would make changes to the Tax Code in order to make it mandatory to transfer a percentage of the taxes owed by commercial companies performing work in a municipal region to the municipal budget. I believe such an initiative will find support among the region's hardworking employees.

It is my opinion that one of the conclusions from today's forum is the need to reflect upon the necessity of a legal foundation under the Federal CWD Program that must be updated through legislative and budgetary measures in order to adapt to constant changes and to the program's and population's needs.

Today all participants in the chemical weapons destruction process understand the need to protect the main national treasures of each country – its people and its environment.

Thank you for your attention.

Chemical weapons destruction in the Kirov oblast



***M. Manin,
Director, Conventional weapons
department, Kirov oblast administration***

Ladies and gentlemen! First of all, let me thank the organizers of this dialogue for inviting me to participate and for the opportunity to make a presentation.

There are about 40,000 shells containing 7,000 tons of toxic chemicals in the Kirov Oblast. This represents 17.4 % of the total Russian chemical weapons stockpile. Some of the shells stored here are fifty years old.

Aerial bombs and missiles filled with a mustard-lewisite mixture and organophosphorous compounds must be destroyed. The amount of mustard-lewisite mixture waiting to be destroyed is 150.6 tons, while the quantity of organophosphorous compounds includes 232.95 tons of sarin, 1,972.14 tons of soman, and 4,574.73 tons of VX.

According to the Federal Chemical Weapons Destruction Program, the first destruction line at the Maradykovsky Chemical Weapons Destruction Facility (CWDF) was launched on September 8, 2006. The second line is expected to become operational in 2007. Both lines should complete destruction of all stored agent in the oblast by 2012. At the moment, VX is being destroyed.

The general contractor for building the facility is a small public-private enterprise, "Energy," headquartered in Moscow. The overall project manager is a state-owned federal company, "SoyuzpromNIIproject," also headquartered in Moscow. It has developed a technical-economic cost estimate for CWD in the Kirov Oblast. The maximum destruction capacity at Maradykovsky is 2,000 tons/year. The main technology developer for the facility is the State Scientific Research Institute of Organic Chemistry and Technology in Moscow. A two-phase technology has been chosen, which would, in order:

- disarm the missile shells,
- perform sodium hydroxide neutralization/detoxification,

- perform thermal treatment and degasification, and
- burn the reaction byproduct (reaction mass).

Two years prior to completing the destruction process, federal and local authorities will start discussing the possibility of converting the destruction facility to other purposes. Scientific and technical studies will be conducted before such a decision will be taken.

According to the Federal CWD Program, the total amount of capital needed to be invested in the Maradykovsky facility is 9,310.5 million rubles, including 6,443.39 rubles for the construction of an industrial zone. The construction of the facility has created 1,350 additional jobs. The facility is financed entirely by the Russian Federation. In addition, Switzerland offered in 2006 to help Russia with 55 million rubles for building an energy supply pipeline at Maradykovsky.

According to the Chemical Weapons Convention, all CW stockpile and destruction facilities must undergo international inspections. In 2006, inspectors of the Organization for the Prohibition of Chemical Weapons (OPCW) twice visited the Maradykovsky facility. The work of international inspectors in March was focused on safety issues at the facility. As a result, the storage conditions and environmental safety were checked. The inspectors concluded that the facility fulfills international storage requirements, and no environmental pollution had been detected. The first line for destruction of VX agent was verified in August, and since September international inspectors have been stationed at the facility on a permanent basis.

On September 8, 2006, the OPCW Director General Rogelio Pfirter underlined that the facility was ready to destroy CW, and underlined the unique nature of the VX destruction technology at Maradykovsky.

A couple of federal decrees have been approved by the Russian Federation Government to create an emergency planning zone of 2,000 meters radius from the industrial edge of the Maradykovsky CWDF. These decrees are: 1) № 657, dated 07.11.2005, which adds to the Decree of the Russian Federation Government from 29.12.2004, № 867, "Approving an emergency planning zone around CWDFs;" the emergency planning zone at the Maradykovsky CWDF in Kirov was set at 891.7 square kilometers. 2) № 23 Sanitary-protection statement of 26.09.2005 by the chief federal doctor of the Russian Federation, which sets the sanitary-protection emergency planning zone to 2,000 meters around the border of the CWDF industrial zone in the Kirov Oblast.

Other measures include a clause in the Federal CWD Program which requires a 10% investment of CWD projected costs for constructing social infrastructure, at this moment projected at around 940 million rubles. Consequently, since 2002, 124 apartments have been built and delivered to tenants. They were built in three stages of 27, 67 and 30 apartments. Additionally, an excellent school with a capacity of 504 students was built in the Orichi center.

In 2003, in response to a request from federal authorities, the Oblast government prepared and approved a list of objectives for social infrastructure development in the Kirov Oblast in order to obtain federal funds. With federal funds, an additional 138 apartments were built (in three stages of 48, 60 and 30 apartments), and a consultation and diagnostic clinic was built in the Orichi center. These became operational at the end of 2005.

A subject for special attention – sewage facilities in the village of Mirnyi which will serve both the industrial CWD zone and the Mirnyi settlement.

At the moment the development of a blueprint for the water supply in the city of Kotelnich is under consideration, as well as a blueprint for an inter-district health diagnostic center. The total cost would be about 300 million rubles. As Mr. V.P.Kapashin, head of the Federal Agency for CW Stockpile Destruction, noted, the construction of a water supply pipeline from the main water supply line to the CWDF facility for the city of Kotelnich will be included in the 2007 defense budget request.

During 2004-2005, doctors from Saint Petersburg and Moscow had carried out a comprehensive public health examination of the Orichi and Kotelnich districts in the emergency planning zone. A database of examined people was created for this effort. More than 6,000 people were examined, including 3,000 in Orichi, 2,500 in Kotelnich and 500 civilian and military personnel at the CWDF. Furthermore, local doctors were taught how to examine patients and monitor the population for certain conditions. As a result, specialists at the Center for Epidemiology and Hygiene of the Kirov Oblast monitor water and air contamination, local vegetation, soil and cattle conditions, as well as the snow layer in the emergency planning zone.

The Center has a well equipped mobile environmental testing laboratory. It can use ten indicators to test the level of air contamination.

The Center's main laboratories can also determine the level of salt and heavy metal toxicity in drinking water and food products. According to test results, no impacts of CWDF activities on humans have been identified. Due to constant testing of drinking water, it has been determined that the water has been polluted by natural minerals such as iron, manganese, and other heavy metals.

On 18 April 2006, at a meeting to coordinate cooperation among Oblast executive authorities for the CWD operation in the Kirov Oblast, the following two institutions presented medical reports based on their examination of adults and children in the emergency planning zone: the Center for Environmental Impacts on Children of the MedBioExtrem Federal Agency under the Ministry of Public Health of the Russian Federation in Moscow; and The Scientific Research Institute of Hygiene and Human Pathology and Ecology of the Federal Medical-Biology Agency of the Russia Federation in Saint Petersburg. Their studies showed that CWDF activities have had no negative influence on public health.

The presentations showed that the level of diseases for the districts in the Kirov Oblast in the last five years do not exceed the average level for the Oblast as determined by examining disease levels in the Kumenskiy district. At the moment, as determined through public health monitoring, the CWDF has had no hazardous impact on the public health and the environment in these regions.

The environmental situation around the CWD stockpile and destruction facility has not changed much during the 2004-2006 time period. A federal environmental control and monitoring system has been put in place around CWD facilities.

On 20 July 2006, a report on emergency preparedness for the CWDF population was presented at the Oblast authorities' executive committee meeting by the head of the Civil Protection and Fire Safety Department of the Kirov Oblast. The committee includes Oblast and local authorities and other organizations involved in the CWD issue.

The Department of Civil Protection and Fire Safety has developed a special series of measures designed to provide collective and individual civilian protection as well as environmental protection. An automated alarm system has been established to detect any possible toxic chemicals in the environment.

Regarding protective equipment, at the moment, we have a 105% stockpile of gas masks, including smaller-sized ones for children and students. We have created 78 centers to distribute the protective equipment in case of emergency (27 in the city of Kotelnich, 7 in Orichi, and 44 in rural areas around Kotelnich and Orichi). Written instructions on what to do in case of an emergency have also been distributed to the population. Seminars and educational meetings are also being carried out. In addition, there are 25 alarms in the Kirov, Orichi, and Kotelnich districts and at the CWDF. Four additional mobile alarms can be used to alarm farm and rural laborers working outside the cities. Furthermore, 200 radios will be installed along the cable lines in the Zaizev, Leninskaya, Iskra, Naimushiny, Yurievo, and Skurikhinskaya villages in the Kotelnich district.

Oblast authorities cooperate closely with Green Cross Russia's Public Outreach and Information Centers (POIOs) in Kirov and Mirnyi. We work together to create a positive attitude toward the elimination of the CW arsenal at Maradykovskyy. Green Cross Russia organizes regular discussions with specialists with various levels of the local population, including teachers, librarians, journalists, rural leaders, and councilors. They also organize roundtable discussions with district and Oblast leaders. Additionally, Green Cross Russia provides at its own expense written materials, brochures and newsletters with the latest updates on the status of CWD and on other educational topics.

The Green Cross publication of a book, "Maradykovo on Vyatka", written by T.Ya.Ashimikhina, Director of the Green Cross Kirov POIO, has received a lot of attention and appreciation from the public, and the authors have won a contest on environmental and nature protection organized by the Oblast.

Green Cross employees in Kirov and Mirny always participate in inter-university practical research conferences and roundtables on social-environmental problems associated with CWD in the Kirov Oblast.

Another excellent activity of Green Cross Russia that I would like to finally mention is the annual summer camp for children living in the emergency planning zone at Maradykovsky. Both children and parents express their gratitude for this opportunity to receive a healthy vacation through the activities at the camp.

As a result of all this work, social tensions have decreased and the public-government partnership has increased. Most inhabitants now understand the need to destroy chemical weapons.

The oblast authorities have determined the following the priority guidelines for CW destruction in the Kirov Oblast:

- Provision of environmentally safe storage of CW stockpiles;
- Provision of environmental and health safety during the CW destruction process;
- Protection of the population living and working around the CW stockpile and the destruction facilities.

At the moment, our department, as well as Rostekhnadzor, Rospotrebnadzor, Hydromed, and the Emergency Services Agency of the Kirov Oblast, receive daily reports on air quality testing conducted inside the CWDF (by randomly selecting a number of missile shells during the hydrolysis stage), and air, surface water, and soil tests in the emergency planning zone and the sanitary-protection zones. In conclusion, I would like to underline that there is a constant and tight oversight by federal, regional, and Oblast agencies.

Thank you for your attention.

Social infrastructure construction in Kambarka



***A. Perunov,
Deputy Minister of construction
and architecture of the Udmurt Republic;
Director, chemical weapons department***

Dear Sergei Igorevich, ladies and gentlemen, first of all, I would like to express my appreciation and gratitude to Green Cross Russia for inviting me to participate in this forum and giving me the opportunity to speak.

As you know, the Kambarka chemical weapons destruction facility (CWDF), the second operational CWD facility in Russia, was built in a very short period of time. Two years from now, the inhabitants of the small town of Kambarka will be free of the 6,400 tons of poisonous chemicals inherited from the Cold War.

The construction of the chemical weapons destruction facility can be considered as a new and important page in the 240-year history of this town. It will provide the opportunity for Kambarka to become one of the most well structured district centers of the Udmurt Republic. The growth and development of any city depends on the presence of a modern infrastructure. Today we can fairly say that Kambarka's infrastructure has been constructed with the financial help from the federal chemical disarmament budget.

The town now has a gas supply (with a length of 39.5 kilometers), a sewage system, a waste water purification system, an electric energy supply system, and an electric power station, "Luch", at the CWD facility. In addition, a 30 kilometer road from Kambarka to the border of the Perm Oblast has been built. The old heating supply source has been renovated and additional new ones have been built.

The town also looks more modern with the construction of a new office for the international chemical weapons inspectors and a new health and diagnostic center. The construction of 45 new apartments, which will be finished by the end of the year, will provide homes for the employees of the health clinic and their families. We can also notice construction of new private houses with a total of 11,000 square meters.

Furthermore, a regional center for environmental monitoring was built in the city of Izhevsk. Once all chemical weapons are finally destroyed, all of these new buildings will fall under the control of local authorities.

Responding to a request by the city and district populations for better standard of living conditions in December 2003, the Russian government allocated 935 million rubles under the Federal CWD Program for a number of social and engineering projects. The list of the places to be built was approved by Udmurt Republic authorities and the administration of the Kambarka district. In the end, 18 projects were approved.

As a result, between 2002 and 2006, the following projects were finished:

- Reconstruction of the central heating system with its subsequent conversion to gas fuel (100.84 million rubles);
- Two individual gas heating containers downtown with a reconstruction of heating grids (91.2 million rubles);
- An emergency medical center with a parking lot for 11 automobiles (37.1 million rubles);
- A transit bus station with a 50-seat capacity (18.91 million rubles);
- An administrative building for the Investigative Department of Internal Affairs with 75 workplaces (42.4 million rubles);
- Reconstruction of school № 2 for 500 students (school building);
- Reconstruction of school № 1 for 418 students (school building);
- Communication and signalization networks (14.88 million rubles);
- A public sauna for 48 people with a laundry for 200 kg/day (45.1 million rubles);
- Street gas mains and a State Regional Enterprise (1-3 phases) (105.3 million rubles).

At the moment, the following additional projects are under construction:

- Street gas mains in the town of Kambarka;
- Water and sewage grids in the city;
- Main city roads and intersections;
- Reconstruction of the building for an infectious-disease department at the central hospital in the district;
- A 6-bay fire station in the town of Kambarka.

In 2007, the following projects will be finished and become operational:

- A medical center for inhabitants of the Yuzhnyi district in Kambarka;
- The cleaning and reconstruction of the Kambarka pond (1st stage);
- The reconstruction of the District Administration building;
- BMK-3.

As of 1 October 2006, 786 million rubles have been invested in social infrastructure (this is included in the 935 million ruble calculation from 2004). Today, one of the main challenges includes the calculation of the costs for the 2005 and 2006 projects. However, we believe that federal authorities will be able to solve this problem and will finish all the social infrastructure projects in the city of Kambarka by 2007.

We are facing the big and complex challenge of the construction of the CWD facility in the Kizner district. A technical-economic cost estimate has been developed with the help of the JSC "Giprosintez" organization from Volgograd and project managers of the Udmurt Republic. At the moment the cost estimate analysis is being reviewed by federal authorities.

We need to note that the task of constructing Kambarka was given to a construction firm from the Udmurt Republic, which has created more than 1,000 jobs for the construction of the CWD and other related projects.

The results achieved do not mean that everything went smoothly. Local citizens have had a negative attitude against workers during the construction process, particularly against engineering specialists. Nevertheless, these workers deserve a special thanks and appreciation for the work they have performed.

In conclusion, I would like to say that the Government of the Udmurt Republic is sharing responsibility with the Government of the Russian Federation in fulfilling our international obligation for chemical weapons destruction. Furthermore, our government is responsible to the citizens of the Kambarka and Kizner districts for the expected results of eliminating all chemical weapons, as well as for improving their standard of living conditions and creating a safe environmental situation for now and the future.

Thank you for your kind attention.

Assistance in executing the presidential program for authority and public control of the Briansk region



***L. Komogortseva,
Chairman, committee for the management
of environment and nature,
Briansk regional Duma; Chairman,
Chemical weapons destruction working
group; Member, Chemical sciences society***

The population of the Briansk region found out about the presence of chemical weapons (CW) stockpiles in the Pochep area in the middle of the 1990s. Shortly prior to this, the population of the Briansk region was impacted as well by the resettlement of some Chernobyl families to the region. More than 300 families were moved to the Pochep area. They settled in the Rechitsa village on the Novozibkovskaya street, and only a fence separated them from the CW storage facility.

The population of Pochep, of course, started a campaign against the presence of CW stockpiles in the region. People were worried, and gossip played a major role in increasing their fears. In particular, they were afraid that the chemical weapons would be destroyed right at the storage site. Social tension was at its highest. It was in the midst of endless social protests during that time that a plan for a CWD facility in the region was being developed.

The local authorities acted quickly. The Briansk regional Duma quickly worked on and passed a bill on the CW storage and destruction of the Pochep stockpile. The bill provided insurance to the local population in case of an accident. The bill had to be approved, however, through a similar bill at the federal level.

Under public pressure and lobbying from the interregional social activist organization, "Khimicheskuyu bezopasnost" ("For chemical safety"), the federal government had to revise the concept for the Chemical Weapon Destruction (CWD) Program. The first step was a request for a program by the Ministry of Defense and its demand that the program be managed by a civil structure – the Federal Agency for Industry (FAI). At the same time, it established relationships with the local populations living nearby the storage facilities. Green Cross Russia became engaged at that time, and

10% of the money spent for CW destruction by the federal government was allocated for social infrastructure. This policy set up close collaboration between local and regional authorities, which solved some of the social tension. Another important part of the CWD Program relates to international inspections under the Chemical Weapons Convention (CWC), which include monitoring of the environment and of the local population's health and safety.

In 1996, under the leadership of the Briansk regional governor, a committee for CWC implementation at the Pochep CWD facility was established. The committee included representatives from different regional departments in charge, and representatives from the "For Chemical Safety" organization and from Green Cross Russia NGOs. At the moment, there are several environmental monitoring programs being implemented at the storage and destruction facilities, as well as public health monitoring programs for the population within the emergency planning zone, representing a total of 36,500 people.

Moreover, in 2005, at the governor's proposal, the Committee for the Management of the Environment and Nature was created in the regional Duma. The committee includes a Chemical Weapons Destruction Working Group. In July 2006 this group of deputies visited the Pochep site, and reported back to the general assembly and to the population. They thought that the stored chemical munitions were in good shape, and made a few recommendations for better storage conditions. They also expressed thanks to the military commander and staff in charge of the site. Previously, the group of deputies had held various meetings on the state of social infrastructure, the medical analytical center, and the gas supply to the village. They were also shown the status of construction of the CWD facility.

The Working Group chairman was also present at the testing of the second-stage low-temperature oxidation that took place in Perm, a suburb of St. Petersburg, at the Applied Chemistry Institute. She reported back to the regional Duma on the positive results. This past May, the regional Duma passed a bill on environmental and population protection from CWD on the territory of the Briansk rayon. The law determines which federal executive powers the local authorities can override concerning CWD in the rayon.

This expanded control by regional authorities provides the possibility for the destruction of these Cold War weapons (7,500 tons of sarin, soman and VX), stored here for more than 20 years, in a timely fashion.

An environmental investigation of natural and man-made pollution sources from the chemical weapons destruction facility at Maradykovsky



***V. Perestoronin,
Director, Environmental protection
and natural resources agency
of the Kirov oblast***

Dear colleagues! Today, at our forum we have a spirit of cooperation among activists, scientists, and the public, and I believe that this is a result which we have achieved due to mutual understanding of each other.

The emergency planning zone at Maradykovsky is about 900 square kilometers and has a radius of 25 kilometers from the facility. The city of Kotelnich is located in this vast territory, as well as other large settlements such as Orichi, Mirnyi and Istobensk. Fifty thousand people live in the area, and there are all kinds of industrial and agricultural activities. There are 685 sources of industrial waste and polluting substances. For example, in the area between Kotelnich and Orichi alone there are 15 industrial platforms with 71 operational sites, as well as 16 stockpiles of poisonous chemicals and pesticides. This analysis was carried out as part of the environmental monitoring for the chemical weapons destruction (CWD) facility.

All these sources of negative pollution are located in areas where people live and work according to old customs and traditions. It is important to underline that the main sources of pollution for the local population come from outside the CWD facility. At the same time, one should keep in mind that the CWD facility is under federal regulations and control, while the other industrial sources are under regional control implemented by our agency.

At the end of 2005, this agency proposed an environmental impact assessment for the biggest settlement in the emergency planning zone. The study, launched in 2006, was conducted in col-

laboration with the Saratov Institute for Industrial Ecology. One of the objectives was to determine all man-made sources of pollution in the region before the CWD facility starts operating compared to sources during facility operations.

Nine months into the study, we have been able to collect data on the environmental pollution sources in Kotelnich and Orichi. We determined the levels of emissions pollution from industrial plants and from industrial vehicles going through the region on residential building surfaces, on surface and underground water, and on recreational areas. We also carried out an investigation of solid waste dump sites.

According to laboratory analysis, there are a number of pollutants in excess of the maximum allowable concentration (MAC). Copper, for example, was found 2 to 5 times above the MAC in the Istobniza and Vyatka rivers and up to 12 times above the MAC in the Ilovyatka river. Nitrogen was found 5 times above the MAC in the Braduginskiy pond in Orichi. In addition, gross industrial emissions from stationary sites are released into the atmosphere. In the Kotelnicheski district this happens at a rate of 5,500 tons/year, and in the Orichenskiy district at 2,200 tons/year. The main sources of atmospheric contamination are a commercial power plant, a poultry farm, and a factory in Kotelnich; and heating and engineering facilities in the Orichi region.

Testing for the level of atmospheric industrial emissions has been carried out in the Kotelnicheski region, in Kotelnich, and in Orichi where 26 samples were collected. The main pollutants we are looking for include carbon dioxide, nitrogen dioxide, sulfur dioxide, phenol, formaldehyde, arsenic, and aerosols. Laboratory results do not show any amounts above MAC limits for any of these substances. Furthermore, nine places in Kotelnich and two others in Orichi were checked for potential industrial emissions into the atmosphere. One hundred and five samples of air-gas mixtures were collected. An excess of manganese above MAC limits has been identified.

We are just at the beginning of using such an advanced approach, as well as in comparing our results with the ones collected from the environmental monitoring of the chemical weapons destruction facility. This comparative approach, together with an

automated sample collection system, will let us fully monitor the entire emergency planning zone. Therefore, we can always identify any pollution source in the emergency planning zone; we can take measures at the regional level; and we can alert the population in a timely manner.

We plan to use this acquired expertise and data for compiling environmental reports and when planning for actions, as well as when developing socio-economic statistics for the region.

Such a system of environmental control and monitoring, in cooperation with the federal level of monitoring for the chemical weapons destruction facility, is a final step in creating an integral and comprehensive system of environmental monitoring for this region. Lastly, let me emphasize that this system may turn into a regional monitoring system of the entire Kirov Oblast.

Working with the population: an important factor in implementing the chemical weapons destruction program



***V. Leonov,
Program Director,
Green Cross Russia***

At the moment, the consequences of military-industrial activities are so widespread that they may become one of the main components of the global environmental crisis. This is a concern not only for scientists and environmentalists, but also for the Russian Federation government, for the local population and the inhabitants of emergency planning zones, as well as for the international community.

The Chemical Weapons Convention (CWC) entered into force in 1997. This was the first international treaty covering the prohibition and destruction of a whole class of weapons of mass destruction, capable of causing not only serious environmental consequences but of also affecting the entire human race. This has turned out to be a significant event.

The beginning of the disarmament and destruction process of Cold-War weapons in Russia coincided with the process of restructuring social values and democratic norms. It was during this period that the destruction of chemical weapons stockpiles has begun. Information on the construction of chemical weapons destruction facilities (CWDFs) was made available for the first time to the public describing these most dangerous agents. This is a reason why the population in the stockpile regions was so concerned about this issue. The social tension was high due to lack of accurate information about the impact of these weapons on people's health and the environment.

When the CWD process started, there was an insufficient, unfocused public relations campaign that should have had the goal to:

- inform the public,
- shape public opinion and gain public confidence, and
- overcome social tensions.

Due to a lack of public information as well as the destruction work not being carried out in an open public forum, many fears and rumors had spread through the local population. This had created phobia and numerous protests by the local population. Although intended well, these protests had created a negative environment and a lose-lose situation.

Green Cross International is a not-for-profit environmental organization created at the initiative of the international community to solve the most current and pressing environmental problems. One of its main programs is the "Legacy of the Cold War Program", which advocates the safe and sound elimination of weapons of mass destruction by:

- informing the public about environmental problems of the Cold War legacy,
- forming a constructive and positive public opinion on the necessity to solve these problems,
- facilitating cooperation among various stakeholders including the public and government agencies focused on discussing and finding solutions to these problems, and
- taking practical steps to examine environmentally polluted regions and find ways to remediate them.

In addition, we have been able to address and answer the local population's concerns, helped them evaluate the situation and understand the need to destroy these weapons, and provided them with safe living conditions. This has led to a positive public opinion on the issue of chemical weapons destruction.

Concurrently, we focus on the main principles of Green Cross Russia:

Cooperation not confrontation as the approach to solving these problems, working in cooperation and in addition to government efforts in this area,

Side-by-side negotiations among stakeholders,

Reshaping of values from a consumption attitude to an environmentally-safe attitude, and

Thinking globally, but acting locally when trying to solve complex issues.

Working Areas with the Population

1) Informing and educating the population on disarmament issues, chemical weapons destruction, and environmental challenges.

2) Educating and equipping the population for emergency preparedness.

3) Involving the population in decision-making.

These areas are covered through the following highlighted activities conducted by Green Cross Russia:

Creation and support of Public Outreach and Information Offices (POIOs).

This is the basic platform in a region to conduct different activities for informing the population, transferring knowledge, developing awareness, and helping in the process of acquiring appropriate official documents, background literature, and mass media materials.

At the moment, we have eleven functioning offices in six regions around chemical weapons destruction stockpiles and facilities.

Next year our POIOs in Kurgan and Shchuch'ye, opened in the same year as the ratification of the Chemical Weapons Convention, will celebrate 10 years of operation.

It is important to note that these are not only informational centers; they also serve as "city-halls" – the de facto main social problem-solving centers for the community.

Support and dissemination of informational materials, and the organization of informational meetings and educational seminars.

It is a known fact that the lack of information creates rumors. That is why we try to conduct as many meetings as possible with the local population and with specialists and representatives of agencies and organizations participating in the federal Chemical Weapons Destruction Program. Informational seminars, lectures, and roundtable and panel discussions with primary sources are carried out with the population at various levels, including:

- Local leadership,
- Leadership of private and publicly-owned companies and industries,
- School teachers and medical workers,
- Post office employees and cultural affairs workers, and
- Public organizations.

Illustrative of our work is the fact that last year our POIOs conducted more than 1,100 activities with the local population, and more than 45,000 people attended. For the last nine and a half years, more than 100,000 people have somehow been impacted by the work of the Shchuch'ye POIO alone.

Working with children

Work with children from the community is carried out by all our offices. It takes the form of additional study courses, clubs, various con-

tests and events, and health camps on safety fundamentals. In the last ten years, Green Cross Russia offices have worked with many children, some of whom are now experts and active participants in the CWD process. Children are the future of our country, and this future depends on how they are prepared for life.

Working with mass media

Traditionally, mass media has a big influence on society. We believe it is important to conduct educational seminars for journalists. We know that, in its initial stages, chemical weapons destruction was filled with many frightening stories in newspapers. Green Cross Russia seminars and organized tours for journalists at CWDFs and at social infrastructure projects have helped journalists produce realistic, objective, and constructive articles.

Next Steps in Our Work.

One of the next directions in our work is to help local officials resolve safety issues. **One activity will involve conducting studies on civilian safety and the status of emergency preparedness.**

Every year, along with regional services, we conduct emergency preparedness training for inhabitants. We teach them how to use protective equipment, how to conduct an evacuation of the population, and other such tasks. I have to say that there is an insufficient number of such training efforts and, moreover, such training has been organized only for the first time in some regions. This is particularly important because local budgets for civilian safety and emergency preparedness remain very meager.

The evaluation of public health status by independent experts is also very important.

The local population around CWDFs is very concerned with the issues of public health. In order to be able to properly explain CWD work and to develop a positive and constructive public opinion, we need to know the real public health situation of people living in CWD areas, and the reasons for possible existing illnesses. At the very beginning of the CWD process, Green Cross Russia carried out baseline public health studies in some regions. These studies could not identify any direct impact of chemical weapons on the population's health. Now such work is carried out by state authorities and has obtained similar results.

Risk analysis studies

The purpose of these activities is to inform the population and the local authorities on possible disaster consequences in regards to CWD. The level

of credibility of state authority regarding CWD work in Russia depends highly on the availability and truthfulness of their answers to these questions.

Green Cross Russia has conducted risk analyses of chemical weapons stockpile and destruction facilities for more than ten years. As our experience has shown, it is not enough to predict disaster consequences from a purely scientific perspective. It is important to make this information available to the public, and to organize it in a way that is understandable to the population.

Our last project in this area was done in collaboration with Udmurt State University. We carried out a risk assessment study at CWD facilities in the Kirov and Penza oblasts and regions. One unique characteristic of this project is that it was developed for the non-expert reader. It can project a prognosis for a scenario with a wide range of initial conditions. Whoever looks over the study from the local population can easily understand and learn about the estimated disaster-affected area, the full degree of damage, and the necessary time needed to evacuate the area. As the calculation shows, the affected areas are very localized, which allows for enough time to evacuate the area on foot.

Involving the population into the decision-making process

Green Cross Russia involves the population into the decision-making process through the following two activities:

Carrying out public expertise and public hearings

For the first time in the history of chemical weapons destruction, public hearings were organized by Green Cross Russia in the Saratov Oblast in 1995. This event was the first of regular public hearings and meetings organized by Green Cross Russia. Through our work public hearings have become a key component in the CWD process. They have allowed us to turn a negative public opinion after the disastrous events in Chapayevsk in 1989 into a positive and constructive one. The process has become as transparent as possible and population has turned out to play a major role in it.

Creating public Citizens' Advisory Commissions (CACs)

Citizens' Advisory Commissions are advisory structures consisting of public organizations, representatives from local agencies, and industry. CACs have only an advisory role and can only therefore recommend actions. The CAC is an essential element in reducing social tension, changing from sharp social criticism of the CWD process to a forum for dia-

logue, and involving citizens into the decision-making process. The first CAC was created with Green Cross Russia support in 1999 in the Schuchansky district of the Kurgan oblast. The CAC is truly a good example of civil society development in Russia. Now we are happy to observe that the CAC acts as a public chamber of sorts at the local level.

Creating a National Dialogue to address major CWD issues.

This is an absolutely new initiative in Russia. It is an open and consultative dialogue among all stakeholders at national and international levels of the chemical weapons destruction process in Russia. Its role is to inform the public on the latest developments and outstanding problems in this area, reduce tension among actors, prevent possible conflicts, and develop a suitable approach for CWD. This event is held annually, and representatives of foreign governments involved in the process and of the Organization for the Prohibition of Chemical Weapons take part as well.

In addition, we also conduct regional forum dialogues. For example, we conducted such a dialogue in October 2006 in the Kirov Oblast. The dialogue was conducted in the city of Kirov. The event was held as a result of requests from local authorities and the population for such a public forum. Many questions and answers were exchanged during this meeting. We have realized that such regional forums are one of the most influential ways for creating mutual trust and establishing grounds for cooperation. As our experience shows, all this work has been enthusiastically accepted by both the population and local authorities as a way to develop a positive public opinion and an inclusive forum to move things forward. Finally, I would like to mention that we do base our work on the needs of the population as seen from social research studies we carry out in all regions.

Start up and operational experience of a chemical weapons destruction facility



***V. Demidyuk, Deputy Director,
V. Kondratjev, Director
State Scientific Research Institute
of Organic Chemistry and Technology
(GosNIIOKhT)***

The beginning of the chemical weapons destruction period dates back to August 1969. The United States Congress at that time prohibited the dumping of 27,000 tons of chemical agents in the Atlantic Ocean. This marked the beginning of transitioning to safer methods for chemical weapons destruction (CWD). A new era began – an era of development of new industrial technology for chemical weapons destruction.

About the same time in the Soviet Union, on 4 October 1969, GosNIIOKhT was appointed by the Central Committee of the Communist Party and by the USSR Council of Ministers as the primary organization charged with developing new industrial technologies for chemical weapons destruction. Today it is called the V.Lenin State Scientific Research Institute of Organic Chemistry and Technology. Since that moment, the development of new CWD destruction was initiated in our country.

The lead initiative in adopting such technology was taken by the United States. Under pressure from large companies such as General Motors, the U.S. government accepted a baseline method of destruction – chemical weapons incineration. The U.S. example was shortly followed by the United Kingdom and Germany as well. As a result, the U.K. incinerated its CW in the 1950's, and Germany a few years thereafter.

In the Soviet Union, prior to adopting a new technology, we evaluated the available methods. We took incineration into account as an equally valid method as all others. However, our country has always been interested in developing two-stage neutralization tech-

nologies. The first stage would involve neutralizing the agent through a chemical process of breaking down the molecules into simpler and less dangerous organic and inorganic compounds. The second stage would mean some kind of treatment of the by-product, the so-called "reactionary mass".

In the 1980's, the United States allowed companies to bid for CWD technology contracts. Following this method, the U.S. government had carefully reviewed and had in its hands about 100 different technological methods by 1993. We carefully studied the results and the technologies represented in this competition. When a technology was offered for first-stage treatment by chemical means, we began to examine which special chemical reagents would best interact with our chemical weapons agents.

In 1993 Russia also opened its first competition for lewisite destruction. The bidding lasted almost two years. In 1994 Russia chose two technologies – basic alkaline hydrolysis (developed by GosNIIOKhT) and an ammonia neutralization procedure (developed by the Nizhny Novgorod University). Further testing showed that alkaline hydrolysis worked while ammonia neutralization would not work in practice, although in theory this seemed like a very good approach.

A second competition took place in Russia in 1995 concerning the choice of technology for the destruction of organophosphorous compounds. Twenty-nine different methods were submitted, but only six of them were selected for further consideration based on the fact that they had been previously tested on chemical agents. One company withdrew its technology of adiabatic compression from the bidding process. Why, one might ask? Because its parameters were lower than US imposed standards for incineration technology.

Three technologies were finally selected as a result of this process: a basic two-stage neutralization process, a "neutralization-in-place" process (neutralization takes place inside the munition), and a thermal destruction mechanism. In 1998, bidding took place for the technology choice for destruction of mustard and of a mustard-lewisite mixture. A two-stage monoethanolamine neutralization process was chosen.

Criteria for choosing the right technological process had been developed for nearly twenty years. In its initial stages of developing

selection criteria, GosNIIOKhT developed 130 various criteria, but by 1995 only eighteen criteria were retained from which a quantitative rating could be obtained during the evaluation process. Two different selection mechanisms were chosen on two different occasions. Direct voting through hand-raising by selection commission members was used during one bidding session, and quantitative ratings were calculated through the eighteen parameters in another session. The two different selection methods chosen in 1995 and 1998 yielded similar results and identified identical technologies.

Selection of CWD technologies through a competitive bidding process had provided a good possibility for the creation of the CWD process. The technology designers passed the blueprints on to the project managers who then worked closely to prepare a project memo detailing all necessary steps. The first step involved creating a budget and a cost estimate for the CWD facility, then developing a feasibility report, and finally obtaining all the necessary permits. Once the feasibility report was approved, other issues would be tackled.

The first of these issues was the safety of the destruction technology and the creation of immediate response zone parameters. The work done at Gorny in these areas had demonstrated that a one-kilometer radius for the immediate response zone was sufficient at this facility. It included the CWD facility itself as well as an industrial facility used for destruction testing of mustard and lewisite. However, the chief state doctor, Mr. G. Onischenko, had decided that a two-kilometer radius around the CW testing and CWD facilities should be created instead. It is important to underline that Gorny was ready for the destruction of the most lethal agents from an engineering, technical, technological, and other design-related aspects.

As a result, the Gorny facility operated with the most competitive technology that provided for the lowest level of danger for facility personnel and the local population. Safety was maintained through an industrial control for safety systems, supervised on a continual basis.

In Kambarka, testing was done at the industrial CWD facility as well as at the Mirny facility. It was shown that, in case of accident, the maximum distribution of lewisite would not exceed 870 meters. The decision for the size of the immediate response zone was based

on testing done by the chief state doctor, Dr. G. Onischenko, at Gorny after three years of operations. He concluded that there had been no release of chemical agents into the air. Therefore, a one-kilometer radius for the immediate response zone would be sufficient at Kambarka.

A similar process was developed at the Maradykovsky facility (in the Mirny settlement). It was shown that for organophosphorous compounds the immediate response zone should be similar to the one for mustard and lewisite. The decision belonged again to the chief doctor, Dr. G. Onischenko, who approved a two-kilometer zone.

The next stage in the establishment of a facility is the development of a list of air and soil pollutants that must be checked for by the industrial control system at the facility and by the state environmental monitoring system. Tests are conducted daily or every other day, according to schedule. Such lists have been worked out at Gorny, Kambarka, and Mirny (Maradykovsky CWDF).

The third stage relates to deciding on an Industrial Safety Control System design. It should be mentioned that in Russia there are two systems of control over dangerous industrial products, that is, the specific weapons agents.

The first industrial safety control system is maintained by the industry itself at industrial sites. The second system is the supervision over the control and supervisory bodies. Industrial Safety Control systems have been worked out at Gorny, Kambarka, and for the initial destruction line at Maradykovsky. This system allows for an estimation of the number of tests chosen, their location, and what type of equipment would be used.

Similar mechanisms will be set in place at the following facilities in:

- the town of Shchuch'ye in the Kurgan region,
- the settlement of Leonidovka in the Penza region,
- the town of Pochep in the Bryansk region, and
- the settlement of Kizner in the Udmurt Republic.

These systems are designed to prevent any accidental emissions from the ventilation system into the atmosphere outside the facility. Therefore the issue of pollution in the immediate response zone becomes purely hypothetical. To date, there are more than thirty ways to minimize danger at CWD facilities. We have started to care

about worker safety inside the facility. What does this actually mean? It means that the worker should be dressed in full protective gear with respiratory and skin protection. And is this actually implemented? Yes, it is.

What else should one do for worker safety? Medical testing and monitoring workers' health conditions should be provided daily before and after their shifts. Other actions would include limiting the time workers spend in protective suits. According to the Ministry of Health, such shifts under such conditions should be no longer than four hours. It is also a means of minimizing exposure risks for the workers.

How else can we minimize danger? The munitions awaiting destruction should be isolated. Special robots have been designed to destroy the munitions. The robots work under vacuum, their arms are flexible, and they work within a sealed system with no emissions to the exterior. In addition, other sealed technical equipment, health and hygiene control equipment, test stations, room divisions between first and second danger zones, as well as other efforts add to the overall safety of the facility.

To provide for safety outside the facility, we use air purification systems for the ventilated air and gaseous emission – gas emissions from the interaction of sorbent agents with the so-called contact devices. For example, at Kambarka and Maradykovsky, none of the gaseous emissions made it directly into the atmosphere. All emissions go through a scrubbing process, and then through an extra clearing process in common-exchange ventilation. Gaseous emission clearing systems consist of small devices that start functioning when there is an accumulation of chemical agents, and they eliminate and store gaseous emissions. Then the filled devices are replaced. If such large devices are placed in the emissions ventilating system, they can work for a long time and they do not allow for chemical agent leakage. The ventilating system is controlled automatically. Furthermore, a random quantitative analysis test is done in a laboratory inside the CWD facility every four hours.

It is important to underline the fact that in all countries of the world possessing CWD facilities, the requirements, specifications, and standards of every country are followed 100%. Nobody tries to evade control or supervision, or every operational standard. In our

country, an important element for safety and for risk minimization includes the assurance that industrial safety control systems, health safety, and sanitary rules are imposed at each facility.

How do Russian CWD facilities work? Gorny started operations on 19 December 2002, and finished destroying its full stockpile of 1,143 tons of mustard, lewisite, and mustard-lewisite mixtures in three years, by December 2005. The Kambarka facility became operational at the beginning of 2006, and the Maradykovsky facility in September 2006.

Where does the staff at these facilities come from?

The Gorny staff was composed of specialists from the GosNIIOKhT branch in Shikhanakh and members of the local population from the Saratov region living nearby the facility. Once Gorny finished operations, they became the core staff and personnel at Kambarka and Maradykovsky. Part of their work includes training new staff for work at future CWD facilities.

According to health regulations of the Industrial Safety Control System, there are 67 air quality automatically-controlled devices and ventilators and 90 environmental and air monitoring testing areas. More than a hundred thousand quantitative analysis tests were performed at Gorny over the three years of operation.

The Industrial Safety Control System at Kambarka consists of:

- 48 "Cascades", fixed automated devices for continuous sanitary and health control of the air and the ventilating system, and
- 118 "GAI-1Ms", fixed automated gauges for continuous verification of the sealed technological equipment.

This is a total of 166 devices of automatic continuous control of the air, environment, and ventilating systems.

The system also contains:

- 140 fixed locations for testing the air and ventilated environments, and
- 17 "Terminal" fixed analytical stations for carrying out analytical testing within the work zone.

The facility is also equipped with the following non-stationary devices:

- "Losa" leak searchers,
- "TN 03" test-sets to determine lewisite directly in the working zone, and

- "Shtil" and "Tsiklon" samplers.
- All the devices are designed and made in Russia.

Up until November, the Kambarka facility had conducted the following number of tests:

- 1,651 air tests of the work zone,
- 9,649 air tests of the ventilating system, and
- 4,070 surface tests.

This is a total of 15,370 tests for lewisite agent determination.

The Maradykovsky Industrial Safety Control System consists of 31 stationary automatic devices for air quality and environmental monitoring, 29 fixed test stations, and 11 stationary "Terminal" analytical stations for conducting tests in the work zone.

Up until the beginning of November, the following tests have been conducted at Maradykovsky:

- 2,295 air tests of the work zone,
- 592 air tests of the ventilating system, and
- 405 surface tests.

This is a total of 3,292 tests.

One can confidently conclude that the safety of CWD facilities is reinforced by the Industrial Safety Control Systems that they possess.

Information interests of the Shchuch'ye region's inhabitants



G. Veprava,
Director, Green Cross Outreach Office,
Shchuch'ye, Kurgan oblast

The challenge of chemical weapons stockpiling and destruction is of more and more interest to the population in the Shchuch'ye Region. The construction of the chemical weapons destruction facility is practically finished, and this fact increases the curiosity of the region's inhabitants regarding issues of safety in stockpiling and destruction. We have already spoken many times that one cannot form public opinion only by words; citizens trust the promises that everything will be fine, but one cannot assume this all the time. Therefore, for the purposes of forming positive public opinion regarding the federal program on chemical weapons destruction, there is an important need to study public opinion and take constructive decisions proceeding from concerns of the population.

Recent analysis of public opinion has shown that the Shchuch'ye population is interested in questions of safety of chemical weapons stockpiling and destruction, the level of risk for the resulting bitumen-salt mass, how long the bitumen-salt mass waste might be stored within the region, and whether the possibility exists to transport the waste away from the region. The question of how well all emergency services are prepared for accidents is also very pertinent – whether the emergency services can coordinate and determine any degree of danger in a timely way, can inform the population and evacuate citizens to safety, and can render aid, if necessary, to injured people.

The Shchuch'ye regional department for emergency services, "Emercom", with the financial support of Green Cross Russia, teaches local citizens emergency responses to emergencies at the chemical weapons stockpile and destruction facilities and organizes citizen training sessions. The population is concerned about evacuation options over non-surfaced roads from the emergency planning zone in case of emergency, including what vehicles might be utilized in case of emergency. Thus questions arise concerning emergency evacuation arrangements and the procurement of the means of evacuation. In the town of Shchuch'ye there are 2,533 automobiles, which belong to individuals, and another 309 automobiles which belong to agen-

cies. One can organize a certain number of these private automobiles for the purpose of providing population evacuation, but there are no surfaced roads which would correspond to the evacuation direction. There are not enough buses for evacuating the schools and there are no buses for the children's preschools. All these problems create much bewilderment and even indignation by citizens at our local information offices.

The organization of environmental monitoring is also important to the local population. Monitoring is especially urgent in springtime when the snow thaws, trees bloom and pollen begins to cover reservoirs and pools, and people begin to suffer allergies. It is practically impossible to deny or to confirm the existence of military toxic agents in the environment within the emergency planning zone because there is no environmental laboratory in the Shchuch'ye region. Although the military is carrying out environmental monitoring, the laboratories, which are equipped with the newest equipment and operated by qualified personnel, are in Kurgan, about 200 kilometers from the town of Shchuch'ye. The members of the Citizens' Advisory Commission on the problems of chemical weapons destruction and the head military officer of the Shchuch'ye region have visited the regional center for state environmental control and monitoring of chemical weapons destruction, directed by T. Shingarenko, and have posed questions. And the regional center has now begun to issue fact sheets where they consider the regional inhabitants' information concerns.

The population is also anxious about the provision of quality medical care. In analyzing public opinion one finds fewer complaints about public health services in comparison with other aspects of the chemdemil issue, but there remains a deep concern nevertheless about possible health impacts of the chemical weapons stockpile and the future destruction facility; this concern appears stronger from time to time. This fact could be related to media publicity and to the appearance of any type of disease. Even if diseases cannot be caused by the influence of military toxic agents of neuro-paralytic nature, there is a tendency among the population to assume diseases are due to the impact of the military toxic agents. There may be a need to have "Medbioextrem" experts participate in our public information efforts in order to better explain the potential impacts of military toxic agents of neuro-paralytic nature on human organisms.

It is also often noted that the employable inhabitants of the region hope for opportunities of employment – good work and wages during construction and for later operations of the facility for chemical weapons destruc-

tion. This category of the region's inhabitants is focused on the fact that construction workers are needed for the facility. These questions were raised at the Citizens' Advisory Commission by the region's administrator. Inhabitants of Shchuch'ye and nearby regions all have questions concerning the length of employment, salaries, and benefits for the employees of the chemical weapons destruction facility.

Although the new facility has not yet begun its destruction of chemical weapons, there is already strong interest in how the plant might best be utilized in the future after it concludes its task of chemical weapons elimination. Might it continue processing the toxic waste produced in the destruction process?

The social problems of the Shchuch'ye region began of course to appear long before the start of the facility construction. Local inhabitants were hopeful that the start-up of facility construction would bring positive changes to their social realm. They are interested in the following questions: when will there be potable water and gas in the region? When will there be central heating in the town? And will they construct houses for the inhabitants of the emergency planning zone as part of the program on chemical weapons destruction? World War II veterans are especially interested whether they will get comfortable apartments in a new housing complex. The inhabitants of the south part of the town are interested whether they will build a school in the new housing complex; and the rural inhabitants – whether there will be a boarding program within this school. They propose to build a new school with a swimming pool, but they have already closed some rural schools in the Shchuch'ye region; the boarding program at the town's middle comprehensive school No.1 is old, and the rural children have no place to live if they are educated in the regional center. This explains the strong interest in construction of a new school with a boarding program as part of it.

In addition regional inhabitants are concerned with issues of heating, water supply, roads, and the construction of drainage canals.

The population also asks about opportunities for holding expanded information meetings with the senior officers of the program on the chemical weapons destruction, with the developers of the technology for chemical weapons destruction, with the engineers and designers, with the directors of the facility construction, and others.

Citizens often pose questions on whether it is planned to make the passport system more stringent. The purpose of this question is to prohibit the immigration of criminal elements within the region.

Although special benefits for citizens living within the emergency planning zone have now been legally rescinded, many visitors to our information office continue to be interested in what benefits and social guarantees are stipulated for the citizens living or working within the emergency planning zone.

These are very many questions. Therefore, in order to fulfill the task of providing public information for the chemical weapons destruction program, it is important to continue our efforts in the following directions:

- Providing official, objective, and timely information regarding the construction of the facility for chemical weapons demilitarization.
- Informing inhabitants on the purposes and tasks of the chemical weapons demilitarization program; on the character of the destruction technology to be utilized at the facility; and on the fate of toxic wastes from the chemical weapons destruction process.
- Informing inhabitants on implementation of the program for improving social and housing conditions within the emergency planning zone.
- Providing timely information on the results of medical, ecological, social, and public health monitoring.
- Informing the public about security measures which may impact citizens near the demilitarization facility.
- Addressing the legislative base related to the protection of interests of citizens in the emergency planning zone as well as to the activities of authorities overseeing facility construction.
- Addressing rumors.

We need to be able to obtain information in a direct and timely way. We need good cooperation in public outreach with facility officials; and we need timely public meetings with the directors of the federal agency on the safe stockpiling and destruction of chemical weapons in order to provide positive results.

A constructive dialogue with the public will bring about an increase in public confidence in federal authorities and non-governmental organizations which are implementing the chemical weapons demilitarization program; this, in turn, will help to form a positive public climate in relation to the whole program.

Main directions of the military information department for social and political stabilization in chemical weapons stockpile and destruction regions



***S. Palamarchuk,
Director, military information department,
Leonidovka arsenal, Penza oblast***

Ladies and gentlemen, since its creation, the Military Information Department has been located together with the Green Cross Russia Public Outreach Office in Penza. This is mutually beneficial for both organizations. Our group provides public outreach and information on the real situation regarding the safety of chemical weapons stockpiles, while Green Cross Russia (GCR) provides reliable information on the environmental situation around the Chemical Weapons Destruction Facility (CWDF), as well as information on public health. Both organizations share information with each other. To be honest, people trust such an organization as GCR more, and working jointly with them is of great importance to us. Such collaboration between public authorities and a nongovernmental organization has created a positive public opinion on the issue of CWD.

The Military Information Department is based on the following regulations: Russian Federation federal laws, "On chemical weapons destruction", "On state secrecy", and "On information and information protection"; Statements of the Military Information Department; Orders and Directives by the Head of the Federal Agency for Industry; and Orders and Directives from the CWDF Director.

Working objectives of the group are as follows: forming a positive public opinion about the issues regarding the chemical weapons stockpile and destruction; providing a comprehensive and objective review of the CWD problem in the mass media, organizing the dissemination of CWD information materials, including brochures, and explaining legislative acts; and cooperating with local and federal authorities, local and regional mass media, and with environmental organizations.

Our main tasks are as follows: systematically informing the population and public organizations on technologies for safety and protection, technologies for CW destruction, and CWD construction materials; teaching the population on the use of individual protective measures; monitoring and analyzing public opinion, the position of government authorities and public organizations, and the mass media; and organizing consultative meetings, seminars, roundtables and other activities with the public and public authorities.

The main directions of work for 2006 have been:

(1) Panel discussions, roundtables, lectures, and other activities regarding CWD safety issues, emergency alarm systems, legislation regarding CWDF, and environmental safety around the CWDF. We have used many visual materials including video and PowerPoint presentations.

(2) We have disseminated 950 brochures, "Steps to Take in Emergency Situations", to the towns of Leonidovka and Zolotarevka and to visitors in our office.

(3) We have disseminated 200 copies of the following informational Bulletins: № 1, "Land Recultivation – A Historical Perspective of the Situation at Mokhovoe Lake"; and № 2, "Social Infrastructure Development around the Leonidovka CWDF facility".

(4) We have disseminated 1500 copies of Informational Bulletins № 3, "The Launch of the Second CWDF in Kambarka, Udmurt Republic, with a Destruction Capacity of 2,600 Tons per Year"; № 4, "Protective Measures Planned in the Emergency Planning Zone"; №5, "Public Health Monitoring in Emergency Planning Zones: Purpose and Implementation"; № 6, "Answers to Inhabitants' Questions"; № 7, "Population's Needs Come First"; and № 8, "The Opening of the CWDF at Maradykovo".

(5) We have disseminated 1500 brochures on "Social Protection of the Population During Chemical Weapons Destruction".

(6) We have disseminated 930 copies of the brochure, "Questions and Answers to Current Issues of Chemical Weapons Disarmament". And

(7) We have disseminated 500 copies of the 28 December 2005 article, "Gorny is Ordered to Live".

On 3 February 2006 we gave a presentation at Penza State Pedagogical University to chemistry students on the issue of "Implementing the Chemical Weapons Convention by the Russian Federation: Current Situation and Perspectives until 2012".

On 25 April 2006 we gave a presentation at a one-day seminar with the directors of town administrations in the emergency planning zone and the

deputy directors of the Penzenskiy district administration and Penza city on the following issues: technical characteristics of CWDF technology to be used; problems with the stockpile and envisioned chemical weapons destruction process on the territory of the Penza Oblast; and on 26 May we gave a speech at a meeting with Leonidovka inhabitants on "Perspectives of Infrastructure Development in 2006".

Additional meetings were set up with the inhabitants of the Volnyi and Vozrozhdenie settlements on construction of the CWDF and social infrastructure development in 2006.

From 25 May to 25 June 2006 we organized a literature exhibition on chemical weapons stockpile and destruction facilities in a library reading room at Penza State Polytechnic University.

On 19 June 2006 together with the Regional Information Center of the State Organization and Department on Emergency Situations of the Penza Oblast and with the Green Cross Russia Public Outreach Office in Penza, we participated in a study entitled "Ways of Providing, Receiving, and Fixing Individual Protective Equipment for the Population of the Zolotarevka Settlement".

On 7 July 2006 we held a meeting with the inhabitants of the Vozrozhdenie settlement concerning the construction of the CWDF and social infrastructure development in 2006.

Also on 7 July 2006 we held a meeting with the staff of the "Nadezhda" sanatorium in the Kichkileika settlement. We have created a permanent information stand for the sanatorium patients.

On 18 August 2006 we held a meeting with the inhabitants of Volnyi and Leonidovka settlements, located in the emergency planning zone, on the issue of "Russia's Implementation of the Chemical Weapons Convention: Current Situation and Future Perspectives".

On 21 August 2006 we met with staff at the regional museum. We provided them with public outreach literature to distribute to visitors.

On 23 August 2006 we assisted the Regional Informational Center in preparing information on the building of a new health clinic and diagnostic center to be aired on the Express-TV channel.

On 11 September 2006, along with the Penza Green Cross office and the Ministry of Emergency of the Penza Oblast, we carried out training for distribution of individual protective equipment to Leonidovka inhabitants.

On 20 September 2006 I gave a presentation during a seminar with environmental education teachers in the city of Penza on the following topics:

characteristics of the CWDF located in the Oblast territory; and infrastructure development in the area of the chemical weapons stockpile.

On 28 September 2006, along with the Regional Informational Center and the Express TV, we took part in a direct broadcast on "CWD in the Penza Oblast".

On 25 October 2006, we took part in a roundtable discussion on "CWD in the Penza Oblast: Facts, Rumors, and Problems", organized by Green Cross Russia and the Penza State Regional Museum.

We have also extensively distributed materials to the print and radio broadcast mass media.

In 2006 we prepared, published, and disseminated for free 500 copies of the "Surskie Prostory" newspaper that contains articles on chemical disarmament issues such as "After the Long Arguments and Populist Decisions", "They Can Do Both: Disarm Terrorists and Sing Songs", "Fulfilling the Plan Without Deceiving", "Contractors Are Expected to Come to Zolotarevka and Leonidovka", "Each Zolotarevka Inhabitant will Receive a Gas Mask", and "Problems with the CWDF at Leonidovka Are Everybody's Problems".

We also worked on two radio shows: "Public health monitoring of the population in the emergency planning zone" and "The safety situation of the chemical weapons stockpile".

We published a monthly informational magazine (about ten pages) which we distributed to district and settlement administrators, educational institutions, the Penza city library, Penza University, and Leonidovka and Zolotarevka libraries and schools.

We also organized numerous one-time activities on numerous topics. We provided help, for example, to A.Morozov, a graduate student at the International Independent Environmental-Political Science Institute of Penza, for his diploma study on "Means of Individual Protection used at Chemical Weapon Stockpiles and Destruction".

We also provided help to O.Pankratova, a graduate student at the Institute of History and Legal Studies at the Penzenskiy State Pedagogical University, to write her diploma work on the following subject: "Fundamental Constitutional Processes for CWD: Understanding the Legislation of the Russian Federation", as part of this study, we prepared a 12-question survey for the inhabitants.

I would like to note that the creation of Regional Informational Centers (RIC) and of the Interregional Informational Center in the city of Saratov

has played a very positive role in the process of informing the population on chemical disarmament in Russia in general and in the Penza Oblast in particular. Professional journalists at these centers help us a lot with public relations. They have organized "direct lines", roundtables, and informational meetings on many subjects related to chemical disarmament. As demonstrated by recent collaborative efforts, the most important aspect is to bring factual information to the people, and not to just promise them something or give unreliable information. Most of all, people living in such close proximity to the stockpiles are interested in knowing that the federal executive obligations are implemented.

I would also like to note that, based on results from a social survey in the town of Leonidovka, 70% of the population is in favor of the construction of the facility; therefore, there is no tension with regard to this project. Our experience shows that, while organizing "direct line", people are mainly worried about the safety of the CW stockpile (70%), while a small minority worries about the technology choice and about public health and environmental protection.

In conclusion, I would like to mention the Oblast and Russian Federation publications. Indeed, journalists are not specialized on CWD issues, but some like to write on sensational issues. Such "hot" articles written by journalists with no technical background on CWD, although they raise the publication's and the journalist's rating, create social tension. Their articles may contain a bit of truth, but their allegations that everything goes wrong with Russian CWD make me concerned. I would like to mention by name the Zelenyi mir publication and Mr. Khrustalev. According to him, Mr. Khrustalev has visited all the regions and found all the "negative" consequences of CWD. It seems to me, however, that Zelenyi mir has become so lethargic that it has only succeeded in re-publishing the same negative articles of Mr. Lev Fedorov year after year without even bothering to change the titles.

I believe this kind of "hot" or "sensational" articles cannot affect public opinion regarding CWD in our country as a whole, and particularly at the CW stockpiles and destruction facilities at Leonidovka if everything promised by the Federal authorities is delivered fully and respects the highest quality standards.

Thank you.

**Baseline medical exam results of children
and teenagers living in the area of protective measures
at chemical weapons destruction facilities (CWDFs)
prior to operations**

***V. Golodenko,
Chief doctor***

***V. Shirokova,
Deputy chief doctor***

***A. Fitin,
Laboratory director
Children's hospital clinic № 38,
Federal medical-biological agency***



We have examined more than 8,000 children living in the emergency planning zones of six chemical weapons destruction facilities (CWDFs). Considering the extent of this ongoing examination and investigation, it may be somewhat early to present the full results at this time. I can only slightly open a door for you to see what we are working on. Let's start with objectives and tasks: examining teenagers and children and carrying out medical surveillance. The goals of the survey are indicated in the federal law for the Chemical Weapons Destruction (CWD) Program.

The law formulates two goals: (a) finding diseases in their early stage which can be cured with an effective therapy, and (b) having experts figure out the causes for diseases among children living in the emergency planning zones. In reality, there are only about two or three organizations in Russia that are able to solve these specific tasks. A disease does not exist without a cause. And the greatest number of causes is from the external environment. Effective therapy is not possible without determining the cause of the disease. When treatment is based solely on symptoms, and when we don't know the cause, we can

only temporarily reduce symptoms at best. Apart from this, without having determined the true nature of a disease, it is impossible to make an economically sound management decision with regard to a non-identified source of pathogens. Although the treated patients may have their symptoms relieved, the disease will most certainly return when the patient returns to the same region of the disease.

It is therefore important not to mix the causes of diseases with the conditions of disease development. For example, the reasons for the wide spread of AIDS are social conditions. There are conditions encouraging disease development, and there are conditions discouraging its development. Often times, here and in other environments, people claim that the reasons for many diseases stem from poor social conditions. This is not true. One should consider the factors of external environment and prenatal factors. To solve the tasks expressed in the law, we have to determine all diseases present in this territory, and then determine their causes.

Oftentimes we deal not only with primary but also mother-to-child transmitted diseases. For example, when a mother has a pathogen from an external environment affecting her, she acquires a certain disease; therefore, a child born from this mother gets an inherited pathogen. Based on this inherited pathogen the accompanying diseases may develop in the child. These accompanying diseases grow into secondary diseases which we often times deal with. To find out the true cause of a disease, we have to follow this chain of events in order to establish the primary reason – the influence of the pathogen on the pregnant mother.

It is important what the law says about the necessity to determine the origin of diseases in the emergency planning zones which may not be the effect of toxic military agents. It is a fact that the destruction facility contains a number of other chemical substances, other than toxic chemical agents, which are needed to make the chemical weapons agent less poisonous.

The toxic effect of basic chemical substances, as well as the toxic effects of the chemicals needed to destroy the CW agent, is quite high. The technology involved in destroying poisonous chemicals is very expensive as a result of the high level of protection and material security needed. It is therefore not likely that destroyed poisonous chemicals would burst into flames and be released from the chemical

weapons destruction facility. At least, we hope not. If something does get released from the chemical weapons destruction facilities, it will not be poisonous chemical weapons agents, but instead a "giant chemical reaction" that would include up to one hundred toxic substances. Thus, the law determines that all of us must determine the causes while taking into consideration the work of the CWDF. But, to solve this issue and determine the effect of the chemical weapons destruction facility on public health, we have to determine the reason behind today's high level of diseases among children.

Imagine the problem of determining these causes as two icebergs crashing into each other – one iceberg of disease and a second iceberg of environmental pollution. So, to determine the cause of a disease, we have to know all about this disease and everything about the quality of environment. According to official documents, the registered level of disease, which is based on the inhabitants' visits to the clinics and hospitals, is about 5-15% of the population. This is only the tip of the iceberg, the part we see outside the water. However, we find out through home visits by physicians that the actual rate of disease among the population is 30-50%. This is the upper middle part of the submerged portion of the iceberg. We can figure out the total submerged part of the iceberg (the total rate of disease) only when Green Cross sponsors the travel of the children to Moscow. This is happening at the moment. Once in Moscow, the children will be checked into the specialized in-patient childrens hospital №38, also known as the Center for Environmental Pediatrics of the Russian Federal Medical-Biological Agency. After giving medical examinations to roughly 100-200 children from each region, we will then be able to learn almost everything about their diseases.

The situation involving information on the quality of the environment is much worse. We talked about the iceberg representing environmental pollution. There are 10-20,000 toxic substances present in these regions which can exceed allowable norms. All the many data measurement services can measure only one hundredth or one tenth percent of the toxic substances. At the same time, the equipment can only measure the substances which do not impact public health, because those substances are easy and cheap to measure. Therefore, the substances measured are only the ones which nobody suffers from. It is a kind of game called "monitoring". That is why I don't like it. The

modern method of analytical chemistry (mass-spectrometry) allows identifying the patient's environment from blood, urine, and hair, and is able to determine about 250,000 organic substances and all the elements of the Mendeleev chemical elements table. Without knowing the quality of the environment, it is useless to talk about the nature of a disease.

Yesterday we talked about Kambarka, where a chemical weapons destruction facility has been opened, but forty-four scrubbers that should clean gas emissions from all the stages of the technology did not work for six months. A stack was constructed and everything was simply released to the atmosphere through it. Even professionals like me, who require that information, cannot get it. This is how it works in most agencies, and most likely in our agency as well. The specialists get their hands on environmental information and hope that people from a higher level will analyze it. However, they will not analyze it. In the best of cases, they will put it aside, and it will just sit there for awhile.

The doctors who conduct medical check-ups for the population need this information. There are lots of organizations that work to protect inhabitants from the influence of toxic chemicals. However, even though there are many of them, we only know a little about the environmental situation, and there is a lack of information-sharing. Environmental monitoring carried out without a supervisory structure in regard to pathogenic sources is both useless and costly.

Yesterday, we also talked about monitoring as a key direction for our work. However, we need to understand that environmental monitoring is not a cure. For example, let's assume we learn that some substance exceeds the norms. So we measure it again, analyze it, look for its source, find a source, and we can destroy the source due to the current allowable legislation and technology. But it does not happen that way. Everything is stopped after proving the fact that we have measured it. In the end it is found that any kind of environmental pollution causes diseases among the population, especially children, since they are the most sensitive to pathogens. There is an international classification of diseases which has them distributed within twenty-four main categories and several thousand smaller categories. Having considered health of children and teenagers in six emergency planning zones, and in more than 20 towns, we came to the conclusion that each

town in the emergency planning zone is unique with regard to its environmental pollution sources and the structure of its disease rate. This means that in each case we must determine the causes of the background disease. In order to do this we need systematic and reliable information on environmental pollution. However, this information is fragmented and not reliable.

The quality of drinking water is estimated by the Sanitary-Epidemiological Service based on several toxic elements, organoleptic features, its opaqueness, color, and other subjective indicators. One cannot draw conclusions based on the toxic qualities of water. This is not monitoring. We have measured the quality of water for nearly all the elements in the periodic table. There were three elements in Shchuch'ye's water with a concentration exceeding the norms. In Kambarka, there was only one element exceeding the norms in the drinking water. Even if everything else was fine, the quality of water alone could influence the spread of disease among populations. The way these elements relate to each other is also important, not only their presence in water.

We are currently working to determine the causes of the disease problems. I hope that we will be able to determine the source of most diseases before and after the launch of these chemical weapons destruction facilities.

Thank you.

Business partnership in the service of security



***T. Ashikhmina,
Principal investigator, regional
center on state oversight and monitoring
of the facility for chemical weapons
stockpiling and destruction,
Kirov region; President,
Kirov affiliate, Green Cross Russia***

Dear Forum participants! We have already heard mention today that the third facility for chemical weapons destruction in our country has recently opened in the Orichi area of the Kirov region. This event is an extraordinary one for us and for the population of the Kirov region. On September 8, 2006 this facility in Vyatka began the destruction of phosphor-organic toxic agents.

Up to this date – the date this facility entered into operation – contractors, technology specialists, and all the services, including security services were busy preparing for the opening.

At the pre-launch of the facility all services responsible for security – federal, regional, and others – began coordinating their efforts for the chemical weapons destruction process.

The Federal Agency for Industry has developed and approved the agreements on systems for state environmental oversight at the chemical weapons destruction facility with "Rostekhnadzor", and with "Rosgidromet" on the organization and implementation of environmental monitoring within the emergency planning zone of the facility. The federal department on the safe stockpiling and destruction of chemical weapons in the regions also began to organize the regional centers for state oversight and monitoring of the facilities for chemical weapons stockpiling and destruction.

The Kirov regional government has a department on conventional problems and there is also a working committee on the safe stockpiling and destruction of chemical weapons.

In the Kirov region the Regional Center on State Oversight and Monitoring of the Facility for Chemical Weapons Stockpiling and

Destruction was opened in 2004. The first division established at the Center was a laboratory for biomonitoring and biotesting. In the autumn of 2004 this laboratory initiated its activity, and in May 2005 it was accredited in technical competence and independence for carrying out eco-toxicological analysis of the natural environments. Shortly thereafter the Center opened a well-equipped chemical and analytical laboratory which was accredited in SAAL. And the third division of the Regional Center was the organization of the information and analytical department to inform official agencies, environmental protection services, and the population about the results of the programs for state environmental oversight and monitoring.

The activities of the Regional Center activity are under constant control of the regional government, Rostekhnadzor, and Rosgidromet. The Center was visited by the director of the federal department for safe chemical weapons stockpiling and destruction, General Valeri Kapashin; a deputy director of the Federal Agency for Industry, General Viktor Kholstov; an official representative of the president in the Privolzhsk federal area, A.Konovalov; the Governor of the Kirov region, N.Shaklein; and representatives of various mass media including radio, TV, and newspaper journalists.

Everyone has of course been most interested in how well the Center's laboratories are equipped, how well they are prepared for oversight and monitoring of chemical weapons destruction activities, and how laboratory test data is made available to the public. They are also interested in any test data which deviates from the expected norms. The Center employees respond to all these questions orally in programs on regional radio stations as well as in written form by issuing bulletins regularly published by the Center.

It should be noted that the development of documentation for establishing rules of industrial inspections and environmental monitoring at the facility, as well as the development of state environmental oversight and monitoring, involves specialists from the Center, scientists, and public officials. In the Kirov region much of this work was done by the laboratory for bio-monitoring which since 1997 has been involved in all projects on the development of pre-project and project documentation. Together with specialists of the ROST association, we have worked out procedures for implementing industrial inspections and environmental monitoring at the Maradykovsky facility, and together with "RI

Promecologiya" in Saratov we have prepared the order for state environmental oversight and monitoring of the facility. We examined and approved every control parameter and the timeframes for observation. Special attention was paid to the monitoring network.

At the start-up of facility operations we made a complex inspection of the industrial territory, both the special planning zone (SPZ) and the emergency planning zone (EPZ), with a total radius up to 25 kilometers from the facility. We have also established the priority sites for control. We have projected a network of observation sites around the facility perimeter. We have determined 155 sites for monitoring of soils, surface water, atmospheric air, and flora and fauna. We have also established an environmental baseline for each site noting its condition prior to the facility launch. We have determined the coordination of offices for oversight and monitoring, and have established automatic procedures for control. At the facility we have organized and equipped a laboratory for technical control of chemical agents and the products of their destruction and a laboratory for control of general industrial pollutants. Our biomonitoring laboratory provides monitoring of flora and fauna under the agreement with the facility.

The emergency management service, "Emercom", has developed programs in case of emergencies and has created systems for emergency communication with the population. Together with the Mirny affiliate of Green Cross Russia we are undertaking training on the use of personal protective equipment.

Both information centers of Green Cross Russia in Kirov and Mirny have undertaken a considerable amount of activity for public outreach. They are actively cooperating with mass media and the information and analytical department of the Regional Center. The Kirov affiliate works with the Duma and the Federation Council and with scientists, journalists, and representatives of the environmental protection services. They invite specialists from various departments responsible for the realization of the federal program on "Destruction of Chemical Weapons in the Russian Federation" to Duma sessions which are, in turn, outlined on the pages of regional newspapers and in local radio programs.

The Green Cross offices also organize conferences with the regional population. They produce fact sheets and posters and have published the book, "Maradykovo at Vyatka", which has already been reprinted

twice. They have also issued three brochures on public outreach.

On October 12, 2006 Green Cross International and Green Cross Russia, the federal department on safe chemical weapons stockpiling and destruction, the government of the Kirov region, and the Kirov affiliate of Green Cross Russia organized a public forum-dialogue at Vyatka State Humanity University in Kirov focused on safe chemical weapons destruction at the Maradykovsky facility in the Orichi rayon. Representatives from the Kotel'nich and Orichi regions and territories, located within the CWDF emergency planning zone, participated in the forum. Delegations from the Udmurt Republic, contiguous with the Kirov region, from Chelyabinsk, and mass media journalists also participated. The forum-dialogue was very efficient and constructive. Forum participants also visited the laboratory for biomonitoring and the Regional Center for State Oversight and Monitoring, and they witnessed that the laboratories are well-equipped with modern technology, are staffed by qualified specialists, and have approved methods of investigation for this effort. The industrial work in the laboratories is supported by scientists as well who have organized the environmental oversight and monitoring. We held such a forum-dialogue at Vyatka for the first time also with the participation of representatives who are responsible for the safe destruction of the chemical weapons at the Maradykovsky arsenal. Forum participants expressed their confidence in the fact that its organization will become a tradition. Annual forums must address collective actions of all citizens responsible for the realization of the federal program on "Destruction of Chemical Weapons in the Russian Federation" and make public statements before the population and public on the progress in chemical weapons destruction; efforts for state oversight, supervision and monitoring of facility activities; and measures for the protection of the environment and public health.

In conclusion, I would like to thank the officials of Green Cross Switzerland and Green Cross Russia for our business partnership, for financial support of activities of the local information offices, for our children's health camps, and for all our outreach publications. I want to also express confidence that our current cooperation will continue to develop and grow through new forms of interaction.

**Organizing public outreach and public relations
for military unit 35776, to provide information within
the framework of the federal facility program on
"chemical weapons destruction in the Russian Federation"
in the Kambarka district of the Udmurt Republic**



***G. Knyazev,
Director, Public Outreach Group,
Kambarka, Udmurt Republic***

The Government Decree of the Russian Federation № 289 of 22 March 1995, "Organizing the work of lewisite destruction stockpiled in the Kambarka District of the Udmurt Republic", served as a starting point for the work related to the chemical weapons destruction process in Kambarka in the Udmurt Republic.

The first stage of planning work started in March 2003, followed by the full scale construction of the chemical weapons destruction facility. It included the erection of a number of buildings and facilities in the industrial zone, and also facilities for the engineering work, military housing, housing for shift workers, and a zone for international inspections.

Construction was started in December 2005, after the State Commission accepted the facility and approved putting it into operation.

On 20 December 2005, after testing in neutral environments, there was a trial launch of the first line of the chemical weapons destruction facility in Kambarka. By 8 o'clock of 21 December 2005 the first ton of lewisite had been destroyed following the complex testing of the technological equipment.

After the destruction process was finished, a sample was taken to check whether the lewisite had been totally destroyed, and the Organization for the Prohibition of Chemical Weapons gave us a certificate proving the amount of lewisite being destroyed at the Kambarka CWD facility. This certificate gave us permission to continue operating the facility.

On 1 March 2006 the chemical weapons destruction facility in Kambarka was officially launched.

Since that day, the planned chemical weapons destruction process has continued at the Kambarka CWDF in the Udmurt Republic. The process of destroying the lewisite is conducted on a continual basis.

Today the Kambarka CWDF is one of the key facilities of chemical weapons destruction in the Russian Federation. It plays a significant role in fulfilling the second stage of international obligations to destroy the poisonous agents stockpiled by Russia according to the Convention – destruction of 8 tons (20% of reserves) of chemical weapons by 29 April 2007 – which was approved in October 2003 by the Eighth Conference of States Parties to the Convention and constitutes the deadline of the Federal Facility Program.

Three thousand tons of lewisite must be destroyed in the Kambarka CWDF by that date.

The "engineering reactor" method is employed to destroy lewisite at the Kambarka CWDF. Injection allows lewisite to mix much faster with a special water-alkali blend, so that the reaction of detoxification of the military poisonous agent is faster and more effective. Due to this new technology more lewisite has been liquidated in Kambarka in half a year than was in Gornyy over a three-year period.

By 30 October 2006 1,658 tons and 56 kilograms of lewisite were liquidated at the Kambarka CWDF. The chosen technology of detoxification of lewisite fully corresponds to the requirements of safety, technical excellence, and effectiveness. This technology provides an effective solution to the chemical weapons destruction problem.

All the issues related to the safe destruction of chemical weapons have a high priority, and are always under the control of the facility experts, the Federal Agency for the Safe Stockpiling and Destruction of Chemical Weapons, the State Scientific Research Institute of Chemical Technology, the State Scientific Research Institute of Industrial Ecology, and the Russian Ministry for Natural Resources.

One of the most important aspects of applying the complex measures called for to implement the Convention on the Prohibition of Development, Production, Stockpiling, Use and Destruction of Chemical Weapons, and of Russia fulfilling its international obligations, is the effort to shape a constructive public opinion to support the decisions taken by the Government.

We understand that creating positive public opinion regarding the problem of chemical weapons destruction under the current conditions of a complex economic situation and poor social and material conditions of the Kambarka district population demands several activities.

The main impetus of this activity is providing detailed information to accompany implementation of the chemical weapons destruction program in the Kambarka District.

That is exactly the main task of the Kambarka Group for Public Outreach and Public Relations at the Kambarka Chemical Weapons Destruction Facility of the Udmurt Republic.

This task includes the following:

- Informing the population about the objectives and tasks of the chemical weapons destruction program. Notwithstanding a lot of informational materials published, the inhabitants need to have additional information. To make this information more readily available, the workers of the Group for Public Outreach and Public Relations of the CWDF developed and published a number of brochures in 2005, including "Get Acquainted with Chemical Weaponry" and "To Kambarka District Inhabitants about Chemical Weapons Destruction". These brochures were disseminated by the Group among the population living in the protected zone.

- Provision of up-to-date, objective, and reliable information on the safe functioning of the Kambarka CWDF, and on lewisite destruction technology used at this facility. The most effective channels to provide the population with such information are the regional mass media (newspapers "Izvestiya of the Udmurt Republic"; "Udmurtskaya Pravda"; the TV channel, "My Udmurtia"; the radio program, "My Udmurtia"), and information pages of the district newspaper, "Kamskaya Nov". In 2006 the Group published 21 articles in the newspaper, "Kamskaya Nov", on chemical weapons destruction issues in the Kambarka District. Three issues of informational pages have been developed and published along with the Regional Public Outreach Office for chemical disarmament issues in the Udmurt Republic.

- Provision of information on carrying out medical and environmental monitoring. Public health and the environmental situation are the issues that worry the population. Providing inhabitants with information significantly affects their attitude towards the facility.

In particular, we should pay attention to providing objective information. Otherwise it will lead to frightening rumors and panic about the "hazardous nature of poisonous agents". With regard to that, providing people with information on the medical and environmental monitoring carried out in the district is an important and timely measure.

The public can find local articles with experts' comments and explanations on these issues in the district newspaper, "Kamskaya Nov".

These materials are provided by the Group's members, as well as by specialists in the Central District Hospital, the Center of Hygiene and Epidemiology of the Udmurt Republic, the District Inspector for Environmental Safety, and others.

As our experience demonstrates, the most effective ways to inform the population are through meetings and conversations, when people can pose their questions to the group workers.

It is already the third year that the Group workers, along with the Youth Department of the Kambarka District, have conducted a contest with the young people of the Kambarka District on military and practical sport activities to win the M.Kalashnikov Cup. In 2006 there was a lecture, "The Chemical Weapons Destruction Facility in Kambarka: Reality and Perspectives", and the testing of the brochure, "Everyone Should Know That," for the contest participants and teachers of the town and district schools, as well as the Kambarka Mechanical Construction College and the professional college. An excursion to the territory of the military unit 35776 was conducted at the end of the contests. Children visited the barracks, the gym, and the recreation room. Everybody was content. There were 180 people participating in this event.

From 1 to 4 August 2006 the Regional Informational Center on Chemical Weapons Destruction in the Udmurt Republic, along with the Group for Public Outreach and Public Relations, carried out a summer camp environmental training at the source of the of Kama and Bui rivers for the first time in the Kambarka District.

The main purpose of this event was to inform the camp participants about the safety of chemical weapons destruction as a main condition of the work at the Kambarka CWDF.

On 2 August 2006 the employees of the working group for public outreach carried out the following events for children:

- Theoretical lesson: A lecture, "History of Producing and Using Chemical Weapons. Lewisite and its Dangerous Features. Providing

First Aid against Lewisite Intoxication. Ensuring the Safe Functioning of the Kambarka CWDF. And Actions of the Population in Case of Emergency";

- Practical training: Wearing a gas mask for a certain time limit, demonstration of protective gear, and the work of the military in chemical investigations;

- A game, "Zarnichka", including five stages to pass;

- Role game, "Debates", on issues: "Do we need to destroy chemical weapons?" The conclusion arrived at was "we have to destroy chemical weapons".

In addition, video materials and handouts have been used: illustrations, schematic representations, posters, and stands where people can see what the CWDF looks like and understand the technology of processing hazardous substances.

In 2006 the group workers created two video films: "The Chemical Weapons Destruction Facility at Kambarka in the Udmurt Republic", and "The Launch of the Kambarka CWDF", which have been used by group workers working with the population.

The advantage of these handouts is their availability to be understood by all population groups. They help to cool down any emotional tension as inhabitants get a clearer picture of the CWDF; it then becomes familiar and less frightening to them.

More than 1,100 people visited the Center.

The group workers have conducted more than 130 events, involving 1,800 people.

Since December 1998, there have been more than 14,500 visits to or from the Group for Public Outreach and Public Relations of the Kambarka CWDF.

Organizational work for information dissemination in Saratov on the federal program for destruction of chemical weapons stockpiles in the Russian Federation



***N. Degtyaryeva,
Director, Interregional editorial
and information office; Director,
Privolzhsk regional office, Rossiiskaya
Gazeta, Saratov***

Dear Sirs! Thank you for giving me the opportunity to speak today at your forum. I would like to start my speech with the words of a famous Russian poet, "We can't foresee the response to our words". That is true. But when talking about such a disturbing, complex, and real theme for everyone as chemical disarmament, a journalist, if he is a responsible and thinking person, is nevertheless obliged to foresee the reaction to his words – what the consequences of his words might be on the lives of different people and society as a whole.

Sociological research, carried out by ITAR-TASS analytical centers in a number of regions of chemical weapons destruction (CWD) facilities last year and the beginning of this, show that people everywhere complain of insufficient knowledge about the issues of chemical weapons disarmament. There is insufficient information for the inhabitants of the nearest towns, settlements and villages regarding the condition of the chemical weapons stockpiles, the activities of the CWD facilities, the impact of the facilities on the environment, and the possibilities for social development, all relating to the construction of the facilities for chemical weapons destruction. Sociologists call it a situation of information uncertainty, causing social tension in society and some mass phobia. I know that you have spoken about this problem at your previous forums. The problem of timely and complete information for the population remains acute even today when two new CWD facilities in Kambarka and Maradykovsky have begun operating, and when construction at the remaining facility sites is more active.

One of the main tasks faced by Rossiiskaya Gazeta as a co-executor of the federal program, "Destruction of Chemical Weapons Stockpiles in the Russian Federation", is to raise the level of activity for informing the population, and to shape a positive public attitude at the regional level for the Russian Federation's execution of its obligations under the Chemical Weapons Convention.

It is no secret that the information sphere for many inhabitants of a territory with CWD facilities is often limited to the size of its region and its local settlement. There is a lack of information on what is happening in other regions, on how they solve similar problems, and what lessons can be learned from similar situations. This often causes misunderstanding both about the perspectives of the chemical weapons destruction process, and the perspectives of the development of the region, specific villages, and towns after the chemical weapons destruction has been completed. Therefore strengthening the level of municipal institutions in those territories where CWD facilities are located is recognized as the top priority for the interregional editorial and information office, which has been organized in Saratov based on the Privolzhsk Rossiiskaya Gazeta regional office.

As the first assistant to the general director of Rossiiskaya Gazeta, S. Borissova, speaking just prior to me, has said that the regional offices of Rossiiskaya Gazeta work either at the regional level or at the most powerful mass media level. In this way we assure that the most professionally prepared journalists and editors are engaged in press coverage of these problems. The task of the interregional editorial and information center is to help create a unified system to provide information to the citizens and non-governmental organizations located near the CWD facilities directly in the regions, and to create conditions for strengthening publications of the regional press on this subject.

The experience gained by the journalists of Rossiiskaya Gazeta at the information meetings concerning chemical weapons destruction in Gorny, and other public processes focused on CWD, gave the interregional center the opportunity to consolidate the activities of regional information offices (RIOs) based on an information exchange between the regions, as well as between the regions and the office. It also gave us the opportunity to help the regional information offices, to facilitate groups in public relations work with local and regional mass media, and to help in the preparation of high quality materials on CWD problems.

Three key events of the chemical disarmament process – the end of CW destruction in Gorny, and the launching of CWD facilities in Kambarka and Maradykovsky – were covered in specially dedicated six- and eight-page issues of Rossiiskaya Gazeta – "Project Gorny", "Project Kambarka", and "Project Maradykovo" – which were prepared by the interregional information office together with the regional editorial and information offices (REIF). These special issues were distributed as a part of the main issue of Rossiiskaya Gazeta in each separate region. The inhabitants of the settlements which were located in the emergency planning zones near the facilities received additional circulation copies in all three cases. We tried in these issues to provide the most comprehensive information covering the work done by the executors of the federal program, and to answer the most pressing and the most often asked questions concerning the technologies of CW destruction. These questions concerned the safety system which has been created in the region, and the solution to social problems related to the chemical weapons destruction program.

The materials of these special issues formed the basis of press releases sent to RIOs and Public Outreach Group (POG) for the purpose of preparing materials for the regional and municipal press. I want to especially note the fact that because of the preparation of special issues and press releases, the employees of IRIO Rossiiskaya Gazeta have certainly had a greater opportunity than any other regional journalists to have their questions answered by informed specialists and experts at the federal level. Thus, we have considerably widened the zone of information dissemination for both the population and the regional journalists themselves.

For the same purpose there are regularly organized press tours for the regional mass media journalists to operating CWD facilities as well as those facilities to be launched. Journalists were granted maximum access to the facility in Gorny, and with great interest Penza and Saratov journalists have accepted an invitation of the director of the Federal Department for Chemical Disarmament, Lieutenant General Valeri Kapashin, to visit a weapons stockpile facility in the settlement of Leonidovka. Similar tours are also being organized at other facilities. I know, in particular, from my personal talks with journalists of the municipal newspapers of the region next to the Maradykovsky stockpile that there is good cooperation with the facility management staff to receive timely information.

A seminar for ROI and POG employees, organized by the interregional editorial and information office, took place in June this year in Saratov. The main purpose was again to increase the level of information for those people working with the public and to shape a favorable public climate. According to the responses of the conference participants who participated in the "roundtable seminar" organized with scientists from the Saratov Military Institute of Radiation, Chemical and Biological Protection, many questions were raised which were interesting for everyone. They were especially interested in the visit to Gorny, visiting the facility CAT "Possyelok Mikhaylovsky", and the social facilities built in Gorny within the framework of the federal program.

The seminar participants prepared and published materials regarding the results of this trip in the local mass media in the regions of the CWD facilities. As direct witnesses in these materials, they described Gorny as open and that they were pleasantly surprised by the things they had seen, in particular, in contrast to "horror stories" which had been presented in some press about problems of canalization, water pipes, gasification, etc. I am convinced that publication of these materials by the seminar participants played a positive role in refuting many rumors. A definite role was also played by the distribution in the regions (as an information exchange) of IRIO materials, prepared by the regional journalists on the work of the Citizens' Advisory Commission in Kambarka. These included thoughts of the inhabitants nearest to the Leonidovka villages concerning CWD facilities, and how the CAT is organizing its work and planning its future activities in the settlement of Mikhailovsky in the Saratov region.

However, as they say, it's better to see everything with one's own eyes. POG has the possibility not only to speak about but to show the situation at Russia's first CWD facility in Gorny through a documentary film on this subject made by IRIO Rossiiskaya Gazeta together with the Nizhne-Volzhvsk newsreel studio. IRIO employees are also taking part in the preparation of TV stories for regional TV companies. These materials, as well as a documentary film, comprise an archive of video materials which can be used while working with the population.

Certainly no one will try to prove that everything connected with the chemical weapon destruction processes is going very smoothly. There are certain problems which are written about by both the journalists of Rossiiskaya Gazeta and the journalists of the regional information offices

of Rossiiskaya Gazeta. And at this time I want to return to the beginning of my speech: a journalist should always – especially regarding such a complicated subject as chemical weapon disarmament – foresee the impact of his words. In these remote regions, where practically all CWD facilities are located, everyone can perceive things the way he wants to see them. And the journalist himself bears the responsibility for the way he interprets the facts. Here is one example which illustrates my point well: near the facility in Gorny there is an old cemetery and a pond which has lately attracted a few pairs of swans. I and a flight of wild ducks. Thus one journalist takes a picture of the plant complexes at the background of old lop-sided crosses, and the other – on the background of swans and wheat fields. A question: who from my colleagues is more unbiased in reflecting the ecological situation around the facility? To be unbiased – it means not to accuse anyone. But to have all the range of information to be unbiased is necessary. In our work, we base our observations on information obtained from a variety of sources: business trips, personal contacts with the inhabitants, the opinions of municipal and regional authorities, the analysis of experts and specialists, from monitoring the regional press, and from interviews held in the regions where the CWD facilities are located.

To maximize information coverage of events which take place near CWD facilities, to unite the efforts of the groups in public outreach with the regional journalists writing on the subjects of the Chemical Weapons Convention, and to widen their horizons on this subject – these are the main tasks of the interregional editorial and information office of Rossiiskaya Gazeta. I hope that our information cooperation will serve a common interest.

I wish you all success.

Organization of environmental monitoring within the emergency planning zone of the Leonidovka facility



***A. Ivanov,
Chairman, Department of ecology
and biology, Penza state
agricultural academy***

There are two inextricably connected tasks for the system of state environmental control and monitoring: the provision of environmental safety in the immediate response zone and the emergency planning zone of the chemical weapons destruction (CWD) facility, and the preservation of public security.

The most rational decision for organizing a monitoring system in the regions where CWD facilities are proposed or where such facilities are already functioning is the establishment of specialized centers for environmental control and monitoring. I direct such a center in the Penza region. I can say that at present it is outfitted with modern technology and equipment which includes a laboratory for bio-indication and bio-testing, a central analytical laboratory, and a mobile testing system. We are currently working on establishing a geo-informational system and a system of cartographical materials which will allow undertaking research in a flexible way.

The facility in Leonidovka has not yet been constructed. Before it is built, our basic task is a background examination of the emergency planning and immediate response zones. We will seek to understand the environmental situation at both a macro and micro scale. In the Penza region this work has its own challenges connected to the fact that there are documented sites where chemical weapons destruction has already taken place in the past. In the environs of the Leonidovka stockpile there are ground sites, including Lake Mokhovoe, where chemical weapons were previously destroyed. Both the Swiss and Russian Green Cross have played a major role in the examination of these sites since 1998. The initial stage of these efforts was done at the expense of these organizations. This work is of great importance as it allows us to come to some objective baseline estimate of the condition of the natural environment in the emergency planning zone.

I also wanted to underline for another moment the importance of our natural environment. The condition of the natural environment is a guarantee of public health. However, the monitoring of public health is an extremely complicated challenge. A human being is a complex social creature whose health and life are influenced by a variety of factors which are not only of a local character. Therefore we used one more interesting criterion – the condition of domestic animals' health. Domestic animals have been born locally, they eat locally grown food, and they drink water from local sources. Veterinary research carried out by our center together with the Penza Agricultural Academy has revealed that immunological parameters of large cattle herds in Leonidovka and Zolotaryevka have substantial deviations. These are the locations of chemical weapons destruction which influence the condition of the animals' health. Just as we've studied the cattle, there is a corresponding food chain through milk and meat leading to man; this is extremely complicated to follow and to outline.

From our point of view, one of the most important problems currently in our region in connection to the facility construction is the remediation and environmental recovery of the former sites of chemical weapons destruction. We have developed a technique based on the sealing of the ground surface and soil drainage with the help of water absorbing gel. These problems can be solved. Local and federal authorities as well as non-governmental organizations all need to be part of this solution. To date funding from the Ministry for Natural Resources of Russia has remediated only one site. The continuance of these remediation efforts for our region is of the utmost importance, both environmentally and politically. Having remediated ground sites previously polluted by chemical weapons dumping, we will be able to illustrate the capability for any such future pollution. When we witness poor situations from the past but do nothing to help, there is a negative impression left.

One more point which I wanted to emphasize in my speech is that public outreach and efforts to help form a positive public climate are important regarding the problem of treaty implementation. In this respect our regional center has a close relationship with the local Green Cross affiliate and working group for public outreach. Actually, this outreach work is done in an integrated way. Most all of our efforts are jointly organized including seminars with teachers, seminars with employees of municipal institutions, and seminars with mass media representatives which we

begin by acquainting them with the regional center of environmental control and monitoring. It is necessary to disabuse them of the impression that the facility construction is not controlled by anybody. We show our laboratories and modern equipment which can monitor many sources. In addition, we demonstrate our system of testing and analysis. This is extremely important because all the sources of water supply for humans and cattle are identified. As a result our joint efforts are successful. I can say with full confidence that in Penza there are no problems of social tension around the issue of building the chemical weapons destruction facility. However, it is impossible to predict that this will continue forever.

Our latest task has been a permanent exhibition on the problem of chemical weapons and of treaty implementation at the Local Lore museum. This exhibition allows us to actually respond to many questions in a continual way. As part of the exhibition there is an exposition with photos and exhibits with special guides. Ten days prior to the opening of the exhibition there were already 26 applications for group tours. This acknowledges the interest of the population in the problem and is most certainly a positive result.

And I also want to speak briefly to the fact of how actively we have been working with the mass media. There have been special editions of the newspaper, *Izvestiya*, and a special issue of the magazine, *Science, Economics, and Industry of the XXI Century*, dedicated to the problem of chemical weapons destruction in Russia, which is now published.

In conclusion, I want to thank Green Cross Switzerland and Green Cross Russia for the great help which they have rendered to us and are continuing to provide to our region in support of public oversight and monitoring of former chemical weapons destruction sites and in support of public involvement. This is extremely important for us, and surely for the organization of this very interesting forum. Thank you for your attention.

Now that the chemical weapons destruction facility has opened, what problems remain?



***V. Konyashin,
Chairman, Committee of Kambarka District
Council of Deputies***

Dear forum participants and guests! Almost one year has passed since my presentation at our last forum. The topic of my presentation was focused on the work of the Citizens' Advisory Commission regarding the conditions for constructing the chemical weapons destruction facility and the social infrastructure envisioned by the chemical weapons destruction program.

In general, the population of the town and district of Kambarka and the public community had a positive attitude towards construction of the chemical weapons destruction facility. During 2006, together with V. Novikov, the Director of the Green Cross Public Outreach Office, we informed the population of the town and district on the issues raised by the people and the public community.

Experts from the Agency on Conventional Issues of Chemical Weapons Destruction under the Ministry of Construction of the Udmurt Republic, including Deputy Minister A. Perunov and G. Frisorger, Director of the Center of Informational Resources of the Ministry of Nature of the Udmurt Republic, provided their assistance in informing the population and public community.

I would like to emphasize the positive and timely response to these issues, raised by the Citizens' Advisory Commission, from V. Kholstov and V. Kapashin. The questions also found good responses from the directors of the Kambarka CWD facility. The tension within the population has thereby been much reduced. I believe that such a mutual understanding has established a positive attitude towards the construction and launch of the facility.

Over this period in Kambarka there have been no protests against the facility construction. The Udmurt Republic Government and the Federal

Agency on Safe Chemical Weapons Stockpiling and Destruction took the initiative to have all social infrastructure, as agreed with the State as the customer and with "Glavexpertisa" of the district administration, constructed and put into operation before the deadline.

In March 2006 there was an official opening of the chemical weapons destruction facility with everyone invited. The entire project was demonstrated with many questions answered; thereafter, all rumors disappeared. The facility is now operating and more than 1,500 tons of lewisite has been destroyed.

But with the facility now open and construction of some of the social infrastructure finished, the local administration and town inhabitants still have many more questions.

The experience of keeping the population informed during the construction process raised many questions such as: what will be built? And how will the facility affect the future development of the town and district? All facilities aimed at protecting people living in the area of protective measures at the chemical weapons destruction facility have now been built. "Goszakazchik", with the State as its customer, has now finished implementation of a local emergency alarm system for the population, and the regional center for state environmental control and monitoring has started its work.

But since the facility began operations, it has been shown that not all the emergency systems are operating and not all the managers could provide the population with answers. For example, the facility has started operating now at full capacity, but one problem has surfaced – a foul smell. Members of the military unit and the employees of base #136 became worried. Inquiries about the nature of the smell went to the Green Cross Public Outreach Office and to the Citizens' Advisory Commission. We have asked the facility management and medical doctors, but they all replied that there was no smell, and that residents were just imagining it. The summer started, with hot weather, and people started to notice a foul smell and throat irritation, particularly in the morning. People started to complain, particularly those living in the military town. Forty-seven people wrote a letter to the director of district administration, to the Citizens' Advisory Commission, and to the Green Cross Public Outreach Office. We sent this message also to the Ministry of Natural Resources of the Udmurt Republic, to the Procurator of Nature Protection, to the commander of the military unit, and to

V.Kholstov and V.Kapashin. All of them told us that an additional investigation would be undertaken to determine what kind of smell it was, how it impacted the health of people and the environment, and that the results would be provided to the population. A letter was subsequently received from the Ministry of Natural Resources of the Udmurt Republic stating that the contract for additional testing of the facility emissions was signed with the Saratov Institute of Industrial Ecology, directed by Vladimir Nikolaevich Chupis. This study has now been carried out.

On 19 September 2006 the inhabitants and employees of the base #136 met with the representatives of the study. V.Chupis declared that an azoth-acetylene mixture was being released into the air. The emissions were within the facility operating norms, and would not affect public health. But the local population has its own opinion about this problem.

I would like to emphasize that with the opening of the facility, and with social infrastructure now built within the CWD framework, there are more and more questions posed to the Citizens' Advisory Commission and the Green Cross Public Outreach Office; people are requesting more information on these issues, and are demanding practical solutions. This is because people thought that there would be a significant improvement in their standard of living, of medical service and town amenities in the districts of chemical weapons destruction and stockpiles. Everything has now been built, or close to finishing construction, but there is no satisfaction among the population with the work to date. We are demanding more information regarding the poor work of the clinic-diagnostic center, why there are no physicians yet, why the town and district gasification is proceeding so slowly, why town improvements are being delayed, when the reconstruction of the sewage facilities will be finished, and when the population will be supplied with good drinking water.

In our opinion, and in response to these questions, the Federal Agency on Safe Chemical Weapons Stockpiling and Destruction, along with the Government of the Russian Federation, has to develop and approve a mechanism of transferring ownership of the infrastructure to the local administration and to resolve the issue of financing these efforts. The owner of these facilities must be settled, and we need to know who is responsible for their operations. This uncertainty creates questions among the population and causes dissatisfaction with their work.

One more issue that worries the district population is the question of facility conversion. This must be solved in the next two years before the facility terminates its work. The regional government and local authorities have to address this now. Why is this issue particularly important for Kambarka? Even with the launch of the CWD facility, we still have the highest level of unemployment in the Udmurt Republic. The Kambarka machinery plant, initially with 3,000 employees but with only 120 people working at the moment, does not operate properly. It means that the work of the chemical weapons destruction facility is not solving the unemployment issue. What will happen once the chemical weapons are destroyed? Where will Kambarka residents work? And what will happen with the facility? The local administration and the Udmurt Republic Government have no concrete answers to these questions. In the near future it may exacerbate the social tension in both the town and district.

In conclusion I would like to emphasize that the facility in Kambarka is operating, and that the population has considered it in a careful and thoughtful manner, fully cognizant of the fact that this is a particularly hazardous facility. That is why we need constant, objective, and timely information concerning its operations in order to limit the tension in the population.

I should also note the role of the work of the Green Cross Public Outreach Office and the Citizens' Advisory Commission. At the moment their work is getting more and more complicated – people need objective information in order to preclude rumors and resultant social tension. It appears that the attention paid by the mass media to Kambarka is more than sufficient, however, the lack of information is mentioned at every public meeting.

People do not need "parade" reports, they want to get answers to their questions, and journalists, coming and going, and not expert in this particular matter, cannot adequately respond to these questions, or lower public tension. That is why the Public Outreach Office and the Citizens' Advisory Commission are chiefly responsible for the work with the local population.

Ways and methods of public outreach work regarding chemical weapons destruction at the Maradykovsky facility



***N. Svedentsova,
Director, Green Cross public outreach
office, Kirov***

Dear colleagues! I guess that I can address you this way since we all are united by one goal – to provide a chemical weapons destruction process that will be safe for both people and the environment.

There is a story to each region located around chemical weapons stockpile sites. Chemical weapons were brought to Maradykovo in the 1940s by the military. Later, the number of stored weapons greatly expanded and reached 17% of the total volume of the total Russian stockpile of chemical weapons.

Today, some 45 years later, it is astonishing that the Mirny settlement of 5,000 inhabitants is located just a few hundred meters away from the Maradykovsky CWD facility. So many problems could have been avoided if those who made the decision to establish this town were environmentally educated and understood that such a neighborhood is extremely dangerous.

It is easy to understand people's fears when they were told that chemical weapons would be destroyed in their backyard. In general, for the population of the Kirov Oblast, particularly for those living in the emergency planning zone, chemical weapons destruction is a permanent headache. The Orichevskiy District's economy is based mainly on agriculture, and is its own supplier of food. The whole population of Kirov and other Oblast cities are dependent on food from these crops, and many city residents have their own small gardens.

Worries and rumors began surfacing on what is going on at the Maradykovsky facility as a result of lack of proper public information. The number of such rumors has significantly increased this year due to the launch of the first destruction line of the CWDF and the demilitarization of VX bombs. Because of this, it was particularly important to determine

a proper public relations strategy when addressing the population. It was crucial to explain the necessity of chemical weapons destruction and the reliability and safety of the destruction methods chosen. The Green Cross Public Outreach Offices (POOs) at Kirov and Mirny took over this important task. It is certain that nowadays, the Green Cross Kirov POO is the only public organization in the Oblast conducting work on chemical weapons destruction that people can trust. People can obtain free copies of methodical literature, brochures and other materials, and can participate in lectures, conversations, seminars, and roundtables. The regional environmental forum-dialogue (held on 12 October 2006) on chemical weapons destruction issues, along with the work of the Citizens' Advisory Commission (CAC) that involved scientists, ecologists, journalists, and Green Cross activists, has become an important annual event in public life.

The CAC members are a respected source of information on issues of chemical weapon destruction. We should not underestimate the significance and benefits of organizing a summer camp for children living in an area of protective measures for public opinion. The Oblast government has recognized the Green Cross POOs for the significance of their work with the population. Its representatives take part in all major events, and because of them public relations with the population have improved.

All the things mentioned above have been possible due to the help of Green Cross Russia, Green Cross International and its Swiss and American affiliates. It is difficult to imagine the emotional state of the population and their stance on the chemical weapons destruction problem without a Green Cross Public Outreach Office in the cities of Kirov and Mirny. These offices provide complete information on very worrisome issues, on how best to understand them, and to obtain literature on chemical weapons destruction.

I would also like to thank Green Cross Russia for the information provided during these dialogues; we are able to learn a constructive approach for working with the general population. The Green Cross motto of "cooperation, not confrontation" remains very important to us.

The methodology of providing public outreach information to populations living near chemical weapons destruction facilities



***S. Maslova,
Chief executive officer, "Awareness"
research and development center***

Dear colleagues! It is my honor to speak to you at our Forum-Dialogue today. In my report I would like to analyze all the existing methods of public outreach information in use at present. All these methods have their advantages and disadvantages, and also pitfalls and weaknesses that need to be taken into account while using them.

In all the regions where we conduct our research work we ask people what methods of public outreach information, in their opinion, are the most interesting and useful. In every region the first thing people distinguish as most important is the method of holding meetings with the population. On the one hand, this method makes people believe that their interests draw attention – specialists, as well as representatives from the authorities and of civil society organizations come to see them. On the other hand, people can talk to the specialists and ask them the questions they are interested in.

But at the same time people are sometimes critical of these meetings. These criticisms mainly refer to the inadequate preparation of reports and speeches of the participants. Only a few people have higher education among those who visit such meetings, and it is difficult for them to understand difficult technical terms; their questions may seem naive and may show their ignorance about major issues. Nevertheless, every question deserves respect and a detailed answer and explanation. That is why such meetings need very good preparation on the part of speakers, and an ability to answer any tricky questions, even if they are not clearly formulated. As is well-known, to possess knowledge and to be able to impart it are different things. If, during a meeting there are reports that interest only the specialists, the common people are not interested in them. On the contrary, they may leave because somebody is speaking a strange lan-

guage. Besides, if the speakers treat the questions arrogantly and depreciatingly, people react extremely negative. Such behavior on the part of speakers leads not to dialogue, but rather to confrontation.

Another important point to pay attention to during preparation of such meetings is the announcement about the forthcoming meeting to all social levels of a population. During our investigation we found that some people did not know about the meetings that were to be held in their town, although they were interested in participating in these meetings. It is recommended to announce meetings using radio, television, and local newspapers.

Another important method of informing people about chemical weapons destruction (CWD) is the use of the mass media: newspapers, television, and radio. Articles in the Rossiiskaya Gazeta newspaper have already been mentioned extensively. On the one hand, such newspapers cover events connected with CWD widely, but on the other hand there is sometimes a negative reaction to the tone of some publications. I would like to emphasize that in the towns and villages surrounding CWD sites people mainly read only their local newspapers. Only a few can afford a subscription or to buy central or regional newspapers. People in several population centers can come to a local information center, Green Cross Russia (GCR), and become acquainted with articles from the central newspapers, but inhabitants of small villages don't have this opportunity. According to the directors of the GCR information centers, the village inhabitants have come to the area's center more rarely after the abolition of discounts for passenger fares on public transport.

Nevertheless, there are two methods of familiarizing the population with materials published in the central mass media. One way is to reprint the central newspapers' materials in local newspapers. But, according to editors of some local newspapers, reprinting of materials from the central mass media is not always possible because of lack of space in local newspapers. Maybe journalists of the local newspapers could review and summarize news releases from the central newspapers in order to acquaint their readers with the problems of CWD in a more concise text.

On the other hand, the Penza region has had a good experience of working with the local population, allowing it to solve this problem. Members of the local GCR information centers and of the military unit there deliver printed materials with information on CWD to individual houses. But in the Penza region there are only two settlements included

in the protection zone, Zolotarevka and Leonidovka, and other regions where chemical weapons are destroyed have many more such settlements. It is necessary to select a place to work with activists in such regions, so that they can come regularly to the local GCR informational center and to give informational material to the rest of the inhabitants of the settlement. Such a "door to door" method is very easily accepted by the population, especially by retirees, or others who can't physically come to information meetings.

It has already been mentioned at our Forum that materials should be written in simple language, which is easily understood by different categories of people. I will not go into this issue in depth, but I just want to remind our participants of its importance.

If not everyone can afford newspapers, almost everybody watches television. So TV programs dedicated to CWD should be announced in advance so that all members of the public who are interested in this problem are aware beforehand of the broadcast time.

Another important method of information distribution is the preparation of informational papers, brochures, and visual materials, to be distributed among the inhabitants. On the one hand, such materials have a definite advantage – people can read a brochure or informational paper at any time they want. But on the other hand, it is very important to take into account the interests and levels of education of different population groups and to maintain a differentiated approach. Of course, there are people with higher technical education who are interested in brochures written by specialists, where details of CWD technology or ecological monitoring are reviewed. But there are also many people who lack not only higher, but even secondary education. They are not interested in such brochures. They need informational materials that present issues clearly, particularly regarding rules of behavior in the case of a state of emergency, or relating to the ongoing work of the CWD facility, presented in a simple visual form. This is where pictures and drawings on corresponding issues are helpful.

The organization of excursions to the CWD facility for the inhabitants' representatives and press-tours for journalists is also very important. People are then able to see the CWD facility with their own eyes, and after their fear of uncertainty disappears, the facility is no longer considered as something "closed" and obscure. Moreover, such an important engagement with public opinion is useful for leaders to understand the

public's concerns. Leaders of public organizations are people who enjoy the confidence of the population, so when they can tell inhabitants that they have been to the CWD facility and convinced themselves of its safety, this argument is very significant for people. Judging from accounts of journalists who have participated in such press-tours, such actions are not always organized perfectly. During preparation of reports to be read at press-tours we should take into account the fact that the journalists may not be interested in questions geared to specialists in chemistry and technology.

Last year members of regional GCR informational centers actively used the method of holding seminars for employees of cultural, medical, and educational institutions, as well as for postal workers. This is also one of the most important types of work to conduct with opinion leaders who receive information directly from specialists on the major issues connected with implementation of the CWD program. It is also important to pay attention to feedback from seminar participants and to utilize their subsequent activities to distribute information materials. It sometimes happens that a seminar participant, after receiving informational brochures and other materials, leaves them all at his office without distributing them further. So it is necessary to work out a system of subsequent follow-up interactions with seminar participants.

A 2006 update on U.S. chemical weapons destruction



P. Walker,
Legacy Program Director Global Green
USA

Before I start, let me preface my remarks with two short notes. First, a special thank you to our colleagues at Green Cross Russia and to our esteemed conference chairman, Dr. Sergei Baranovsky, for once again, and for the eighth year, offering us all an excellent opportunity to discuss the very important topic of chemical weapons destruction and abolition here in Russia and globally. And second, please note that although I am discussing chemical weapons destruction in the United States, I am here representing Global Green USA, the U.S. affiliate of Green Cross International, and am not speaking on behalf of the U.S. government or any government contractor.

The chemical weapons stockpile in the United States, similar to Russia's, is large, diverse, and dispersed among nine major stockpile sites. Eight of these are in the continental United States in eight different states, while one is located on Johnston Atoll, about 700 miles west of Hawaii in the Pacific Ocean. Russia has two fewer declared stockpiles – seven rather than nine – but has declared about 40,000 tons total versus about 31,500 tons declared in the U.S. One must be careful, by the way, when discussing stockpile figures; you will see very different numbers cited by various analysts, some in metric tons and others in U.S. equivalents. Some figures also vary based on what was declared when, e.g. before or after the entry into force of the Chemical Weapons Convention in April 1997. I will use rounded U.S. equivalents and tonnage originally declared by the U.S. for this presentation; if you would like more exact or official figures, please let me know.

Both Russia and the U.S. therefore account for some 71,500 tons – 97% – out of a global total of about 73,500 tons of declared

chemical weapons by six countries; the additional four are Albania with about 16 tons, Libya with about 23 tons, India with about 1,000 tons, and South Korea with another 1,000 tons.

The major differences between the U.S. and Russian CW stockpiles are two: many U.S. chemical weapons contain explosives and propellants, in addition to deadly chemical agents, making them much more complex and challenging to demilitarize than Russian weapons with only agent; and the U.S. stockpiles are much more diverse than Russian stockpiles in both weapon type and size. The largest U.S. stockpile in Tooele, Utah contains some 14,000 tons of chemical agents, double the largest in Russia; the smallest stockpile in Blue Grass, Kentucky holds about 600 tons, half the size of the smallest in Russia. In Russia, six of the seven stockpiles hold between 5,500 and 7,500 tons, while Gornyy, now destroyed in its first stage, held about 1,200 tons.

The United States has made tremendous progress in chemical weapons destruction, having unilaterally begun its program over a decade before the Chemical Weapons Convention enters into force in 1997. The first incinerator for CW burning was constructed on Johnston Atoll, the westernmost site, and operated for a decade from 1990 until 2000. It destroyed over 2,000 tons of chemical agents – GB (sarin), VX, and HD (mustard) – in 292,780 munitions including rockets, bombs, projectiles, and bulk containers. The incinerator and related structures have now all been torn down and the site remediated. I should also mention that this decade-long destruction process was not without its difficulties and challenges, including live agent leaking out the smokestack of the incinerator and occasional human and mechanical errors and accidents.

The Johnston Atoll operation also had its surprises too, for example, when the heavy metal, mercury, was discovered in mustard shells; this required major changes in the incinerator exhaust scrubbing mechanisms to preclude serious releases of mercury into the atmosphere. And the U.S. Army also had originally planned on leaving the "decontaminated" concrete structure standing to save the cost of full facility destruction. After much public debate thereon, it was decided to fully destroy the facility and, interestingly, live agent was still discovered imbedded within the structure; this showed how difficult it is to fully decontaminate these facilities and

offered a note of warning to anyone contemplating reuse of buildings in which live chemical agents have been introduced.

A second stockpile site in Aberdeen, Maryland, the easternmost site, is also now closed and almost finished with facility deconstruction and site remediation. This site held 1,600 tons of mustard agent which was neutralized in first stage on-site and subsequently shipped by truck north to an industrial waste treatment facility, Dupont Chambers Works, in New Jersey for final bioremediation. The process took about two years from 2003 to 2005. This was an accelerated schedule from original plans; after the September 11, 2001 terrorist attacks in New York, Washington, and Pennsylvania, deep concern arose over the vulnerability of open stockpiles of chemical weapons, of which Aberdeen was one, to terrorist attack. The Army immediately increased security on the stockpile after September 11th, and then sped up facility construction and neutralization.

Another four CW stockpile sites in the U.S. have operating incinerators and ongoing chemical weapons destruction processes (totals as of 8 October 2006): Tooele, Utah has destroyed about 55% of its stockpile, some 7,500 tons; Anniston, Alabama about 23% or 550 tons; Pine Bluff, Arkansas about 9% or 350 tons; and Umatilla, Oregon about 21% or 800 tons.

Of the remaining three sites, Newport, Indiana has begun neutralizing its bulk VX nerve agent and has now completed about 350 tons, 28% of its stockpile. The neutralized agent is currently being stored in temporary tanks on site until the second stage destruction process can be determined – likely either supercritical water oxidation (SCWO) on site, or shipment by truck to New Jersey for industrial waste treatment. The shipment option has been vehemently opposed by environmental organizations and public officials in both Delaware and New Jersey, and the U.S. Congress has just recently called for further review of on-site versus off-site treatment for Newport's neutralized nerve agents.

The Newport case is illustrative of the potential difficulty of transporting chemical weapons, or waste derived from chemical weapons, off-site for further treatment. While the shipment by tanker truck of neutralized mustard from Aberdeen, Maryland to New Jersey went very smoothly, without much public or official

protest, it seems clear that this happened in the immediate aftermath of 911 and was less than 100 miles across two state borders. When the Army first proposed to ship Newport's waste three years ago across one state border to Dayton, Ohio, citizens and public officials immediately opposed it; the shipment was somehow perceived by Dayton's residents as less urgent than Aberdeen had been, and the Army very much miscalculated the need for timely public outreach and transparency. The Army's subsequent proposal to ship Newport's waste across 4-5 state borders and over 600 miles to New Jersey has not surprisingly generated still more opposition. This dilemma has, in the meantime, prohibited the U.S. from having Newport's tonnage declared destroyed by the OPCW, has slipped the U.S. destruction schedule farther to the right, and has cost tens of millions of dollars in additional funding needs for a temporary chemical tank farm at Newport.

The two remaining U.S. CW stockpile sites – Pueblo, Colorado and Blue Grass, Kentucky – are in a pre-construction phase now; their schedules for construction and operations remain undetermined in light of recently reduced funding for both sites. If major construction is not begun at these sites next year, there will be very little chance for them to be completed by the extended 2012 deadline of the Chemical Weapons Convention and their operations could well drag on for years thereafter. These two sites hold combined about 10% or 3,100 tons of the total U.S. CW stockpile.

The United States has thus been successful in destroying about 13,000 tons or 40% of its declared chemical weapons stockpile over the past 16 years, 1990-2006. This averages to about 800 tons per year, although the annual figure has obviously increased in the past few years as additional destruction facilities have come online. While this is many times what Russia has been able to destroy to date, you must remember that the first Russian facility at Gornyy only began operating in 2002, twelve years after the first U.S. facility started up.

The immediate goal for the U.S. is to complete destruction of 45% of its stockpile – another 1,200 tons – by December 31, 2007, the 45% CWC deadline extended by the Organization for the Prohibition of Chemical Weapons (OPCW) from the original dead-

line of April 2004. It would appear likely now that the U.S. will meet this near-term date, slightly over a year from now.

The bigger and longer-term challenge will be meeting the final CWC destruction deadline – April 29, 2012 – for 100% destruction. Both the U.S. and Russia have applied, as many of you are aware, for the maximum five-year extension of this deadline from 2007 to 2012. The OPCW will no doubt approve these requests, along with other extension requests from other CW possessor states, next month at the 11th Conference of States Parties in The Hague.

Let me mention, in conclusion, a few of the remaining challenges in the U.S. program. One of these is technology choice, that is, what is the best, most effective, most safe, and most acceptable technology (or technologies) to use in destroying chemical weapons? This is a generic challenge in many areas of public policy today as technology advances and offers a number of options to us all. The major dispute over the past fifteen years or more in the U.S. for CW destruction technologies has been between thermal, i.e. incineration, and wet, i.e. neutralization, technologies. As we've discussed, five stockpile sites have or are now using incineration, while four sites have, are, or will be using neutralization technologies in the U.S. for first-stage destruction of live chemical agents. In Russia, in comparison, the primary destruction technology is neutralization, but incineration will apparently be used for some secondary destruction.

The immediate question of technology choice now facing the U.S. destruction program is for the second stage – whether to ship neutralized agent to industrial waste treatment facilities, or to treat it on-site with a variety of technologies including supercritical water oxidation and bioremediation. The unfortunate failure to resolve these issues over the past several years has both stretched the destruction schedule and increased the budget for CW demilitarization. I believe that the Army has underestimated citizen opposition to CW waste shipments and overestimated potential cost savings. The lesson learned here is that it is likely in most cases that on-site treatment will be more cost-effective and politically viable. But only time will tell whether the Army's current proposals for neutralized waste shipments from Newport, Pueblo, and possibly also Blue Grass will be successful or not.

A second major challenge now for the U.S. chemical weapons destruction program is cost. Over twenty years ago the United States estimated the total cost for CW demilitarization as \$2 billion. Five years ago this estimate had risen to about \$15 billion. Today it would appear to be \$35-40 billion, and may still rise further. Although the Defense Department is used to high cost escalation in weapons procurement, this enormous cost escalation is quite striking. The U.S. is spending \$1-1.5 billion annually and is still under-funding the program. The current shortfall in funding has hit particularly hard at the schedules for the two remaining construction projects – Pueblo and Blue Grass – and has required congressional intervention to prevent the Army from raiding these budgets to pay for cost escalation at other CW destruction facilities.

This funding crunch comes at an especially difficult time as well when the two ongoing wars in Iraq and Afghanistan have soaked up well over \$100 billion annually for the past three years with no end yet in sight. With a military budget (including war costs) now approaching \$600 billion annually in the U.S., and with a federal discretionary budget cap of \$873 billion, this leaves very little room for any additional spending today either within or outside of the military budget. And the U.S. has also appropriated over \$1 billion to date to help Russia destroy its own chemical weapons.

A third major problem, related to the two previous ones, is meeting legally binding destruction deadlines of the Chemical Weapons Convention. This has not been a problem until now. The U.S. easily met its 1% and 20% CWC deadlines in 2000 and 2002, respectively. As I noted earlier, it will also likely meet its extended 45% deadline next year. But the Defense Department announced publicly in April that it will not be able to meet the 100% extended deadline of 2012, and recently leaked documents indicate that recent budget cutbacks may extend the CW demilitarization program another decade or more. Should this be the case, it will have potential negative consequences for the international CWC legal regime, for security and safety of stockpile communities, and certainly for the total program cost in the U.S.

Let me make three short, concluding points. First, it is important for all of us – Russians, Americans, and others – to keep our "eyes on the prize," the abolition of chemical weapons both nationally and

globally. This is our historic, important goal and we must not lose sight of it while understandably focusing on day-to-day implementation and budget activities. Second, it is also critical for a program to be transparent with the public, both locally and regionally, and to work towards developing consensus amongst all stakeholders. We have learned, oftentimes the hard way, in the U.S. that secrecy and non-responsiveness to citizen and state and local official inquiries and needs can only undermine the success of a program. We are much better off facing tough questions and criticism early rather than later. And third, the top priority is complete protection of public health and the environment. While we have legal deadlines to meet, these are only of secondary concern after worker and citizen safety. Any shortcuts – for budgetary, schedule, or other reasons – in safety, public health, environmental protection, and emergency preparedness must not be tolerated. The Chemical Weapons Convention states specifically in Article IV, paragraph 10 that "[e]ach State Party, during transportation, sampling, storage and destruction of chemical weapons, shall assign the highest priority to ensuring the safety of people and to protecting the environment. Each State Party shall transport, sample, store and destroy chemical weapons in accordance with its national standards for safety and emissions".

Thank you for your kind attention, and I will be happy to entertain any questions.

Citizen participation and how it changed mustard agent destruction at Aberdeen



J. Nunn,
Chairman, Citizens' Advisory Commission,
Aberdeen, Maryland

In 1941, the United States Army stored ton containers of mustard agent at Edgewood Arsenal, now called Aberdeen Proving Ground. Edgewood is located on the western shore of the Chesapeake Bay and is approximately seventy-five miles from Washington, D.C. Edgewood Arsenal was the headquarters of chemical weapons research during World War I and in 1941 still played a prominent role in chemical weapons research. The decision was made by the Army to spread its stockpile of chemical weapons across the United States at eight sites. Two sites contained only ton containers of chemical agents while the other six sites had a variety of agent types and explosively configured munitions.

Aberdeen, Maryland was the only site that stored bulk mustard agent. The agent was stored at the chemical agent storage yard (CASY). Mustard agent is a blister agent and freezes at 14.45 degrees centigrade. The mustard agent was stored in steel shipping containers nearly identical to those used to ship and store chlorine today. At Aberdeen there were 1,817 steel ton containers, which contained 1,623 tons of mustard agent. The containers were stored outside in an open field near a creek on the Bush River. The ton containers were stored in groups of fifteen (eight on the bottom row and seven on the top row). Each group rested on railroad ties and was secured by two steel cables. A third row of empty ton containers laid on top of each group to help minimize damage in the event of an airplane crash. The stockpile sat uncovered and undisclosed to the American public until 1985. In 1985, Congress directed the Army to destroy all of its chemical weapons stockpiles by 1995.

The Army elected to destroy all of its chemical weapons stockpiles through the process of incineration. The destruction plan called for building eight incinerators to destroy each stockpile. The decision to

incinerate on site ignored the differences that existed at the various stockpile sites and used one-size fits all approach. The Army unilaterally made the decision without any input from the citizens that lived around each stockpile. In Maryland, the people questioned why the stockpile had to be incinerated and asked if it could be transported somewhere else for destruction. The community was told it was more dangerous to transport than to incinerate the stockpile on site. Reality set in that the problem was not going away and the community realized that disposal of the stockpile would occur on site. Concerns grew at Aberdeen over the proposed plan to incinerate the mustard agent. Some people were concerned about accidental releases from the disposal plant. Others expressed concern regarding the long-term health effects of incinerating mustard agent.

As the concerns grew, so did the grass roots organizations like the Coalition for Safe Disposal and Concerned Citizens for Maryland's Environment. These groups connected with national groups working to bring about changes in the entire chemical weapons disposal program. The Chemical Weapons Working Group, Greenpeace and others had been working to get the Army to abandon plans to incinerate chemical weapons. The citizens of Maryland working with citizens from the other stockpile sites and the Chemical Weapons Working Group joined forces together to pressure Congress to force the Army to investigate other disposal technologies. Additionally it became clear that citizens at each stockpile site needed a method to have a meaningful dialogue with the Army and Congress about disposal plans in their communities. The Army resisted their efforts to look at alternative technologies and to give the citizens a voice.

In 1992 Congress directed the Army to look at alternatives to incineration and allowed for the creation of Citizen Advisory Commissions at all eight stockpile sites. The commissions were composed of up to seven citizens who lived within a fifty-mile radius of the stockpile and two representatives of state government who had knowledge about the stockpile disposal program. Senior defense department officials were required to meet with the commissions to hear the communities' concerns and to work with the commissions to address disposal problems.

In January 1993, the Maryland Chemical Demilitarization Citizens Advisory Commission (MD CAC) met for the first time

and was asked by the Army to make recommendations as to whether an alternative to incineration should be evaluated. The clear vote of the Commission was that alternatives to incineration should be evaluated at Aberdeen. Their decision was based on the composition of the Aberdeen stockpile which consisted of only bulk agent and no explosives.

The Army had also asked the National Academy of Science to explore alternatives to incineration. The National Academy of Science recommended that the Army explore alternatives at Aberdeen. The Army elected after reviewing the recommendations of the National Academy of Science and the Maryland CAC to develop an alternative technology program for possible use at Aberdeen. This decision occurred shortly after the creation of the Maryland CAC and allowed for the first time a voice in what disposal technology would be deployed. Additionally by establishing the Maryland CAC the Army was able to identify whom in the community they should be talking to about disposal issues.

As a result, the Army and the MD CAC engaged in open discussions and as time passed information flowed more freely. The MD CAC needed information about which alternatives were available and the pros and cons of each. The MD CAC turned to the companies, the Army and the National Academy of Science to learn about the technologies the Army was considering to use at Aberdeen should they elect to abandon incineration. The MD CAC in conjunction with the Army held open forums to obtain feedback from the community about the technologies under consideration. Ultimately, it became clear that the public favored a low temperature batch process that was simple to operate. The Army had been developing on its own a hot water neutralization process followed by bioremediation.

Hot water neutralization of mustard agent resulted in total destruction of the agent and yielded a compound known as thiodiglycol and water, which can be digested by ordinary sewage sludge in a biotreatment facility. The public and the MD CAC favored this process over incineration and other technologies because it was less complex and the material could be analyzed prior to its release to the environment.

Unlike what occurred in 1984 when the Army unilaterally selected incineration; now the community was being asked to participate.

The MD CAC wanted more input and to that end, they asked to meet with General Robert Orton, the Program Manager for the Chemical Weapons Disposal Program to explain their reasons for selecting neutralization. General Orton agreed to meet with the Commission and after this meeting and reviewing input from his own staff, he officially recommended to the Department of the Defense to abandon incineration at Aberdeen. General Orton recommended neutralization of the stockpile followed by onsite bioremediation.

A meeting on General Orton's recommendation was to be held at the Pentagon and again the MD CAC asked for and received permission to speak directly to the decision makers at the Pentagon. A representative of the MD CAC and the National Academy of Science both addressed the officials at the Pentagon along with General Orton. The final decision was made to build a neutralization and bioremediation facility onsite to destroy the stockpile at Aberdeen. This decision was a major victory for all parties involved.

A contract was awarded to BECHTEL and work began on the facility at Aberdeen. Construction was well underway in 2001 when the World Trade Center was destroyed. This event had a profound impact on the disposal facility at Aberdeen. Osama Bin Laden's actions proved that all airplane crashes are not accidents. The Aberdeen stockpile was totally exposed and unprotected. Risk assessments had shown that the greatest risk to the community was from a small plane crash and fire burning out of control. Early on the Army had refused a request by the MD CAC to build storage igloos for the stockpile. Instead the Army opted to place empty ton containers on top to absorb the impact of a crash. The collapse of the World Trade Center made clear that those empty ton containers would offer little protection should a plane fly into the stockpile. The Army responded by immediately building storage igloos and requesting BECHTEL to devise a plan to speed up destruction of the stockpile. BECHTEL's plan involved building a smaller facility and utilizing commercial biotreatment facilities. The plan called for the containers to be drained of agent manually using glove boxes. In this way, the agent could be drained and neutralized faster. The hydrolysate from the reaction would be shipped off site to a commercial facility owned by DuPont Corporation on the Delaware River less than forty miles north of Aberdeen. This plan

was discussed with the community and regulators before being implemented.

In April of 2003, the first ton container was drained and neutralized. Issues arose during the disposal operations such as high mercury levels in some containers, secondary waste, monitoring of ton containers and the discovery that some containers held motor oil mixtures. All of these issues were resolved as a result of the constant communication between all of the stakeholders. Agent destruction was completed on February 27, 2005 and the last ton container was cleaned on February 7, 2006. In February 2007 the facility will be fully dismantled and closed. Throughout this entire period there were no releases of agent to the environment, no permit violations and no loss of life. Aberdeen will be the only chemical weapons stockpile storage site in the United States to meet the Chemical Weapons Convention deadline of 2007.

The ongoing public involvement commitment at the Pueblo chemical weapons disposal facility



***R. Vincent,
Senior Policy Advisor,
Sierra Club & Member, Colorado Chemical
demilitarization citizens'
advisory commission***

It is a genuine privilege for me to have this opportunity to participate in this important meeting and I am truly grateful to Green Cross Russia and to Global Green USA for inviting me. I have heard about these meetings for a number of years, but this is my first opportunity to attend and my first opportunity to visit Russia.

The Sierra Club, for those who may not be familiar with it, was founded in 1892 and is North America's oldest and largest grassroots environmental membership organization. The Club has more than 760,000 members, with Chapters in every state and active local Groups in hundreds of communities, including Pueblo.

The Colorado Chemical Demilitarization Citizens' Advisory Commission (CAC) was established in 1993 to advise the State of Colorado and the Army on chemical weapons disposal. The Commission was authorized by law approved by the US Congress and appointed by the Governor of Colorado. It consists of 9 members – 7 local citizens and 2 Colorado officials. It has become the focus for public involvement in chemical weapons issues in Pueblo.

The facility at Pueblo stores about 8.5% of the original U.S. chemical weapons stockpile. The weapons have been in Pueblo since the 1950s. All are munitions filled with mustard agent. Some contain explosives & propellants as well.

Our community's involvement with the chemical weapons demilitarization effort began in the mid-1980s when the US Army announced that it would build incinerator complexes at all eight continental US chemical weapons storage sites and an additional US site in the Pacific. The Army's technology choice quickly became very controversial. Opposition emerged and began to grow at all of the sites, including Pueblo.

In November 1991, concerned citizens from all of the US chemical weapons sites and representatives from several national and international organizations met in Kentucky to share views and concerns. At that meeting, the Chemical Weapons Working Group was formed and the International Citizens' Accord on Chemical Weapons Disposal was adopted.

In the consensus Accord, the site representatives present agreed to:

- support safe & effective chemical weapons disposal;
- oppose chemical weapons incineration;
- support use of safer, cleaner technologies;
- oppose transportation of chemical weapons for disposal without approval of all affected communities; and,
- work together toward these goals.

About a year later, in 1992, the US Congress, aware of the controversy over the Army's technology choice and concerned about significant schedule slippage and cost overruns in the program, directed the Army to evaluate alternatives to incineration for chemical weapons disposal and to report back to the Congress. That process identified six viable technologies for safely destroying chemical weapons agents and led to a decision to use safer technologies at two US sites that had only agent in bulk storage – no munitions.

Frustrated by the limited application of the alternatives and by continuing delays and cost escalation in the program, the Congress acted again in 1996. This time, the Congress directed an evaluation of alternative systems to incineration for destruction of chemical munitions, and a report back to the Congress. The Congress assigned responsibility for this effort to the Department of Defense, rather than the Army, and specified that assessment was to be managed by someone never before associated with the Army's chemical weapons incineration program. They prohibited equipment purchases at the sites in Colorado and Kentucky until the alternative systems evaluation was completed and the report to Congress delivered, and they authorized construction of two pilot plants to test systems deemed to be promising.

As a result of this congressional action, the Assembled Chemical Weapons Assessment (ACWA) Program was created. The program had new leadership with new attitudes, and they brought a new message to the people of Pueblo.

Earlier, the Army had come to Pueblo with answers – so they thought. ACWA came with a request for help. "We need your help," they said. It is truly amazing what a difference four words can make. Where there had been conflict, there would soon be cooperation.

In the months that followed, the accomplishments of the ACWA program were amazing. In mid-1997, the ACWA Dialogue was created – an open discussion, involving citizens and regulators from all of the affected states with officials and technical staff from the Department of Defense.

The Dialogue members then helped to write technical criteria that became the basis for the Request for Proposals that went out to companies that wanted to compete for the right to demonstrate systems they believed could successfully destroy all of the components of chemical munitions. Those criteria, developed primarily by ordinary citizens from affected communities, were said by a high-ranking Pentagon official to be the best set of technical criteria he had ever seen and that they were developed faster than they would have been if they had been done internally in the usual fashion.

A Citizens' Advisory Technical Team (or CATT) was established, consisting of four of the citizen members of the Dialogue, chosen by the citizen members of the Dialogue, to help with the evaluation of vendor proposals, normally a highly confidential internal government process. They helped to select the successful proposers, and then to design and oversee the demonstration projects for the technologies approved for evaluation.

This remarkable and precedent-setting effort ultimately identified two viable and complete systems for safely and fully destroying chemical weapons munitions. That success led in mid-2002 to approval of the use of a two-stage "neut-bio" system – neutralization (by hydrolysis) followed by biotreatment -- for destruction of the mustard-agent weapons stored at Pueblo. A similar process – neutralization followed by supercritical water oxidation – was selected for use at the site in Kentucky.

A contractor was selected and development of a detailed design began with instructions to evaluate options for acceleration of the destruction of the weapons. To assist with that effort, the CAC formed three work groups -- Acceleration Options, Permitting, and Public Involvement.

The Work Groups and the CAC recommended a number of steps to speed up destruction and permitting – all adopted by the Department of Defense. However, for a number of reasons, we recommended against offsite shipment of most secondary wastes. We were on a roll, moving ahead together in an unusual and effective partnership, determined to get the job done safely, cleanly, and in record time.

In mid-2004, initial construction permits were issued, years faster than had been the case at other chemical demilitarization sites. Everyone was pulling in the same direction. We were on track to complete destruction of our chemical weapons by 2011 – in time to meet the extended deadline in the Chemical Weapons Convention – in spite of the fact that we were starting later than most of the other US sites.

Then, in September 2004, a surprising Stop Work Order was issued by officials at the Pentagon, followed quickly by an order to conduct a cost reduction evaluation. That work stoppage and the subsequent review would cost us a minimum of two years in additional time required for destruction of the weapons at Pueblo and would make it impossible for us to meet the treaty deadlines.

The priorities at the Pentagon had changed. The post-911 mandate to accelerate the process had become a charge to "balance" cost and schedule. The CAC's Acceleration Options Work Group became the Design Options Work Group and we set about the task of re-evaluation of the facility design.

In March 2005, the Pentagon ordered a major system redesign, with a requirement that the new design had to meet an arbitrary and unrealistic total cost cap. Hundreds of workers were laid off or reassigned and the schedule for completion of the destruction process at Pueblo began to slip even further.

The arbitrary cost cap forced a significant reduction in the system size. Three treatment trains became two, again slowing the destruction process, and plans to hydrolyze and biotreat the explosives and propellants onsite had to be abandoned. This latter system change seriously eroded one of the most unique and attractive aspects of the original system design – its largely self-contained ability to process dangerous chemical wastes – and raised concerns about possible gridlock that could result from efforts to move chemical weapons wastes to other communities for ultimate treatment and disposal.

The CAC reluctantly agreed to most of these changes, but once again recommended against attempts to ship hydrolysate for offsite treatment elsewhere.

In the Spring of this year, the new design was submitted for approval, but then the Pentagon's priorities changed again. While approving the new design this past August, the Pentagon also approved a funding plan that calls for a reduced and static funding profile for the balance of the project. Instead of allowing the annual funding commitment to fluctuate to meet program needs, the funding plan calls for the same funding level every year until completion of the project. The result is more delay and higher total cost. The projected completion date is now 2020.

No decision has yet been made on whether to treat the mustard hydrolysate (neutralized mustard agent) onsite or to attempt offsite shipment to a remote treatment and disposal site. The CAC and the Pueblo community have been asked once again -- for the third time -- to consider supporting offsite shipment of hydrolysate. That review has just begun.

Meanwhile, the commitment to public participation in all aspects of the Pueblo chemical weapons disposal effort continues unabated. The Defense Department's Program Manager has met with the community and the CAC twice since August in an effort to explain the rationale for continued interest in offsite shipment of hydrolysate.

The CAC, the Sierra Club, and people of Pueblo remain firmly committed to:

- safe, clean, effective, expeditious disposal of Pueblo's stockpile;
- support for state & federal officials who share those goals; and,
- building politically effective consensus around the steps necessary to get the job done.

Those commitments are not likely to change until the job of destroying Pueblo's chemical weapons is completed.

**Achieving a world without war through disarmament:
achieving chemical weapons demilitarization
in Russia means not only being a patriot
but loving the whole world**



***V. Kvetkov,
Chairman, citizens' advisory committee,
Green Cross Kurgan public outreach
and information center***

Ladies and Gentlemen! Respected Sergey Igorevich! For the third time I am honored to deliver a speech at this dialogue, and I see it as a special and kind opportunity. I believe all the people present here are eager to witness the rapid elimination of chemical weapons. This moment will have a great impact not only on the people living in the emergency planning zones, but elsewhere as well. I have already previously stated that disarmament is more than the physical destruction of rockets and shells.

It seems to me that, just recently, Lev Tolstoy used only two words to describe the human existence – either WAR or PEACE. His times changed dramatically, and after the last world war, there was no possibility for peace and rest in people's souls anymore. People are afraid now and painfully wait a man-made apocalypse with weapons of mass destruction. It is therefore impossible to attain peace without DISARMAMENT.

I consider that, while discussing numerous technical details, it is quite possible to lose sight of what is above and beyond these issues. It turns out that we are involved in the most holy of the fights on this evil earth – the fight for "Peace" spelled with a capital P. There is no other option because humanity will either win or die in this fight. For the third time I call for "Peace" during this forum dialogue, just because there is no other noble and divine topic to equal Peace. I am also convinced that there are no more genius poems being written today that are addressed to the world. Therefore I must quote a poem of the Russian Alexey Apukhtin written in 1888,

which applies to all aspects of our lives today, including the area of disarmament:

With day to day life so short,
Lived in such meaningless ignorance and disability,
Humans should combine their powers and skills,
And carry the burden together...
But no, instead, people – these insignificant little beings -
Fight with each other,
Envy and hate each other.
They love to make their closest ones shed tears,
Which pleases them twice as much,
They no longer share grief, but untouchable happiness!
Masters, slaves, peoples, tribes -
They all breathe hostility, and they are all on guard -
Everywhere around, you see a similar picture of
Relentless and crazy war!

In 1915 the Russian poet Zinaida Gippius went a step further, willing to fight God to stop war:

No, I shall never reconcile.
My plagues are true.
I shall not forgive, I shall not be broken.
I am made out of iron.
Like everyone, I shall fight, kill and die,
Like everyone, I will ruin myself,
But by no means shall I ruin my soul.
In the last hour, in darkness or fire,
I'll ask my heart not to forget:
There is no good reason for war!
And it will never be.
And if this war is God's way of punishment -
I will embark on a bloody road -
My soul will fight Him in battle,
And I shall strike against God.

I wonder what these geniuses would have written about the Cold War which caused so much genocide. Unfortunately, today's anti-Western and anti-American sentiments in Russia as well as anti-Russian feelings in the West are the legacy of the Cold War. It is a state of being started by post World War II communist regimes in collaboration with the

anti-communist Western regimes of the time. Now, a cooperative and multilateral disarmament effort should bring an end to such a hostile environment. This would not only disarm Russia, but bring improvement to the whole world. Hot wars, cold wars...people no longer need victories in war, but a stable, peaceful environment.

It is written in the Preamble of the UNESCO Charter: "Ideas about war spring in people's minds, therefore the idea of world preservation should be planted in their minds". These words are followed by a quote by Leon Feykhtwanger: "An ounce of the world is more expensive than a ton of victories". In 1982, UNESCO, in collaboration with Pugwash, organized a memorable symposium on "Scientists, the Arms Race and Disarmament".

I often think about possible catalysts that started the disarmament movement. What are they besides weapons decay and a logical chain of events? I suppose it is still difficult to point out the main cause of destruction. I do not know how things work in the United States, England or Germany, but in Russia, all lethal problems will bring out typical Russian questions: "Whose fault is it?" As Dostoevsky would say, a typical Russian response would be to identify "criminals" just so someone would appear less guilty himself. When I was invited to address this forum, I remembered his words: "Let's enter the court room with the thoughts that we are all guilty. If we are able to do that, its pain will make us stronger and better people". I want to believe that in this room right now, we all feel the noble pain of fault. In fact, it is part of our father's and grandfather's responsibility for the situation we are in today of materialistic rivalry – a fanatical way to prepare for the apocalypse. When this major crime is committed, there will be no punishment since nobody will be around to judge.

Crime and punishment...Even a symbolic criminal court in Nuremberg, Germany to judge civil and military leaders responsible for starting and maintaining the Cold War could have a positive psychological impact on our planet, and would allow for greater momentum towards the total elimination of weapons of mass destruction. Otherwise, it may be too late.

I am certain that people all over the world are questioning the international community's participation in Russia's chemical weapons destruction. There have been many explanations of why another country's participation is needed, but they all seem to forget an important

principle – the civilized people's and countries' adherence to freedom. I have once again a suitable quote for this situation. It comes from Feydor Dostoevsky: "Try and build a palace. Decorate it with marble, pictures, gold, birds of paradise, gardens and many other beautiful things... And come live in this place. In fact maybe you would never want to leave it again... But suddenly – a trifle! Your palace will be fenced off from the rest of the world, and you will be told, 'Everything is yours! Enjoy yourself! Only don't ever try to step outside the fence!' And be assured that you immediately will want to go away from your paradise and to step over that fence ... Yes, you will miss one thing: your will and freedom".

What I am trying to say is that each country that is not fenced off is completely immersed in and feels part of the whole world's community. The September 11, 2001 American tragedy and the potential danger of the Shchuch'ye chemical weapons arsenal can only worry the free world, the rich and the poor alike. We do not want to lose our heritage. And, as the quick quotes mentioned here from Dostoevsky and Tolstoy underline, these great people are still part and are recognized by our entire planet.

I would like to bow my head at this podium to yet another great person of our planet, the Nobel prize laureate Conrad Lorentz. He is the author of a great book, "The So-Called Evil (The Nature of Aggression)". Lorentz was seriously engaged in disarmament, but not of arsenals but of human minds. It is Lorentz who was accepted and traveled with gray geese who rewarded him with trust and tolerance. Lorentz proves that the commandments of the Bible are not instructions for human behaviors as many people believe, but a list of prohibitions for humans that delay the biological and cultural evolution of homo sapiens. Lorentz concludes in his book that: "Many human qualities that have been considered as high virtues from the Paleolithic up to the recent past, such as supporting ones tribe/country whether right or wrong, which until recently was a very inspiring manifestation, these qualities seem today to be dangerous for human thinking; and for those with a sense of humor, simply humorous...As in the course of many species' evolution, aggression stops the ability for peaceful interaction between two or more individuals, which in turn allows for closer ties of personal love and friendship. These two are the basis for human public relations. Newly developed human living conditions and increased interaction would forbid any signs of aggression, not only toward our closest

friends but towards all people." A deficiency of love and tolerance in today's world can create a menacing and bloody picture, which would make the human immunodeficiency virus look like a simple pink blur.

Unfortunately, the seeds of the past Cold War continue to survive. We learn from a dialogue of the Swedish writer and public figure, Rolf Edberg, with a leading Russian environmentalist that "the world spends eighty times more resources to teach its children to shoot than to teach them to read." The American researcher Ruth Sivard compared in a study world military spending to social spending, showing the absurdity in human thinking of why we consider military spending to be more important. In particular, Sivard's study shows that fifteen million people, who could be saved, die every year. At this rate, we have a Hiroshima every three days.

Humanity has been through numerous disappointments since its beginnings, and it has missed many opportunities and milestones to attain universal peace and prosperity. Today, humanity is fighting a three-headed dragon – with nuclear, biological, and chemical weapons heads. Every one of them can destroy every single living thing on Earth. This monster has terrorized people for more than half a century. Some of the best homo sapiens have finally decided to do everything possible to eliminate one of the dragon's heads: the 'chemical' head. We are fortunate to belong to this group, and let God help us.

And still, one can think of these people who have participated in this fight as the most intelligent. However, reality is that most of these people are poor, illiterate, with no elementary knowledge of chemistry, physics, or biology. Let's forgive them for not entirely understanding what they are doing, and thank them for their tremendous work and achievement to date.

Thank you for your attention.

Environmental characteristics of the town of Kizner in the emergency planning zone around the chemical weapons destruction facility at Kizner, Udmurt republic



G. Frisorger,
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Introduction

Permanent damage to the environment caused by human activity is recognized as a vital problem. The only thing that helps prevent total environmental degradation by humans in our region is the implementation of federal and regional laws concerning the protection of the environment and nature.

Background

The chemical weapons stockpile on the territory of the Kizner region was created as part of military unit No. 2329 in November 1942. It is now renamed military unit No. 55498. From 1942 until mid-1945, the military unit produced rockets and projectiles for the BM-13 (Katusha). From mid-1945 to 1950s, different munition types, both Soviet- and foreign-made, were filled with regular explosives or with chemical agents and stored at this facility. From 1954 to 1970, the munitions brought here were filled with L, GB and GD agents, and from 1970, the munitions brought for storage contained VX agent.

The emergency planning zone (EPZ) of the Kizner stockpile was approved through the RF government decision No. 329 adopted on 12 April 2000. The EPZ covers about 150 square kilometers, roughly 25% of the region. The size of the CW stockpile is about 80% of the area of the town of Kizner. The nearby munitions storage territory is also divided into a "Prohibited area" and a "Prohibited region." There are 28 settlements included in the EPZ and 7 municipalities, with a total population of 17,500 inhabitants. The largest areas are: the Kizner commune, Kizner village, Yagul village, Verkhonii Bemigh village, Baldeika village, Aidan-Chabian village, and Laka-Tighma village.

The landscape is varied with a natural valley. To the east, the region is surrounded by a 170-meter high plateau of the Petropavlovo region, a 214-meter plateau of Batirevo, and by 70-80 meters of the Tizhma River. The Kazan'-Ekaterinburg railway runs from the northeast to the southwest. The following rivers are also in the EPZ: Sukhoi Uruk, Yagulka, Luga, Tizhma, and Yamishka. In addition, the Vyatka River is 18 kilometers away from the CW stockpile. There are also seven ponds including Verkhniy, Bemigh, Siniyar-Bod'ya, Baldeika, and Kvartal. The CW stockpile is stored in a forest-like area consisting of a mixed vegetation of pine and birch trees. Forest covers about 60% of the EPZ territory, while 35% is covered by fields and settlements, and the remaining 5% by rivers and swamps.

According to the RF Government decision No. 208 from 24 February 1999 on EPZs around CW stockpile and destruction facilities, there must be a complex with special emergency plans for collective and individual protection of the citizens and the environment.

The main human activities that influence the environment

The main characteristics of the Kizner regional environment are outlined in the federal report on the environmental condition of the Udmurt Republic between 2000 and 2004. The report is called "An Environmental Analysis of the Towns and Regions in the Udmurt Republic."

This report, combined with environmental research done by local environmental groups, leads to the following facts:

1. The CW stockpile activity (1946-1958)

The following information was acquired through analysis of interviews conducted in 1997 (72 people interviewed) and on 29-30 March 2006 (10 people interviewed):

Starting in 1946, both Soviet- and foreign-made munitions filled with standard explosives and chemical agents have been stored at this stockpile;

Each batch of munitions was put in different storage units. Chemical agent types and ways for their destruction were developed in chemical laboratories. Those who worked in close proximity to the munitions were equipped with personal protective equipment and gas masks.

The destruction of munitions loaded with mustard, lewisite, cyan-

hydric acid, and Clarke was done by military chemical specialists and the rangers of the Ural military unit. The destruction unit consisted on two incinerators of 15 square meters each. Their vertical walls were made out of rails and heavy-wall pipes, and measured 3 meters in height.

The munitions being destroyed were laid in three layers on firewood. Fuel was then poured over them, and ignited.

If possible, the munitions filled with cyanhydric acid and mustard were opened, drained of agent, and the remaining shells were thrown into the incinerator. If the agent was unknown, the whole shell was blown up separately. The incinerated munitions containing agent blew up under high temperature and their content was burned.

During the first day, filled munitions were burned in the incinerator. On the second day, the metal was scrapped and the incinerator is cleaned. Three-meter deep sand trenches were excavated forty meters away from the incinerator, where extracted chemical agent was stored with an alkali decontamination agent and the incinerated waste (except for the metal parts) was buried in the sand. The distance between these trenches and the Tizhma River is about 500 meters.

One trench could hold up to 5 barrels (200 liters) each of different agents. According to a bulldozer operator, G. Nazipov, the incinerators were dismantled and the facilities were razed to the ground during 1958-1959. Today, the munitions are destroyed with the KUASI-MM equipment used for projectile destruction, which is located within the technical territory. It is confirmed that there is no waste transportation across the border of the region. Everything is done within the technical territory.

2. The influence of the Bemishev brass factory on the excess of Maximum Allowable Concentration (MAC) for copper, zinc and arsenic

In 1914, the Trans-Siberian railroad was built on the region's territory on a mud foundation. Starting in 1939, road improvement was undertaken in the Kizner village for a few years. They used the slag from the brass factory located in the Bemigh village. The brass factory first opened in 1756 and was operational until 1882. It produced about 2,000 tons of copper, and accumulated about 8,000 tons of slag in the slag-heaps. That slag had been used for road support in the

swamp-like territories in the region, including the Kizner village. It is known that copper ore also contains arsenic, lead and zinc.

In 2004-2005, specialists for the Nature Department of the Udmurt Republic collected 42 soil samples from four places on the EPZ territory as follows: 6 snow-water samples, 10 natural surface water samples, 10 soil samples, 10 bottom sediment samples, and 6 waste water samples.

A chemical quantitative analysis showing the MAC excess as listed in the following table.

Table 1. MAC Excess

№ п/п	Place of sample collection	Date of collection	Iron (MAC = 0.1 mg/dm ³)	Manganese (MPC = 0.1 mg/dm ³)	Copper (MPC = 0.001 mg/dm ³)
1	r. Luga v. Kizner by the v. Kochetlo	30.06.2005. 19.10.2005.	- 1,4	- 4,7	1,8 3,4
2	r. Tighma, north-east side 100 m higher then point № 004	30.06.2005 19.10.2005	2,9 1,3	1,2 3,4	1,8 2,8
3	r. Tighma, north-east side 100 m adjacent to the point № 004	30.06.2005 19.10.2005	3,5 -	- 3,8	1,2 2,7
4	r. Tighma, north-east side 100 m lower the point № 004	30.06.2005 19.10.2005	3,1 1,7	- 3,2	- 2,6

Notice that the MAC excess appeared in all 4 collection points, mainly copper excess (3.8-3.9 MAC).

The quantitative chemical analysis showed the MAC excess of arsenic in soil (MAC for arsenic is 10 mg/kg) for loam and for clay soils as follows:

- Point 1 Kizner village (the crossroad of the railway and the highway): 1.5 MAC;
- Point 3 Kizner village, industrial zone, gas station to the south: 1.3 MAC.

According to the decree GN 2.1.7020-94 annex 1, the approximately allowable concentration (AAC) of heavy metals, including copper, in soil is the following:

- sandy and sabulous soil – 33 mg/kg;
- loam and clay soils (sour) – 66 mg/kg;
- loam and clay soils (neutral) – 132 mg/kg.

The intake points were:

- Point 1 – loam and clay soils (sour);
- Point 2 – sandy and sabulous soil;
- Point 3 – loam and clay soils (sour);
- Point 4 – sandy and sabulous soil.

Copper in excess of the AAC in soil is illustrated in points 2 and 4. The zinc excess is revealed in point 1 containing 1.3 (MAC for zinc is 100 mg/kg).

The bottom sediment samples were collected from loam and clay sour soils in the flood-lands of the Luga and Tighma Rivers. The copper amount is normal.

The analysis showed excess AAC for copper and arsenic, which is the result of slag usage by the Bemigh brass factory.

The allocation of the EPZ territory according to the threshold concentration (Zn, Ni, Co), to the gross containment of heavy metals (Zn, Pb, Ni, Cu, Cr, Cd), and also the ecological estimation of the soil in the Kizner region due to the chemical elements (Zn, Ni, Cd) containment.

Concluding Remarks



S. Baranovsky,
President Green Cross Russia

It is time now to make some concluding remarks for our two-day forum.

Next year it will be ten years since the international Chemical Weapons Convention has been signed and ratified by our country. Nine years ago we launched this event as a first anniversary celebration. At first, it started with a conference, then it was turned into a forum, while nowadays it has taken on the contours of a dialogue. We borrowed this concept from the US which had conducted such a national dialogue on chemical weapons destruction a number of years ago.

When I opened this forum-dialogue yesterday, just as last year, I began talking about the scheme or system for implementing chemical disarmament. This is a process involving four segments or sectors of society. While that may sound strange, this idea has proved valuable as a result of us having successfully conducted this forum.

The first sector of society is the local level. We have, for example, the director of the Kizner administration and the inhabitants of Shchuch'ye, Mirnyi, and Pochep all here today. I will not name those people individually, but they are all here. These people were not only sitting here and listening, but they have also been making presentations, asking questions, and receiving a huge amount of information. This sector is important to us and each side participating in the process of chemical disarmament should pay attention to their opinions. Therefore, we should involve this sector in the process to the maximum extent, that's what we are basically doing.

The second sector I was talking about consists of regional elites – that is, executive and legislative authorities. The Parliament Speaker of the Kurgan Oblast, who has been sitting to the right of me here, just spoke to us all. There have been deputy governors, ministers of government from Udmurtia, and others. We have had state officials of a very high rank from the Kirov Oblast, the first deputy governor from Penza, and other regional officials. So, the regional component has been very much involved in this effort too. The regional representatives told us a great deal that

probably would be of particular interest to our international community representatives. There was a question on why the international community should help you? You can find the answer to that question in the presentations of the regional representatives. Why the western community should participate in the process of destroying Russian chemical weapons? Due to the active participation of the regional representatives we have recently had an event of a regional scale: we have conducted the first regional forum-dialogue on chemical weapons destruction in the Kirov Oblast. We don't expect it to be the last one and are negotiating with the authorities of Bryansk Oblast on having the regional forum-dialogue there next year as well. So this second sector or segment of society has been actively involved, while receiving information and participating in this work for chemical weapons abolition.

The third and decisive sector for our country involves the federal ministries including the Federal Agency for Industry, our federal agency responsible for chemical weapons destruction today. Viktor Kholstov, the senior official in the Russian chemical disarmament process, took part in this forum yesterday. He gave a speech, answered all the questions, and resolved a great deal of issues for our participants; that is a very good precedent that our colleague, Sergei Kiriyyenko, had also established in this recent time period. The senior federal officials, Zinovy Pak and Viktor Kholstov, have always given public presentations and reported to civil society. That is a very good sign. The representatives of the Ministry of Nature, nowadays called the Ministry of Natural Resources, an agency that on the one hand destroys natural resources and, on the other hand, tries to protect the environment, also took part in our recent forums.

However, we seem unable to persuade the most important federal segment – deputies of Parliament in the Senate and the Federation Council – to participate in the forum, even though we have been inviting them for several years. We have written to the deputies from all six regions of chemical weapons stockpiling. Each year we invite, for example, Mr. Bezborodov who is very active in the press on the issue of chemical weapons destruction. But none of these deputies has ever paid much attention to our invitation or has demonstrated his/her public position, even though the representatives of Duma committees are present here today. In my opinion, we still have a long way to go before working out joint cooperation between us. I will apply other methods, apart from just sending them invitations, and I expect them to listen to what civil society request;

I will try to involve them into this process and explain what they, as people's elected representatives, can do to help solve these problems.

I am asking the regional representatives to put a pressure on them from inside. You have your own deputies, elected by you, your own state Dumas, and the representatives of your region in the Federation Council. It is one thing if we invite them on behalf of a public organization such as "Green Cross". But it is another thing when you, the citizens, the representatives of an electorate, demand their participation.

Next year we will celebrate our tenth anniversary of the historic Chemical Weapons Convention. That will be a very serious forum-dialogue. That's when we will need those elected representatives. That is why I'm urging you to make active efforts. From our side, we will help you.

This is a very pleasant moment. This year, as compared to previous years, we have several mass media representatives including one of the largest and most respected newspapers in Russia – "Rossiyskaya Gazeta", who are not just attending our briefings and press conference, but also participating in the work of the forum-dialogue. We are aware of the work they are doing in the federal center and in the local areas, and how important that work is today. It will no doubt help them in the future.

There are three outreach groups that cooperate with local populations: the public community represented by "Green Cross", military centers close to stockpiles, and those centers working along with "Rossiyskaya Gazeta". We need coordination meetings and a joint plan of cooperation in order not to duplicate each other's work. This will be done, of course. I hope that during the next forum-dialogue we will discuss this issue.

I also would like to highlight an important fourth sector for our country, notwithstanding the questions our donors pose to us: why do you need western aid when you can do everything yourself? Nevertheless, the participation of the international community in the process of chemical weapons destruction in Russia is a necessity. It seems to me that to discuss and ask such questions here has no meaning. One of the conditions for the Russian Federation to ratify the Convention nine years ago, a request made by the western community for Russia to demonstrate its political will and vote for the Convention, was the pledge by the West to help our country in the expensive chemical weapons destruction effort. Russia, at the time of ratifying the Convention in 1997, had no means to fulfill its obligations and carry out the enormous financial costs involved. Today we heard from our American colleague that the American program turned out to be twen-

ty times more expensive than was initially planned. At that time we were talking in Russia that one billion dollars would be more than enough. Today we talk about more than ten billion dollars in program costs. That is why it is good to have the representatives of the Organization for the Prohibition of Chemical Weapons here too. It is the leading organization born under the name of the United Nations. Thanks to Sergei Kisselev who has come with greetings from his organization, but has also participated with an interesting report. It's helpful we are supported by the Organization for the Prohibition of Chemical Weapons, and this organization has actively participated in all of our forum-dialogues to date.

Ten donor countries were present at our forum; we have had G-8 Global Partnership representatives who represented their countries at different levels. All of them have taken an active part in this forum. We unfortunately missed official government representation from one country – the United States. I will talk about that a bit later.

The international non-governmental sector has also been well represented here. The representatives of American non-governmental organizations told us a lot of useful things, and that experience is priceless. Undoubtedly, it is highly needed by us, and will continue to be relevant to us in the future. I would also like to mention Green Cross Switzerland and Global Green USA, our Swiss and US affiliates, who have participated from day one in organizing our forum-dialogues.

We also have a new participant – a recently established Green Cross Canada – whose representative took part in our program. We are happy to have him join us and hope that the Canadian Government, which has been helping us to conduct our forum-dialogue, will do it in mutual cooperation with Green Cross Canada now.

And now regarding the USA. We continue to learn from the experiences of the US. Because we were both involved in an expensive arms race, perhaps we are now learning something but also still suffering from that experience as well.

Today we have a disarmament race rather than an arms race. Implementation of the Chemical Weapons Convention is part of the disarmament race. Americans started much earlier in their own chemical destruction campaign, and now they are ahead of us, so we have a lot to learn from them. And we are doing that. A lot of what we have brought into Russian society, including a culture of Citizens' Advisory Commissions for chemical disarmament, we have borrowed from the US.

Today we talked about just such a commission in Russia. We borrowed a very good idea, it works, and it is quite effective. It is a real key unit of civil society.

We have also learned from the US while establishing our national dialogue; this idea was borrowed from the US as well. They were a step ahead, and this good idea was put into reality and helped a lot here. Having looked to the West, we have also created local information and outreach centers, something we never experienced in our country before; we borrowed this culture too and it has proven to be very useful.

That is why the US has a responsibility to serve as a tutor to us, but it is a pity that we don't have any official US government representatives among our participants today. They could help our government by explaining how best to cooperate with civil society as civil society in our country is in its initial stages of development. In America it has been in existence for a long period of time, and the US Government works in mutual cooperation with civil society. If American representatives would be present here, they could have shared their experiences, and could probably have taught us something.

That is why I am inviting US government representatives to our next forum-dialogue in 2007 to present their helpful reports.

And finally, my main conclusion. It is not for nothing that we are working and debating here this week. This has been a real dialogue with lots of opinions differing from each other. Sometimes they have a common ground, and sometimes not, but it is in the dialogue that the truth is born, and I think we are moving in the right direction.

I would like to emphasize one more time that next year we will be celebrating our tenth anniversary, a very important date for global chemical disarmament. Ten years ago, on 5 November 1997, the Russian Federation ratified the Chemical Weapons Convention and made an historic decision on its destiny. If Russia had not ratified the Convention, the process of chemical disarmament, perhaps, would not have even begun. That is why we have to draw some conclusions next year. A decade is a serious period of time. We need to talk about the current situation, what we are going to do next, and how to finish this abolition process. I would also like to note our wish to have the last forum-dialogue in 2011. We count a lot on that date, but I am concerned that we will have to convene these meetings thereafter as well. We will see. As you can see, this idea works in an effective manner.

And my final point. Green Cross had a dream – to apply more than ten years of experience in chemical disarmament to a process of equal importance – the process of nuclear disarmament. There is less transparency here than in chemical disarmament, and there is no connection between civil society, federal government, and international structures. As a member of the Public Council of RosAtom, I presented such a proposal to Sergei Kiriienko, the new Minister of RosAtom who has been present twice at our forum-dialogue; he is also still the official Chairman of the State Commission on Chemical Disarmament. S.Kiriienko has agreed that there are a lot of useful ideas for nuclear industry to borrow from our forum-dialogue on chemical disarmament. On 3-4 July 2006 we conducted our first conference on nuclear energy and nonproliferation, a very important step forward. I would like to report to you that the last meeting of the Public Council of RosAtom, since our July conference, decided to support a second conference – a forum-dialogue – on nuclear disarmament and nuclear energy in April 2007.

We count on our Global Partnership colleagues that support us in this chemical disarmament process, and we hope they will also support us in the nuclear arena as well.

As you can see, it is good to have the support of all four sectors of society – local, regional, federal, and international; once we come to positive results in one sector, we transfer this experience to another sector, which is important to humanity as well.

I would like to conclude on this optimistic note. Let me thank our sponsors, those countries that have supported our forum-dialogue, one more time. These include Canada, the US, Switzerland, and the Netherlands. Let me express my appreciation to all these countries, and to all those who found time to come to Moscow this week, particularly to our American non-governmental colleagues who flew over the ocean and made presentations to us. Thanks to all of our Russian colleagues too who came from the faraway regions of our country. I personally commit to do everything possible to continue these important forum-dialogues in the future.

Thank you to all.

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NATIONAL DIALOGUE FORUM

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