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Ninth Russian National Dialogue on Chemical Nonproliferation and Destruction

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The Legacy Program

Operating on the principle of “cooperation, not confrontation,” the Legacy of the Cold War Program (otherwise known as “The Legacy Program”) engages in neutral, third-party facilitation of issues related to arms control and disarmament, demilitarization, technology development for safe weapons destruction, nonproliferation, military base cleanup and conversion, and socio-economic development of communities impacted by weapons stockpiles.

More specifically, the Legacy Program works to:

- Support the safe and environmentally-sound demilitarization of weapons of mass destruction – nuclear, chemical, and biological – as integral to the implementation of arms control treaties;
- Provide access to information for communities near weapons destruction facilities and stockpiles and ensure open channels for dialogue between citizens and authorities;
- Promote stakeholder input and involvement in demilitarization-related decision-making processes through citizens’ advisory commissions, public hearings, and national dialogues;
- Address the weapons-related health, environment, and welfare concerns of affected communities by working through schools, hospitals, local government, and the media to promote understanding of weapons destruction processes, encourage emergency preparedness, and support sustainable economies and democratic policies;
- Educate legislatures and policy-makers in Russia, Europe, and the U.S. on the importance of international support for demilitarization and organize international gatherings of officials to encourage dialogue, collaboration, and consensus;
- Collaborate with like-minded groups to advocate for continued funding of demilitarization and nonproliferation efforts, in particular the U.S. Cooperative Threat Reduction (CTR) Program and the G-8 Global Partnership Initiative; and
- Mediate and facilitate globally to make progress in arms control, disarmament, and nonproliferation.

The Legacy Program spearheads a range of public outreach and education initiatives. In Russia, for example, the Legacy Program maintains 13 public outreach and information centers to educate and support communities near chemical weapons stockpiles and nuclear submarine dismantlement sites. The centers are an important resource for residents seeking access to specific information and a channel to communicate with authorities. The Legacy Program also organizes forums promoting frank exchange on weapons and security issues. Two of the most important are the “National Dialogues” on Russian chemical weapons destruction, and on nuclear energy, society, and security held annually in Russia. A similar “Legacy Forum” is also held annually in the U.S. on global weapons demilitarization and nonproliferation.

The Legacy Program is an international program effort of Green Cross International managed primarily by Global Green USA (Washington DC), Green Cross Switzerland (Basel and Zurich), and Green Cross Russia (Moscow). More information is available at www.globalgreen.org, www.greencross.ch, www.green-cross.ru, and www.gci.ch.

**Green Cross Russia
Green Cross Switzerland
Global Green USA**



Russian Chemical National Dialogue

Global Green USA



Ninth Russian National Dialogue On Chemical Weapons Nonproliferation And Destruction

**31 October – 1 November 2007
Moscow, Russia**

**Green Cross Russia
Green Cross Switzerland
Global Green USA**



**Ninth Russian National Dialogue On
Chemical Weapons
Nonproliferation And
Destruction**

**31 October – 1 November 2007
Moscow, Russia**

This collection features the proceedings of the Ninth Chemical National Dialogue on the Implementation of the Chemical Weapons Convention by Russia as of the end of 2007. This Dialogue was organized by Green Cross Russia, and its partners Green Cross Switzerland and Global Green USA, and was held on October 31 - November 1, 2007 in Moscow, marking the tenth anniversary of Russia's ratification of the Chemical Weapons Convention. Those in attendance included:

- Representatives of regional authorities in areas where chemical weapons are stored and destruction of chemical weapons is taking place; federal departments and agencies, communities and other Russian organizations involved in carrying out the Federal Target Program for Chemical Weapons Destruction;
- Representatives of foreign countries involved in the destruction of chemical agents in the Russian Federation; and
- Representatives of the media, non governmental organizations and the public.

The organizers of this Dialogue would like to express their gratitude to the Governments of Switzerland, the United States, the Netherlands, Finland, Great Britain, Canada and the US foundation Trust for Mutual Understanding. These entities have made financial contributions that made this Dialogue possible.

Dialogue Organizers: Green Cross Russia, Green Cross Switzerland, Global Green USA¹ and the Russian Federal Agency on Industry.

Sponsors: Governments of Switzerland, the United States, the Netherlands, Finland, Great Britain, Canada, and the US foundation Trust for Mutual Understanding.

Special thanks to the editing and translation team are noted on the last page of the book.

The presentation texts and research papers that are published in this Dialogue's collection have been translated and edited into English from original Russian versions, and are the sole opinion of the authors.

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Foreword

In light of the growing terrorist threats, international security is more important than ever. With that and other circumstances in mind, Russia is taking a proactive approach to completing its obligations under the Chemical Weapons Convention. Not even one gram of deadly substances that could be used against mankind should be left on the face of the earth.

The launch of the third processing line at the chemical weapons destruction (CWD) facility in Mirny (the Kirov Oblast) in September demonstrates that Russia is successfully carrying out its CWD responsibilities to the global community. In Gorny (the Saratov Oblast), the first-ever Russian plant for the disposal of chemical agents was put into operation in December 2002; it has already destroyed all of its chemical weapons (CW) stockpiles. Today, the facility in Kambarka (the Udmurt Republic) has already destroyed over 1,700 tons of CW, and the Maradykovsky facility (the Kirov Oblast) has neutralized nearly 2,000 tons of chemical agents. Overall, these numbers combined represent nearly 13% of all of Russia's CW stockpiles (40,000 tons).

These facts were announced at the Ninth Chemical National Dialogue, organized by Green Cross Russia, Green Cross Switzerland and Global Green USA together with the Federal Agency on Industry on October 31 - November 1, 2007 in Moscow.

The heads of local administrations, the residents of areas affected by CWD, regional authorities, federal authorities, representatives of foreign states providing financial aid for the CWD process in Russia, media representatives, academics and the public all took part in the Dialogue — that's nearly 150 experts from ten different countries.

In emphasizing the importance of the Dialogue, Mr. Sergey Baranovsky, President of Green Cross Russia, stated: "We need this Dialogue, and we will continue to need it for a number of years until we complete the destruction of the very last milligram of chemical weapons; many problems will continue to arise, and they can only be solved when we look each other in the eye."

Green Cross Russia Press Service

Welcoming Remarks



Sergey Baranovsky
President of Green Cross Russia

Dear guests and conference participants!

First, I would like to introduce Nikolay Mart'yanov, the Head of the Office of the Presidential Representative in the Privolga Federal District. He is here on behalf of Alexander Konovalov, who is now the Chairman of the State Commission for Chemical Disarmament.

Dear friends, I would like to say a few words about the circumstances of this meeting and what lies ahead. Ten years have passed since November 5, 1997, when the Russian Federation ratified the Chemical Weapons Convention and submitted the ratification documents to the United Nations. In order for this to happen, several conditions had to be satisfied. First, a political decision needed to be made. This required a massive effort at home and by representatives of the international community. Ultimately, after major debates in the Russian society and the clash of different points of view, our leadership concluded that Russia was ready to ratify the Convention and that the Parliament could take the necessary steps to do so.

Many shared the well-known position of Gen. Albert Makashov, a deputy of the Communist Party and prominent military leader, who said at one of the hearings that chemical weapons were national assets and that the Russian people paid a very high price for them. He felt that, if other countries wanted Russia to destroy its arsenal, they should pay for it. This point of view had solid arguments behind it and we had to do a lot of explaining to the public.

There was also another problem. Everyone understood that, in order for Russia to fulfill the Convention's requirements, it would need to destroy 40,000 tons of chemical weapons. Given the difficult situation in Russia, this challenge was taken on by a group of Western countries that later formed the Global Partnership (GP) within the Group of Seven, later to become the Group of Eight. They promised significant financial aid to Russia, and the Russian Federation increased its own financing for the chemical weapons destruction (CWD) process.

Then another problem appeared. This was something that was not taken into consideration while we prepared to ratify the Convention, and it was not given much thought immediately afterwards. How will the Russian public react? The destruction of chemical weapons had to be conducted at the locations where the arsenals were kept. What would the residents of the affected regions and communities say? This turned out to be a very significant problem and we are now addressing it head-on with the participation of civil society, public authorities, and the international community. The

first step was taken by the government of Switzerland, which started funding public outreach efforts. Green Cross Russia, together with Green Cross Switzerland and Global Green USA, and later with the assistance of other organizations, we started our work with the public. The Russian government eventually started to participate in this effort and started to provide funding for it as well. This became a task of national significance and the government has taken an active approach.

These are the three fundamental problems that had to be resolved, and all of the parties I mentioned have been involved in the process. This Dialogue, which Green Cross Russia started organizing ten years ago, is one of our important opportunities to compare notes. It has since become a true tradition. Russian government representatives, the public, and Global Partnership representatives from countries that are helping Russia meet its obligations under the Convention have all grown to look forward to this event. It is a great pleasure for me to open this anniversary Dialogue conference. My hope is that all of us will speak as openly as possible about the issues that still need to be resolved before we destroy the very last milligram of these terrible weapons left to us by the previous generation.

**Message of the Director-General of the Organisation
for the Prohibition of Chemical Weapons (OPCW)
Addressed to the National Dialogue Meeting on the Russian
Implementation of the Chemical Weapons Convention**

Ambassador Rogelio Pfrter

It gives me great pleasure to convey my greetings to the National Dialogue Meeting on Russian implementation of the Chemical Weapons Convention (CWC). I appreciate the importance of this event and commend the Federal Agency for Industry and the Green Cross for organizing it.

This meeting underscores the importance of the effective implementation of the Convention in which Russia plays a key role. The progress made by the Russian Federation in eliminating its chemical weapons stockpile, especially, the enhanced rate of destruction accomplished recently are indeed, commendable. We are all aware of the significant technical and financial challenges faced by the Russian Federation in this endeavour.

I have however, consistently encouraged the Russian Federation, which has demonstrated the necessary political will and commitment to get the job done. I wish also to acknowledge the critical role played by Russia's partners in extending assistance to augment Russia's own efforts. I am sure the Russian Federation's resolve will enable it to fulfil its obligations for chemical disarmament under the Convention.

The Convention provides an effective, comprehensive and non-discriminatory legal instrument to verifiably ensure both the destruction of existing stockpiles of chemical weapons and the prevention of their proliferation. The Convention further supports effective domestic implementation and aims at promoting international co-operation in the peaceful uses of chemistry, as well as the right of States Parties to seek protection should they ever be threatened by or attacked with chemical weapons.

This year as we marked the 10th anniversary of the entry into force of the Convention, we have been assured of the dedication of our States Parties towards realizing fully the noble goals of the Convention. At the same time we are also aware of a number of critical challenges that lie ahead including the elimination of all declared chemical weapons by 27 April 2012.

I am sure the deliberations and discussions at the National Dialogue meeting will consider the salient issues that impact the effective operation of the Convention. I look forward to the conclusions of this important meeting and wish you great success.

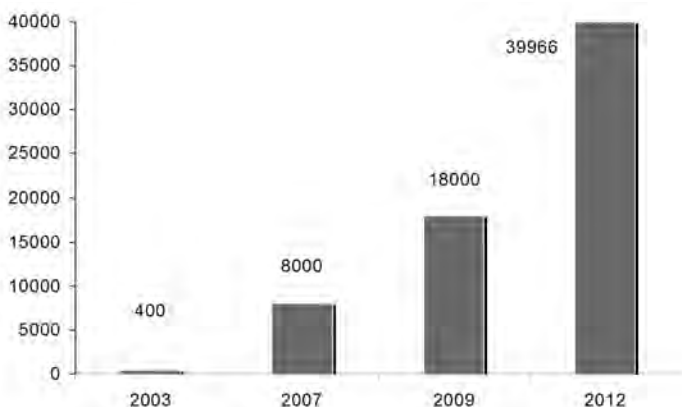
The Federal Target Program for the Destruction of Chemical Weapons: Providing Public Information and Raising Awareness



Viktor Kholstov
Deputy Head, Federal Agency on Industry

Dear Dialogue participants!

In April 2007, Russia completed the second stage of its obligations under the Chemical Weapons Convention (CWC) after destroying 20% of its stockpiles since the Convention came into force — that's 8,000 tons of chemical agents (see Figure 1).



*Figure 1. Scheduled Deadlines for Chemical Weapons
Disarmament in Russia (tons destroyed)*

Vigilant attention from the Russian President, the Russian Government, federal authorities and deputies, as well as their understanding of the problem and their much-needed participation and assistance have helped bring the much-needed resources for the chemical weapons destruction process..

‘Heroic’ is the only word that can do justice of the experts at the Federal Department for Safe Storage and Destruction of Chemical Weapons (FUBKhUKhO), scientists, design engineers and construction workers who have helped us achieve our goal.

By analyzing our achievements in chemical weapons destruction (CWD) it has become clear that this problem cannot be resolved without the willing support of the population in the regions where chemical weapons (CW) are stockpiled and must be destroyed.

Just about all of the problems associated with CWD can only be resolved by adopting a sufficiently open federal target program aimed at increasing the amount of attention devoted to relevant social issues, the development of infrastructures in the regions and providing the population with the information they need.

Since 2001, the quality of available information about the CWD process in Russia and public outreach efforts have gradually improved: at a meeting of the State Commission for Chemical Disarmament, a Concept for an information campaign for the Federal Target Program on the destruction of chemical weapons stockpiles in the Russian Federation (FTP) was adopted and approved. The Concept stated that an information campaign for actions planned under the CWC should be based on a common ideology and aimed at achieving a specific goal: the creation of the best possible external and internal conditions for FTP implementation. Several specific goals and tasks were set for information support:

- Reducing social tension and protests within the population, which in large part depends on the implementation of the FTP as whole, as well as the implementation of its different stages;
- Fostering a positive attitude and increasing the population's trust in CWD-related efforts;
- Demonstrating the support for these operations of all legislative and executive bodies and agencies at federal, regional and local levels;
- Reinforcing international cooperation and stimulating foreign aid for Russia's CWD operations.

We have identified the different levels and priorities of the work to be completed: information campaigns are conducted at regional, federal and international levels, comprising an interrelated system with a common priority at the regional level. Additionally we have identified priorities for each different region and the required degree of intensity of public outreach efforts, depending on the features of the region, the stages of CWD, the significance of the CWD measures and the socio-political situation.

In 2002-2003 government information centers were set up in the regions. Based on their experience, they were reorganized into Regional Information Centers (RIC) in 2003-2005 in order to increase effectiveness. The RIC were set up at the premises of former offices of the state-owned newspaper *Rossiiskaya Gazeta* in the Oblasts of Bryansk, Kirov and Kurgan. The RICs in Izhevsk and Penza were built together with the participation of the region's leading media outlets. An International Editorial Information Center (IEIC) was set up in the Saratov Oblast in order to streamline RIC activities concerning CWD.

Public Relations Groups (PRGs) are organized at every CWD facility. In addition to their other tasks, the RICs and PRGs provide correspondents and media reporters with the information they need in order to prepare print and video reports. They also provide assistance in arranging visits to CWD facilities.

The result is a unified system of gathering, analyzing, exchanging and disseminating information about CWD issues in Russia at the federal and regional levels (see Figure 2).



*Figure 2. The Organizational Structure of the Russian Government's
CWD Public Outreach System*

The Federal Agency on Industry (previously the Russian Munitions Agency) and FUBKhUKhO function as the coordination center for work conducted during all stages together with a general contractor. These three parties are the organizers and participants in carrying out administrative and scientific work in addition to information outreach and educational efforts at all levels.

Information outreach became most effective when Rossiiskaya Gazeta became the general contractor (executor) for CWD awareness education and pooled its efforts with ITAR-TASS—Russia's largest news agency—and ARMS-TASS News Agency—an independent non-profit organization. Over 40 other institutions and organizations are also co-executors in the outreach program.

It is this kind of cooperation that has supported the development of a united program.

This program envisages the use of professional, administrative, educational and technical information resources and the advantages offered by a leading state-owned newspaper and news agency in the interest of effectively providing the public with information. First and foremost, these advantages include opportunities to prepare and distribute information. For example, ITAR-TASS's distribution in Russia and abroad numbers in the thousands; it has nearly 100 news agency partners worldwide, with offices in 79 countries. *Rossiiskaya Gazeta* is an official publication of the Government of Russia and has 29 offices within Russia and three offices in other countries.

The strategic goals of this program include explaining the Russian government's policies and stimulating a positive attitude among citizens with respect to chemical disarmament.

For these purposes, a system has been created to organize and carry out work where federal, regional and local government agencies and authorities collaborate very closely with one another and with the relevant media outlets, social organizations and the residents of areas where CW are stockpiled and destroyed.

Under the program, a great deal of attention is devoted to proactively counteracting disinformation and various speculations about CWD.

In 2005-2007, the editorial office of *Rossiiskaya Gazeta* and its co-executors accomplished the following:

- Explaining Russia's government policies on CW stockpiling and destruction;
- Fostering positive views about CWD-related matters among citizens and social organizations within the constituents of the Russian Federation;
- Conducting studies and analyses of public opinion and preparing recommendations and proposals;
- Preparing and distributing periodical information and reference literature;
- Equipping and maintenance of information database;
- Monitoring the media.

The following is a list of key subjects that are addressed in explaining the Russian government's policy on CW disarmament and disseminating information among citizens, the international community and the Russian public, federal and local self-governing bodies, and the relevant international governments and international organizations:

- The process of meeting Russia's obligations under the CWC;
- Safety and protection of the environment during CW storage and destruction;
- Selection of CWD technologies;
- Design and construction of CWD facilities and development of social infrastructures in surrounding areas;
- Conversion or destruction of CW production facilities and remediation;
- Protection of the health of CWD workers and the population living and working in emergency planning zones (EPZ);
- Medical treatment and prevention, public health and hygiene measures, and social improvements for citizens living in EPZ;
- Creation of additional jobs;
- Measures for the social protection of citizens living and working in EPZ and in regions where CW are stored and destroyed.

The outreach effort takes many forms, including:

- Collaborating with print, television, radio and electronic media;
- Publishing and distributing print media: books, magazines and reference literature, leaflets, brochures, booklets and specialized publications;
- Organizing and conducting measures such as: press conferences, roundtable discussions, telephone hotlines, visits to facilities that are under construction as well as operating facilities, arranging meetings, seminars, using a range of different methods and approaches to interacting with the public and public organizations;
- Monitoring federal and regional media outlets;
- Conducting sociological studies.

In terms of quantitative indicators, the editorial office of *Rossiiskaya Gazeta* has prepared over three million copies of informative, themed and analytical materials at the federal and regional levels on a wide range of topics related to chemical disarmament. To name but a few of the topics covered:

- Official events dedicated to Russia's completion of the second stage of CWD at the Kambarka facility in the Udmurt Republic on April 20, 2007;
- The progress of and outlook for construction of the CWD facility in Shchuch'ye (the Kurgan Oblast), the local development of social infrastructure and assistance from regional and local authorities;
- An analysis of the CWD process in Russia in 2004-2007;
- Russian CWD technologies;
- An evaluation of the health of people who live and work in EPZs, the creation and performance of a system for industrial environmental control and monitoring industrial zones and health protection zones (HPZs) at and around the Maradykovsky facility (the Kirov Oblast), as well as operations at the regional center for Government Environmental Control and Monitoring;
- Progress of the construction of the CWD facility in Leonidovka (the Penza Oblast) and its role in completing the third stage of CWD;
- The ten-year anniversary of Russia's ratification of the CWC: achievements and progress in completing the third stage of the Convention.

Federal publications and regional news columns are published on the websites of *Rossiiskaya Gazeta* and the open-source online magazine *Khimicheskoye Razoruzheniye* ["Chemical Disarmament"]. This helps expand the distribution of print media and, as a result, the number of readers, several times over. Thanks to the Internet, printed articles have a lifespan longer than just the day on which they were published in the paper. Instead, they are accessible for an extended period of time, providing a large number of Internet users with the opportunity to learn more about chemical disarmament.

In order to expand readership, the general contractor works together with prominent print media in regions where CW are stored and destroyed. Thirty-six Oblast, Rayon and local newspapers are working together with *Rossiiskaya Gazeta*'s editorial office and representative offices on a contractual basis alone. At present, approximately 70 publications on the CWD FTP have been released. The overall distribution of these newspapers over a period of nine months amounted to 7,428,000 copies.

Media representatives are invited to all events held under the CWD FTP. Journalists have begun to take a more professional approach towards CWD topics: instead of simply reporting information, more and more journalists are beginning to analyze the situation from different angles, and their publications demonstrate an attempt to help people get to the bottom of things. Objective information in regional and Rayon media outlets also provides an antidote against outright disinformation, which still appears from time to time despite the openness and availability of information about CWD.

Work is continually carried out to educate the population on the full spectrum of issues related to the storage and destruction of CW in regions where CWD is being carried out on local television and radio stations. So far, 32 television reports and 36

radio reports have been broadcasted on the topic of CWD.

The ARMS-TASS News Agency, a co-executor in the program, provides prompt information outreach support under the CWD FTP on ARMS-TASS and ITAR-TASS channels. Over 250 information products have been prepared and released via ARMS-TASS and ITAR-TASS, including articles, interviews, commentary and assessments on ITAR-TASS's global service channels in English, French, German, Spanish and Arabic.

Attempts are continuously made to educate the population and the public via the Internet by providing regular updates and technical support for the web resources of the online magazine *Khimicheskoye Razoruzheniye*. It is thanks to this publication — a joint project among the Federal Agency on Industry, the FUBKhUKhO, ITAR-TASS and ARMS-TASS — that a channel has become available through which open-source information can be obtained on various CWD-related topics. The site contains statistics, interviews, reports published in the print media, including in regional media.

Of course, we understand the difficulty in using publications, articles and television and radio reports to sway the views of the population about existing problems. An extensive range of actions, formats and methods is needed, in addition to a regular dialogue between all branches of the government and the population in order to help achieve an objective attitude about CWD among the people living in EPZs. It is with this goal in mind that other tools are used to provide timely, regular and objective information to all strata of the population.

Several press conferences have been organized featuring experts in CW storage and destruction, representatives of federal and regional authorities involved in the CWD FTP, and representatives of public organizations.

In 2007, public outreach events dedicated to the Convention's ten-year anniversary organized as exhibitions have been particularly effective. Take, for example, the photo exhibition on the Destruction of chemical weapons stockpiles in the Russian Federation and an exhibition of children's drawings from the regions that was displayed at the Organization for the Prohibition of Chemical Weapons headquarters in The Hague. This photo exhibition and the exposition of the children's drawings were also displayed in the TASS Windows in Moscow.

Sociological studies were conducted under the CWD FTP at Maradykovsky, Kambarka and Shchuch'ye. The poll results show that the volume of information provided on the storage and destruction of CW, the construction of social infrastructure, and the impact of CWD on the environment and health of local populations has increased considerably, but it is still not enough for the people. This reveals the need to use the most effective formats and platforms of information as widely as possible.

In order to disseminate scientific information among the widest-possible circles of the population, the RICs and PRGs regularly hold meetings with local residents in schools, institutions and companies in areas where CWD facilities are located and feature the authorized representatives of these facilities, the local self-government and the local media.

Roundtable discussions are one of the most promising formats for the government to interact with the public and public organizations. Discussions are held on relevant

themes in all regions affected by CWD with a representative of the government, the regional and local authorities, scientific research and medical institutions, supervisory bodies and staff members from the FUBKhUKhO.

This is an effective platform that facilitates an open dialogue on an extensive range of CWD topics in the region, while providing representatives of public organizations and the media with an opportunity to obtain objective information first-hand.

Hotlines are another resource via which people can get answers to their questions.

A large team of experts in various fields are involved in the public outreach and education effort. Today I would like to express a word of thanks to everyone who has made a contribution, especially: Mr. Sergei Ptichkin, Ms. Svetlana Dobrykina, Mr. Pyotr Chechilo, Ms. Natalia Ilyina, Mr. Oleg Dubrovsky, Ms. Yulia Sizova, Mr. Sergey Palamarchuk, Mr. Alexandr Denega, and Mr. Vladimir Fyodorov.

I would like to express my gratitude for our foreign guests and colleagues who are here, and those who were unable to be here today, for the major contribution they are making to the public outreach effort within the CWD process in Russia.

I would also like to thank the officials of Russia and the public organizations that have provided objective explanations of government policy on safe CWD.

I would like to thank the management of Green Cross Russia (GCR) and the regional branches of GCR, which did not wait to be asked to take such an active role in organizing work with the public. I would like to note the particularly proactive role of the representatives of the Kirov Oblast, especially Tamara Ashikhmina; Ivan Manilo and Galina Vepreva from the Kurgan Oblast; and Vladimir Konyashin and Vladimir Novikov from the Udmurt Republic.

Public outreach and information is an important component in the CWD FTP. Thanks to the objective and timely provision of information about CWD events and developments, the availability of information and the extensive and proactive use of a number of different information platforms and products, we are fostering relations with the public based on trust and mutual understanding between the people who are responsible for this program, and the residents of areas affected by CWD.

The scale and the national and international significance of CWD in Russia, as both a nationwide challenge and practice in public outreach and working with the public and public organizations, require proactive efforts across the board towards streamlining and improving the efficiency of information resources.

Questions and Answers

Mr. Aleksandr Kirilin: *The public is often concerned not only about safety and order when CWD is in progress, but about what will happen after CWD is completed. This concern is related to an entire collection of questions - safety issues and job creation in the area, etc. People get used to it. What tasks are planned or what experience has already been gained in Gorny in the Saratov Oblast, for example?*

Mr. Viktor Kholstov: This is a very important question for the public. Today, at the CWD facilities that are currently operating, most of the people who live in areas surrounding these facilities also work at these facilities. That is why the program includes

an action plan to ensure that the existing infrastructure built around CWD facilities is not lost. For that purpose, measures are planned to convert facilities into production plants that will be in demand and best suited to the features of each region. Certainly, it is very difficult to just look at today's market conditions and say exactly what will be produced in each region. One needs to understand that the key facilities are working towards destroying CW stockpiles by 2012, which is why plans to convert these facilities should be drawn up two years prior to that deadline. Before then, work should be done to determine what lines of business and production may be introduced, what actions need to be taken in order to convert CWD facilities and ensure the safety of the people and the environment. This work requires all levels of government to be involved: administrative, federal, regional and municipal. These preparations are being planned for and will be completed. As regards Gorny, today the people who were employed at the CWD facility are for the most part (over 90%) still employed at this facility. The Gorny facility is currently destroying and disposing of hydrolysates produced by the CWD process. As we implement the CWD process and convert facilities after the completion of that goal, neither the people nor the infrastructures will be abandoned.

Mr. German Frizorger: *I would like to know how financing has been allocated by the Government of Russia this year and how capital investments are being used. What can we plan for 2008 and what can we expect in terms of work being carried out in the regions? What international assistance did Russia receive in 2007?*

Kholstov: This is a very broad question, but I would like to say the following: as far as the CWD FTP is concerned, there are two main sources of financing. First of all, there is the federal budget. In line with the program, 27 billion rubles should be allocated from the budget this year. That is a significant amount of funds and it is meant to develop the operating capacity of the Maradykovsky facility in the Kirov Oblast, complete construction of the CWD facilities in Kambarka (the Udmurt Republic), Leonidovka (the Penza Oblast) and Shchuch'ye (the Kurgan Oblast) as well as to complete construction of elements of the social infrastructure in regions that are ready for it, where the corresponding documentation is in place, and where a list of social infrastructure elements has been drawn up and approved under the proper procedures.

Foreign resources are the second important component, including the technical support aimed at intergovernmental agreements. Here I would like to first emphasize the aid from the United States. This year, a management system for the construction of the Shchuch'ye CWD facility was reorganized, and that helped us resolve some problems related to the organization of the project in a timely manner. The reorganization of the construction project management has already been put into place for that facility. Furthermore, this has helped free up additional funds that were previously used to manage the firm that was hired for these purposes by the US. I would like to express my gratitude to the management representatives and the US Government, who have gone to such efforts and who have helped us remain confident that the facility will be completed.

I would also like to express gratitude to the Government of Canada, which is currently involved in work relating to the purchase of equipment and the construction of access railways to the Shchuch'ye facility. Thank you to the Government of France, which has made the decision to allocate funds for equipment for that facility. Thank

you to the Government of Great Britain, via which a number of countries have offered technical support. I would also like to express thanks to the Swiss Confederation, with whose efforts we have already created and launched a health monitoring system to track public safety issues. There are projects for other facilities as well: Germany decided to allocate funds for the construction of one of the structures at the Pochep facility in the Bryansk Oblast. There are plans to sign an agreement with the Swiss Confederation on the power supply at the Leonidovka facility.

A proactive approach has allowed us to obtain larger volumes of financing than were initially planned for this year, but in general we should recognize that unfortunately, we have only received 25% of the two billion dollars in funds that were promised by our foreign partners. That is, unquestionably, an insignificant amount considering that part of these funds are spent for the management of the foreign firms taking part in the project, and the facility itself receives a minority of that financing. This creates some complications for program implementation.

In terms of the outlook for 2008, the same amount of funds will be allocated from the federal budget, and the priority will still be the facilities in Shchuch'ye, Leonidovka, Pochep and Kizner. Work on social infrastructure depends a great deal on how ready we are to allocate funds for their implementation, based on the extent to which solutions are ready.

Ms. Ludmila Komogortseva: *Since 1994, when the decision was made concerning dual-stage technology, the residents of the Pochep Rayon have been assured of the safety of dual-stage destruction technology. In March 2007, an intergovernmental agreement was signed between Germany and Russia, which resulted in the switch from dual-stage technology to incineration. How do you plan to work with the public now to assure them that incineration — which was so vehemently rejected — is the technology we need?*

Kholstov: First of all, it should be said that in the case of dual-stage destruction technology, chemical agents will be eliminated after the first stage; they disappear and form a reaction mass, or hydrolysate, which is much less toxic than chemical agents. Our experience in Kambarka has shown that this technology is highly effective, not only in terms of a technological process, but also as a way of ensuring the safety of service personnel, the public and the environment. Based on a wide range of issues and comparative assessments, it was decided that high-temperature processing of the hydrolysate will be a much simpler process at the facility (moreover, the facility is located at a considerable distance from any villages or settlements) compared to transporting this reaction mass (hydrolysate) across Russia.

Ms. Galina Vepreva: *I am thankful that the third Program was changed to everyone's benefit. This summer, the Russian Government issued Decree No. 421. My question is: there are so many different agencies involved in the Program: is any financing planned for their activities, for the facilities and in general?*

Kholstov: Under the procedures we have today, all of the agencies are financed from budgetary sources if they are at the federal or regional level. That means regional bodies are funded from the regional budgets. Along those lines, no structure receives funds directly from the program in order to support any agency or body. If there is a need for equipment, then that is dealt with within the decision-making framework for

providing production, for example environmental, monitoring resources.

Mr. Roman Shayakhmetov: *I would like to express thanks on behalf of the public for the efforts that are being made today regarding the construction of social infrastructure facilities in the Kizner Rayon. Your report did not mention anything about the construction in the Kizner Rayon. We only know that the work is to be completed in 2012. How is the construction of the facility coming along?*

Kholstov: The construction of the facility in Kizner was undertaken in 2005 in line with the revision that was adopted by the Program. That is why, after the decision was made to construct the facility, there was a need to develop a feasibility study and go through all of the steps to get that approved. That includes the main state expert review board. These stages were completed in August 2007, and the feasibility study for the construction of the CWD facility was received. Today we have everything required in order to start work. The key parts of the project are planned for next year so that by the beginning of 2009, the first processing line of the facility can be put into operation. As far as the social infrastructure, it is being built, and we allocated additional funds this year to account for design documentation that has now been provided and in response to requests from the Udmurt Republic.

Russia on the Road to Chemical Disarmament



Andrei Shevchenko
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Chemical Weapons (FUBKhUKhO)*

Chemical weapons (CW) were first used as weapons of mass destruction during World War I. Over one million people suffered injuries from exposure to CW.

The devastating aftermath of the use of CW gave the impetus to progressive-minded people to consider an international ban. A constraint on its use during armed conflict appeared in the form of the Geneva Protocol of 1925, which prohibited the use of chemical and biological weapons in war.

Nevertheless, between World War I and World War II, and during the Cold War, the opposing ideological systems continued to grow and perfect their chemical weapons arsenals. The militaries of the two leading powers now had weaponized new, highly toxic organophosphorous agents. During the same period, the methods for using CW on the battlefield were also further developed.

Common sense prevailed after all. Multilateral negotiations to develop a global ban on chemical weapons started in Geneva at the now-called Conference on Disarmament in 1968. The text of the Chemical Weapons Convention (CWC) was developed by delegations from countries representing NATO and the Warsaw Pact as well as other world nations, including developing nations. This created significant difficulties in reaching a final agreement. The wording of the CWC was completed only in late 1992.

In December 1992, the draft of the Convention was approved by the UN General Assembly. On January 13, the Convention was signed in Paris.

The Convention came into force on April 29, 1997, or 180 days after the 65th instrument of ratification was deposited. Of course, without the commitment to meet the Convention's requirements demonstrated by Russia and the United States, the two nations with the largest CW stockpiles, the Convention would have lost its significance.

Today, 182 nations have ratified the CWC. Five nations have signed it (the Bahamas, the Democratic Republic of the Congo, the Dominican Republic, Israel, and Myanmar) but have not yet ratified it. Just eight nations remain outside of the Convention: Angola, North Korea, Egypt, Iraq, Barbados, Lebanon, Somalia, and Syria.

Under the Convention, all signatories must destroy all CW stockpiles and Chemical Weapons Production Facilities (CWPFs) in their possession, as well as any CW that may have been left by one signatory on the territory of another. The international community has been closely observing the process of chemical disarmament, especially the progress in the United States and Russia. At this time, positive results have been achieved in this

important and complex task. The United States has destroyed 47% of its CW arsenal. Russia is approaching this mark with increasing speed.

In order to fulfill its obligations under the Convention, the Russian government created the Federal Target Program (FTP) for chemical weapons destruction (CWD) in 1996. According to the program, Russia will destroy its entire CW arsenal (about 40,000 tons of chemical agents) by 2012. Progress made this far in CWD, as well as the experience we have accumulated, show that this deadline is realistic.

From 2001 to 2002, Russia completed the destruction of Category 2 CW (munitions filled with phosgene) and Category 3 CW (unfilled munitions, propelling and burster charges specifically designed for use as chemical weapons) in strict compliance with Convention requirements.

In April 2003, Russia completed Stage 1 of its obligations to the international community, namely the destruction of Category 1 agents. The CWD facility in Gorny in the Saratov Oblast destroyed 400 tons of chemical agents or 1% of the total CW arsenal.

From April 2003 to April 2007, the government directed its CWD efforts primarily at completing Stage 2 of its obligations under the Convention, namely 20% of its total CW arsenal.

With this goal in mind, the first Russian CWD facility in Gorny was kept in operation, while the design and construction process was completed for two more facilities in Kambarka, the Udmurt Republic, and in Maradykovsky, the Kirov Oblast.

In late 2005, the first processing line, designed to destroy lewisite-filled munitions, began operations at the Kambarka facility. In December 2005, a comprehensive test of the equipment of the second processing line in real operating conditions was conducted. In March 2006, with the launch of the second processing line, the facility began full-scale CWD operations.

In September 2006, the first processing line of the Maradykovsky CWD facility was put into operation. Since then, the facility has started destroying VX-filled artillery shells.

During this time, in December 2005, the Gorny CWD facility in the Saratov Oblast completed the destruction of the entire arsenal of blister agent. Currently, the facility is processing CWD waste products and reprocessing arsenic-laden reaction masses (or hydrolysate) produced during lewisite destruction.

In April 2007, Russia completed Stage 2 of the Convention by destroying 8,000 tons of chemical agents.

At this time, work is underway to build three more CWD facilities in Leonidovka (the Penza Oblast), Shchuch'ye (the Kurgan Oblast) and Pochep (the Bryansk Oblast). Plans have been completed and construction is underway at a CWD facility in Kizner (the Udmurt Republic).

By 2009, Russia must complete Stage 3 of its obligations under the Convention by destroying 45% of Category 1 CW stockpiles in existence. The planned construction and launch of operations at the new facilities will enable Russia to meet its obligations by the Convention's deadline. Existing statistical data supports this forecast. As at October

1, 2007, the following quantities of chemical agents have been destroyed:

- CWD facility in Gorny, the Saratov Oblast – 1,143 tons;
- CWD facility in Kambarka, the Udmurt Republic – 4,157 tons;
- Maradykovsky facility, the Kirov Oblast – 4,029 tons;
- Total destroyed – 9,321 tons of blister agents and organophosphate agents.

Of 24 declared CWPFFs, seven have been destroyed and 14 have been converted to peaceful industrial use and certified by the OPCW. Two former CW production facilities will also be converted in the near future.

Our government has made it a priority to ensure the safe storage and disposal of CW. This task goes hand in hand with resolving a broad range of issues and taking a number of organizational measures. Here are a few examples.

Military personnel are in charge. This is not a slogan, but a requirement for all CW storage and destruction facilities, where operational tasks are executed on a daily basis. The government has created a system for training specialists to work in different fields of specialization at the CWD facilities. Specialists of all levels are undergoing training, including management and equipment operators.

In order to ensure safe CW storage at all locations:

- Military units and subunits have been created to provide security protection and defense and also for clean-up efforts in the event of emergency situations;
- The condition of chemical munitions is routinely checked and the necessary steps are taken to keep them safely stored;
- Leaking munitions are identified and destroyed in treatment areas set aside for this purpose (from 1997 to October 2007, 449 leaking munitions have been destroyed).

CWD facilities are designed to use time-tested domestic technologies that are safe for industrial applications and with regard to fire safety and environmental safety. The design documentation undergoes a review process with both federal and regional control and oversight bodies, which include health and environmental safety and construction quality reviews. Before any of the mentioned facilities are put into operation, the design documentation is used to determine the sizes of the surrounding health protection zones and emergency planning zones (EPZ).

The CWD facilities are also equipped with custom-made systems to ensure operational safety:

- Automated process management systems;
- An industrial environmental control and monitoring system;
- A fire suppression system;
- Local alert systems in the event of emergency situations;
- A situation assessment and decision-making system in the event of emergency situations and a host of other systems to ensure the safety of the CWD process.

In order to ensure the safety of operations at CWD facilities, and as part of creating a national-level system of environmental protection and safety measures to be taken as part of CW storage and destruction and when converting or destroying CW production facilities, we are:

- Developing and implementing environmental standards for the CWD process and environmental control and monitoring in areas where CW storage and destruction facilities are located, as well as in emergency protection zones;
- Setting limits on pollutant emissions and effluent values and developing regulations for waste production and storage limits for CW storage and destruction facilities;
- Working with other entities to set and approve limits on the use of natural resources for operations at the CW storage and destruction facilities and implementing controls for monitoring use;
- Creating and putting into operation information systems containing current data and projections about the state of the environment in the areas where CWD facilities are located. These information systems are available to federal and regional government authorities and local governments;
- Providing environmental risk and civil liability assessments in case of damage to the environment as a result of CW storage and destruction operations.

The current health protection system for CWD workers and residents of EPZs is aligned with national standards and principles for personnel and population safety in the presence of hazardous industrial operations. The system incorporates components to address the issues of public health, epidemiological protection, and preventive medicine before the CWD process is completed.

CWD workers have access to health protection and other medical services at the on-site facility clinics, while the general population is served by local diagnostic and consultation clinics.

Significant attention is paid to the protection of pediatric health. Just in the first semester of 2007, 742 children living in the health protection zone have been examined and 313 patients visited a specialized in-patient clinic.

A unified registry is maintained for all individuals either involved directly in the CWD process or living and working in the health protection zone. In accordance with the requirements of the Russian federal law on chemical weapons destruction and the Federal Target Program, health protection agencies of federal constituents and specialists from the Russian Federal Medical-Biological Agency conducted a study of the health dynamics of the population living near CW storage facilities.

International assistance has been crucial to the implementation of the Russian CWD program. At this time, Russia has signed over 30 foreign intergovernmental and inter-agency agreements regarding partnership in the CW disarmament process. In the last two years alone, we've signed over 15 agreements and memorandum of understandings that have been acted on.

This joint effort include the Federal Republic of Germany, the United States, Italy,

Great Britain, Norway, the Netherlands, the European Union, Canada, New Zealand, Switzerland, the Czech Republic, Poland, Ireland and France.

CWD cooperation with our foreign partners takes the form of equipment, design of infrastructure components for the construction of CWD facilities, performance of assembly and installation work at the facilities, and specialist training. We are infinitely grateful to our partners.

At the same time, Russia bears most of the financial burden for chemical weapons destruction.

The progress made in CWD under the current FTP is cause for optimism. We have helped the local residents understand the pressing need to destroy the arsenal and that this must be done using plants specially designed for this purpose. The population has been convinced that unprecedented measures are being taken during the construction of the CWD facilities to ensure their safe operation. A CWD process system of controls has been implemented at the levels of the international community, federal authorities, relevant agencies, and civil society. The government no longer finances the CWD program out of budgetary leftovers. We are moving full steam ahead.

Session 1

Questions and Answers

German Frizorger: *In late 2006 and early 2007, your scientific-technical center was working on creating technologies for removing polymer remnants from the surfaces of multi-ton containers. Could you talk about this project and your findings?*

Andrei Shevchenko: The State Research Institute of Organic Chemistry and Technology won the project and is currently working on it.

Paul Walker: *I have a question about the second stage of the CWD process. We all know that the facilities at Gorny, Kambarka, and Maradykovsky have completed the first stage. We want to know what is happening with the second stage and specifically we are interested to know which stage is being currently executed at the Maradykovsky plant. What will the second stage at Maradykovsky consist of, how will the reaction masses be processed, and what will be done with the metal parts of the bombs? Also, what stage is the Shchuch'ye plant at now? How will the second stage be conducted there? Are you planning to use incineration as part of the second stage?*

Victor Kholstov: I would like to explain the following: reaction masses (hydrolysates) at the Maradykovsky plant need to be disposed of using high-temperature processing. The mechanism to do this is in place and we are currently preparing it for operation, and then we will start processing the reaction masses. The reason for mass processing incineration at Maradykovsky is the need to ensure the necessary level of safety when we cut the munitions casing for disposal. Regarding the Shchuch'ye facility in the Kurgan Oblast, in the second semester of 2008, we will be launching the first processing line, which will also include putting into operation the main buildings and structures on the facility grounds and one CWD production complex. Our American colleagues, representing the United States government, decided to restructure the process and we have accelerated the preparations for launching the production complex and other facilities. With regard to reaction masses, this facility is going to be converting them to a bitumen-salt mass.

Stephan Robinson: *Shchuch'ye and Kizner have very similar arsenals and, as far as I understand, the destruction facilities are also very similar. The main difference is that Kizner will start operations a year later than Shchuch'ye. Both facilities will have completed their work by 2012. So how are they different? Why will Kizner work faster than Shchuch'ye? Is it a matter of it having greater operational know-how or are there other explanations?*

Victor Kholstov: The Kizner facility will have greater destruction capacity than the Shchuch'ye facility. This will allow Kizner to complete its operations by 2012.

International Assistance for Russia in Chemical Weapons Destruction under the G8 Global Partnership



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This year we commemorated the 10th anniversary of the ratification of the Chemical Weapons Convention (CWC). Over this time, the CWC has become one of the key tools in disarmament and nonproliferation and an important element in the mechanism used to support international security and stability.

At this stage, one the most important tasks under the Convention is to destroy stockpiles of chemical weapons (CW). Furthermore, it is extremely important that all CWC signatories meet the Convention's chemical weapons destruction (CWD) deadlines.

Another important step is to reinforce the nonproliferation of CW and the materials used to produce them. The priority here is to get new countries involved in the Convention and to ensure that compliance with the Convention's provisions is met in full at a national level.

An important role in Russia's performance of the Convention obligations is played by the G8 Global Partnership (GP) that was adopted by the Group of Eight countries in 2002 at the Summit in Kananaskis. Other countries joined this initiative after it was adopted.

Under the GP, pro bono financing and technical assistance will be (or has been) provided for Russia's completion of its Convention responsibilities by 16 countries: Belgium, UK, Germany, Ireland, Italy, Canada, the Netherlands, New Zealand, Norway, Poland, the US, Finland, France, the Czech Republic, Switzerland and Sweden. Assistance has also been received from the European Union and the US-based NGO Nuclear Threat Initiative (NTI).

In line with the international agreement, Russia bears the brunt of the responsibilities under the Convention. According to the third version of the CWD Program approved by Presidential Decree No. 639 (October 25, 2005), approximately 160.4 billion rubles were to be spent on the Program by 2012 (roughly 6.5 billion USD). Presidential Decree No. 392 (June 21, 2007) later introduced amendments to the Program, and currently Program costs are estimated at 183.8 billion rubles (or approx. 7 billion USD).

In 1996, the Russian budget allocated 1.8 billion dollars for the Program.

In 2002–2006, in line with valid agreements, donors have undertaken to allocate 2.4 billion dollars. As of September 1, 2007, contracts have been signed for only 946 million dollars, and of those funds, only 448 million dollars have been received (11.3 billion rubles).

The main problem is that Russia needs to receive 42.7 billion rubles in foreign aid (1.7 billion dollars, or 1.3 billion euro) by 2007–2009, since 2010 is the year in which we are scheduled to build seven CWD facilities. This financing will help Russia meet its obligations under the Convention, namely to destroy the world's largest arsenal — 40,000 tons of chemical agents — by April 29, 2012. At present, Russia's arsenal is down to roughly 30,000 tons.

The following donors have contributed 14% of total facility costs: Germany, the EU, the Netherlands, Finland and Poland. Germany is the main donor for these costs, having contributed 13% of the total 14%, and the other countries contributed a combined 1%.

Destruction operations have been ceased at the CWD facility in Gorny; instead, this facility is being used to dispose of reaction masses (hydrolysates), which results from the destruction of lewisite.

The CWD facility in Kambarka (the Udmurt Republic) began operations on March 1, 2006. The construction of this facility made a major contribution toward completing the second stage Convention obligations — by April 29, 2007, the Kambarka facility had destroyed 3,650 tons of chemical agents.

The following donors have contributed 20% of total facility costs: Germany, the EU, the Netherlands, Finland and Sweden. Germany is the main donor for these costs, having contributed 17% of the total 20%, and the other countries contributed a combined 3%.

Everything has been put into place to build a CWD facility in Shchuch'ye (the Kurgan Oblast) by the fourth quarter of 2008.

The construction of CWD facilities is progressing. In Gorny (the Saratov Oblast), the facility operated successfully from December 2002 through December 2005. As a result, Russia was able to complete the first stage of Convention obligations, i.e., destroy 400 tons of chemical agents by April 29, 2003.

It is expected that the following donors will contribute 48% of total facility costs: the US, Belgium, UK, Italy, Ireland, Canada, the Netherlands, New Zealand, Norway, France, the Czech Republic, Sweden, and Switzerland (12 countries total), in addition to the European Union and the NTI. The United States, which has been providing aid since 1992, is the primary donor and plans to allocate 1 billion dollars, accounting for 42% of the stated 48%. The other donors are expected to contribute a cumulative 6%.

During construction of the Shchuch'ye facility, donors are using a legal instrument referred to as the trilateral collaboration agreement. The idea is that countries that do not have any aid agreements with Russia will allocate funds through the Russian-British Intergovernmental Agreement of 2001. Countries such as Belgium, Ireland, the Netherlands, New Zealand, Norway, the Czech Republic, Sweden, and the EU have used this method of funding.

As a rule, this structure is used if a country annually allocates a smaller amount of funds. The exception to that rule is Canada, which entered into an intergovernmental agreement with Russia in 2004 and sends financing through UK. The reason is that the services of general contracting firms are too costly, and it is more cost-efficient to use one general contractor together with UK.

The Maradykovsky CWD facility, located in Mirny (the Kirov Oblast) has been operating since August 2006. Its construction was financed by federal budget funds.

Switzerland is another donor; this country has contributed 2.62 million dollars, or 0.6% of total facility costs.

The CWD facility in Pochev (the Bryansk Oblast) must be completed in 2008. Germany has undertaken to allocate 140 million euros in 2007–2008, and Switzerland is providing 1.15 million US dollars.

The CWD facility in Leonidovka (the Penza Oblast) is scheduled for completion in 2008. On October 31 - November 1 this year, Russia was to enter into a contract with Switzerland on the latter's contribution of 66 million rubles (2.62 million USD) aimed at the installation of an external power supply system; these funds are expected to arrive in 2007–2008.

The CWD facility in Kizner (the Udmurt Republic) must be completed in 2009. In February 2006, England and Canada stated their intent to assist in the construction of this facility (Canada plans to allocate 100 million Canadian dollars, and England has offered 10 million British pounds). At present, a legal base for implementing this project is being prepared.

Progress is being made on CWD projects, but not without difficulties. There are, for example, problems with the trilateral collaboration agreement, namely the slow-moving expenditures of third countries. Since 2002, the countries involved have issued 93.3 million US dollars (45.12 million British pounds) to UK under the trilateral agreement. Of that sum, just 20.21 million US dollars have been spent on projects in Russia.

Another factor is the high cost of the services provided by Bechtel, the general contracting firm. The 110,000 US dollars that Belgium sent to UK for CWD purposes were used by the British party exclusively to pay for Bechtel's services.

The extended periods of time required to negotiate executive agreements have also slowed down the process of furnishing facilities with equipment. In 2004, New Zealand extended 1.2 million New Zealand dollars to UK for the creation of the Puktysh power substation (at the Shchuch'ye facility). UK did not enter into this agreement until February 2006.

The British party to this agreement rarely informs the Federal Agency on Industry when funds arrive from a third party, when said funds are spent or what project the funds are used to finance.

There is another serious problem: the slow-moving expenditure of UK's funds. According to the Russian-British Intergovernmental Agreement of 2001, UK undertook to provide 82 million British pounds for CWD purposes (162.12 million US dollars). As of September 1, 2007, Russia has received 8.27 million US dollars.

This creates an atmosphere of uncertainty and seriously disrupts the planning of large-scale and costly work. We are counting on Italy's new budget (which is expected to be approved in late 2007) to allocate 360 million euro that Italy promised to allocate for the Pochev facility under the bilateral intergovernmental agreement of November 5, 2003. Russia hopes that the Italian Parliament will be able to fast-track the ratification of this Agreement. As far as the Russian side is concerned, the Russo-Italian Agreement is in

the final stages of approval by the Russian Government, after which it will be submitted to the State Duma. We hope that the Italian side will agree to finance the project to build roads for the Shchuch'ye facility. This project is directly related to CWD, as the roads will be built on facility premises.

The European Union has promised to start new projects under the GP after the budget is approved for 2007–2013. Despite the fact that this obligation was set out in the Sea Island documents in 2004, the EU's budget does not include any such item. The EU is working under the old program — the joint action plan. The Tacis program was completed in late December 2006, and the aid provided under this program was, for the most part, ineffective. The Federal Agency on Industry's information shows that, since 1993, Russia has received just 19.1 million euro. It is expected that roughly just 2 million British pounds will be allocated to the Shchuch'ye facility through UK.

However, we also need to acknowledge the positive moments.

Funds from the US were previously disbursed via the US general contracting firm Parsons. In 2006, the US admitted that this company's services were too costly. As a result, in May 2007 an amendment was introduced to the Agreement between Russia's Federal Agency on Industry and the US Defense Department to adjust program management. Now, all contracts for the construction of the Shchuch'ye facility are signed by Russia's Federal Agency on Industry, and the US Department of Defense finances them.

The first contracts with Germany have been signed for funds for the Pochep facility.

Today, an executive agreement between the Federal Agency for Industry and Switzerland should be signed on Switzerland's contribution of 2.62 million US dollars for the construction of the CWD facility in Leonidovka. Switzerland is so far the only foreign donor contributing to this particular facility. In a sense, the arrangement with Switzerland may serve as a model for Russia's other foreign partners. There is an intergovernmental agreement from 2004 under which executive agreements are to be signed for each facility. These agreements set out the funds needed, the project details, the procedures for auditing and the reporting structure. Switzerland sends the funds directly to the Federal Agency on Industry, and the Federal Agency on Industry procures the services of a Russian subcontractor and pays for the work. The Swiss then hire an independent firm to ensure that the funds are being spent for their intended purpose (much more cost-efficient than paying for the services of UK's general contractor, Bechtel). This structure is completely transparent at every stage of implementation. Furthermore, the funds are 100% efficiently spent.

On July 4, 2007, an executive agreement was sealed with France on the shipment of environmental monitoring system in Shchuch'ye (valued at 6 million euro). The Federal Agency on Industry signed the contract on October 24. We are counting on France to sign this contract in the near future.

For its own part, Russia's Ministry of Foreign Affairs has pooled its efforts with stakeholder government agencies to do everything possible to fully take advantage of the GP in terms of the timely completion of Convention obligations.

International Science and Technology Center – Fifteen Years of Experiences on Trust Building Partnership with Russia. ISTC Involvement in the Chemical Weapon Legacy



***Prof. Wacław Gudowski, Deputy Executive Director
Albert Gozal, Senior Program Manager
International Science and Technology Center (ISTC)***

The International Science and Technology Center (ISTC) is an intergovernmental organization founded in 1992 by Russia, the EU, the USA and Japan located in Moscow for non-proliferation purposes, to which Korea, Norway, Canada and most of former Soviet republics joined afterwards.

Headquarters are located in Moscow with Branch Offices in Armenia, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, and an Information Office in Tajikistan.

The ISTC brings together 37 countries, and the European Commission has invested an average of 20 million euros per year in the Centre. At the heart of the Centre's activities is the idea of giving scientists formerly engaged on weapons projects an opportunity to reshape their work in civilian industries. This ties in with one of the objectives of the Chemical Weapons Convention, which talks about the need to prevent the re-emergence of chemical weapons.

The mission of the ISTC is to support non-proliferation of technologies linked to weapons of mass destruction (WMD) by:

- Redirecting former weapons scientists of Russia and the Commonwealth of Independent States (CIS) toward peaceful science activities
- Promoting sustainability
- Helping to integrate former weapons scientists into the global scientific community
- Contributing to solving national/international science & technology problems.

The ISTC core programs and services

A variety of core programs and services are available through the ISTC, these are detailed hereafter

- Regular Project Program

The Science Project Program is the most comprehensive nonproliferation activity conducted by the ISTC. Through this program, the ISTC solicits scientific project proposals from institutes throughout the CIS and provides funding and logistic support to project teams.

Project teams receive written concurrence from the host country on whose territory their research will be conducted, and then develop and execute their project with foreign collaborating organizations. Foreign collaborators ensure the project goals contribute to the state-of-the-art in the field, and that results will find applications in real problems in basic and applied research

- Partner Project Program

Through the Partner Program, private companies, government agencies, and non-government organizations work with experienced Russian & CIS scientists on innovative technology developments. Whether it is early-stage R&D or getting a product ready for market, we help Partners meet their market needs. Since 1997, Partners have funded over \$240 million for research projects. Partners have access to world class research performed by former weapons scientists in Russia and the CIS at a minimal cost, thus extending scarce R&D funding. ISTC Parties allow Partners and the institutes/scientists with whom they wish to engage on a project to directly negotiate reasonable Intellectual Property Rights (IPR) allocation terms. Partners also benefit from proven project management, access and taxation privileges of the ISTC.

More specifically, the Partner Program offers the following benefits:

There are a lot of advantages of becoming an ISTC Partner, for instance but not limited to: no cost technology R&D search and matchmaking, moderate project R&D costs, complete control of funds assured through ISTC, direct tax-free grant payments to recipients via ISTC, customs and duty-free imports of equipment via ISTC, on-site monitoring and audits by professional ISTC project management, on-site supported visits to institutes and closed cities, access to ISTC networks across Russia and the CIS, intellectual Property Rights support, ISTC support programs (competency building, travel grants, seminars and workshops), bi-lingual staff (English and Russian).

- Workshops and Scientific Seminars

The “Science Workshop and Seminar Program” assists ISTC beneficiary institutions and their former WMD experts, being eligible for applications to the ISTC, in promoting their integration into the global S&T community, facilitating the establishment of new contacts and long-term scientific cooperation and partnership opportunities with their colleagues from ISTC funding parties and with other experts from the CIS. This program directly supports ISTC funding Party efforts, namely the key objectives of non-proliferation and redirection of former WMD-experts.

- Technologies Database Program (TDB)

The objective of the Program is to establish information exchange infrastructure concerning research activities and their application potential in Russia and the CIS countries and thus promote cooperation between Russia/CIS and foreign countries.

- Commercialization Support Program

ISTC Commercialization Support Group is designed to act as the interface between the business world and Russian and CIS innovation. It is able to offer the international business community a unique service due to ISTC’s international Agreement which aims to redirect the work of scientists previously engaged in weapons development toward peaceful scientific and sustainable commercial activity.

The training program is a key component in the redirection of FWS experts, which is a core objective of the ISTC mission. Since 2004, the training program has been developed and adapted to better suit modern learning methods. The principal goal of the Competency Building Program is to provide business training to scientists that equip them to succeed in a business environment.

- Patenting Program

The main objective of the Program is to provide assistance and support in appropriate protection of intellectual property created under regular projects for its effective exploitation.

- Travel Grants

ISTC supports the costs of scientists traveling to meet with potential business partners, and bilingual staff assists with introduction and arrangement of business meetings in Russia and the CIS. Services range from visa support and access to science institutes as appropriate, through to all meeting arrangements, in-country support and translation needs;

- Communication Support Program

The purpose of the program is to provide support to eligible CIS institutes and organizations for the purchase or lease of equipment, material, software and connectivity where existing capabilities inhibit the accomplishment of ISTC (Center) projects and the development of commercial opportunities.

- Technology Promotion Program

The objective of the program is to support process of channeling technologies developing under regular project from proposal to application by providing their technology assessment and by assisting recipient institutes in identification and justification of technologies potential for implementation.

This program should serve as initial and intermediate phase of the Secretariat technological pipeline bringing assessed and selected technologies for consideration of Commercialization Support Program and by Partner Program.

ISTC Accomplishments of 13 Years of Operation

In the field of Non-Proliferation, ISTC has engaged almost 70,000 scientists in RF and other CIS countries, 922 institutes have benefited of ISTC programs, 2552 projects have been funded, both through Regular and Partner Projects for a total amount of USD 767M\$

In the field of International Cooperation, 37 Nations are engaged in cooperative technology development, and growing efforts of working toward non-proliferation and greater world security.

ISTC is an Intergovernmental organization with status of diplomatic mission thus providing reliability and services at the highest level.

ISTC is certainly one of the international organizations the most audited, guaranteeing a completely transparent mechanism.

Summary of ISTC Achievements:

- Intellectual nonproliferation objective have been fully achieved.
- Decisive support for regaining Russian capability to ensure security and physical protection in area of WMD, in particular in the 90's
- Drastic reduction of nonproliferation threats compared to 1990's
- Built up of a civil oriented community inside the WMD structure with a high intellectual potential. Integration with international civil Science & Research community
- Creation of basic foundation of civil and democratic society consciousness in closed community of WMD.
- A gradual integration of WMD scientists with a community of civil science:
 - ISTC has very efficiently integrated Russian and CIS WMD community into world scientific community of civil research, extensively funding mobility and international workshop and seminar programs being at the same time very cautious not to proliferate undesired know-how
 - Equally important achievement of ISTC is creation of links and collaborative projects between weapon laboratories and civil Russian/CIS institutes. Without ISTC funding there would be neither stimulation nor driving forces for this internal openness and more transparency between those two different scientific communities in Russia. A very important contribution to a sustainable redirection
- ISTC has considerably contributed to minimization of consequences of impoverishment of Russian intellectual class employed in the WMD sector. It played doubtlessly a very important role in moderating social tensions during the difficult transformation period and contributed to relatively peaceful transformation processes in 90's.

The ISTC Participation in the Field of Chemical Weapon Destruction

We have not worked technically in the field of the chemical weapon destruction but we funded a significant number of projects at institutes directly dealing with CWD, i.e. toxicology (RIHTOP and RIHOPH) and chemical institutes (GosNioKht and Gitos).

1 – RIHTOP (Scientific Research Institute of Hygiene, Toxicology and Occupational Pathology, Volgograd, Russia)

#2345: Developing a Computer Software Program: Differential Diagnosing of Acute Poisoning Cases with Organic Phosphate Substances.

Main goal is to develop a new software product for detection of various groups of organic phosphorous compounds that cause acute poisoning exposure.

Results: the software product, which will enable medical doctors to resolve in a timely manner detection tasks for acute exposure to organic phosphorous chemicals. That will improve the efficiency of expert investigation for cases with unclear etiology when there is reason to suspect poisoning with organic

phosphorous substances; and such detection will accordingly improve medical treatment.

2733: Development of Acute Exposure Guideline Levels for Hazardous Substances.

The project has provided funding for the RIHTOP to participate in the development of Acute Exposure Guideline Levels (AEGl), which are chemical emergency hazard values that are developed by the US EPA's NAC.

RIHTOP has prepared Technical Support Documents in support of the development of AEGls for hazardous chemicals and provided expertise to improve the toxicology methodologies used in the development of AEGl values.

#3316: Surface Decontamination after Chemical Terrorism: Safety Standards Development

Main goal is to develop the methodology for substantiating of regulations on safe content of chemical substances on surfaces of different decontaminated construction materials.

Expected results: Development of the methodology for substantiation of maximum permissible levels of chemical toxicants content on surfaces of different construction materials after their decontamination. Establishing of these standards will allow regulating safe residual amount of chemical agents, which are potentially applicable in terrorist attacks after their deactivation. This will contribute to creating models of quantitative assessment of danger and/or risk for population during a terrorist attack and their reduction.

#3320: Development of Analytical Methodology for Quantitative Determination of organophosphorus Chemical Agents in Air

Main goal is to develop analytical methodology for quantitative determining of OP chemical agents in atmospheric air.

Importance: At the national level of Russian Federation, clear and consistent objectives based on the principle points of the Convention on Chemical Weapons Prohibition are incorporated into the program on the installation of chemical weapons destruction facilities. High toxicity of chemical warfare agents under destruction continues to be a real threat to human and environmental safety.

#3642: Studying of Soman, Sarin, and Sulfur Mustard Stability in Drinking Water in the Presences of Oxidants and without Them

Main goal is to study stability of sarin, soman and sulfur mustard in water both in the presence of water disinfectants and without them.

Expected results: evaluation of the compounds stability in drinking water, identification of the reaction products and assessment of their toxicity. The obtained data will allow making of scientifically-grounded decisions on ways of drinking water treating and possibility to use water after contamination with studied chemical agents.

Workshops

RIHTOP acts as the institute-organizer in the international WSs that are held on the regular basis and supported by the ISTC:

- 2002

WS “Decision-Making Tools in Response to Terrorist Use of Hazardous Substances – Minimizing Health Effects on Exposed Populations”

- 2003

WS “Medical and Biological Aspects of Chemical Weapons Stockpile Demilitarization”

- 2005 and 2006

WS on issues of chemical and biological decontamination

- 2007

WS “Response to Chemical Emergencies Including Terrorist Attacks and Industrial Incidents”

2 – RIHOPH (Research Institute of Hygiene, Occupational Pathology and Human Ecology, Vsevolozhsk, Leningrad reg., Russia)

#2629: Sodium Fluoroacetate and Other Metabolic Poisons: Study of Mechanisms of Their Toxic Action and Development of Effective Therapy

Main goal is to investigate molecular, cellular and physiological mechanisms of sodium fluoroacetate (FA) action in a combined manner to search for effective prophylaxis and therapy against acute intoxications with FA and some other metabolic poisons.

Importance: Fluoroorganic compounds and especially fluoroacetates are among the number of highly toxic compounds for which therapeutic agents available are not sufficiently effective. These are so called metabolic poisons that also include ethylene glycol, cyanides, etc. Some of them are used in agriculture (FA), others may be used as surrogates of alcohol (ethylene glycol). Besides, a great problem of chemical safety connected not only with ecological pollution but with a great opportunity of using these compounds by terrorists has arisen recently.

#3697: Risk Assessment of Human Health in the Vicinity of Plants with a High Level of Chemical Risk by the Example of the Maradykovsky Chemical Weapon Destruction Facility

Main goal is improvement of methodology and development of new methodical approaches to risk assessment of toxic chemicals for human health, which can get into the environment as a result of activity of chemical weapon destruction facilities (CWDF) by the example of the CWDF “Maradykovsky”.

Importance: One of the prior courses of the program on chemical weapon destruction fulfilled according to the Convention is providing safety of the population living in the areas of possible effects of CWDF – the buffer zones (BZ). Still, the area population is concerned about possible impact of the

activities related to CW destruction upon environment and human health. Assessment of the possible and actual risk related to CW destruction will allow forecasting the impact on environment and population, as well as implementing the related demands on environment and human health protection, with regard to the CWDF activity. This will also help to develop an opinion about level of the risk (or safety) of these facilities, to inform the federal and local bodies as well as population about the environmental quality of the BZ, to conduct the proactive and preventive measures.

#3372(under consideration): Identification of Organic Compounds Responsible for the Residual Toxicity of the Mixture of RVX Hydrolysis Products

Main goal is developing methodical approaches to toxicity assessment of complex mixtures of unknown composition, revealing toxicants, and gaining insight into the biochemical mechanisms of their toxic action as applied to the problem of chemical weapons destruction.

3– GOSNIIOKhT (State Research Institute of Organic Chemistry and Technology, Moscow, Russia) 32 projects funded

##0106, 0106.2 (completed) Development of environmentally safe means for utilization of chemical weapon agents, their synthesis and detoxification products in manufacturing ion-exchangers for hydrometallurgy, as well as for cleaning waste waters and gases.

Main goal is to develop a methodology for the elimination of chemical weapons and obtain from the chemical agents useful, marketable products (extractants, adsorbents, and other hydrometallurgical materials).

1335 (completed) The Elaboration of Physical and Chemical Bases of Technology of Safe Destruction of Chemical Weapon with the Use the Blast Process

Main goal is to develop the new effective industrial technique of destruction PS on already begging available industrial squares.

##1022, 1022.2 Ecological, Toxicological and Hygienic Safety Aspects of Solid Wastes Produced during Destruction of Organophosphorous Warfare Agents

Main goal is to study ecological and toxicological safety of bitumen-salt masses (solid wastes after the two–stage destruction technology of organophosphorous warfare agents (OPA) – GB, GD, and VX) allowing to monitor the environment around the landfill and to conduct the risk assessment for the population living near the landfill.

Importance: evaluation of wastes produced during destruction of nerve agents to minimize impact effect on the environment and human health. Implementation of such researches will allow to decrease psychological burden on population in regions where chemical weapon destruction facilities to be placed.

#2477 Catalytic Detoxification of Gas Effluent from Destruction of Super Toxic Materials

Main goal is to develop a method for selecting potential catalytic sorbents; find sorbents that are able to decompose chemical agents on their surface; model the sorption and decomposition processes; develop green technology for pollution prevention.

#2734 The Production of Highly Active Human Blood Plasma Butyrylcholinesterase Preparation by Gene Engineering Methods to Create Protective Means against Poisoning by Organophosphorous Cholinesterase Inhibitors

Main goal is to produce highly active human blood plasma butyrylcholinesterase (BuChE) preparation by gene engineering methods to provide for a reliable protection from several lethal doses of soman, sarin, and Vx in the absence of symptoms of toxic OP effects.

Importance: At the present time, the antidote therapy in poisonings by organophosphorous (OP) cholinesterase inhibitors remains a very burning problem in view of the wide application of these substances in household, industry, agriculture and the existing potential threat of using OP inhibitors as chemical weapons for military and terroristic attacks and other incidents. This problem is of particular importance in large-scale destruction of stockpiled chemical weapons.

4– GITOS (State Institute of Technology of Organic Synthesis, Shikhany, Saratov reg., Russia) 6 projects were funded

Conclusions

- While much has been achieved in putting in place the infrastructure needed for the destruction of these weapons, much remains to be done; the deadline of 2012 may have to be reconsidered. The EU and Russia, in an agreement reached in 2005, stated that they would step up their work on combating together the threat posed by Weapons of Mass Destruction more generally and by chemical weapons in particular. This agreement is the road map on the common EU-Russia space on external security, which President Putin and EU leaders agreed to during their Summit meeting of May, 2005.
- It is in this spirit of trust and co-operation that together we can work on solutions to some of the very difficult problems that we have inherited from the past.

Overview of the U.S. Chemical Weapons Destruction Program



Dale Ormond
Acting Director
U.S. Chemical Materials Agency

I am glad to be attending this year's Green Cross/Global Green National Dialogue on Chemical Weapons Destruction, especially in Moscow.

The U.S. Army's Chemical Materials Agency (CMA) is dedicated to its mission to store, treat, and dispose of chemical weapons safely and effectively. The agency develops and uses technologies to safely store and eliminate chemical weapons while protecting the public, its workers and the environment. We focus on meeting the requirements of the Chemical Weapons Convention (CWC) and above all, safety is our highest priority.

Although CMA is the executive agency responsible for executing the chemical weapons disposal mission, numerous international, federal, state and local organizations have a significant role in overseeing the disposal activities.

This wide range of program stakeholders requires an active public outreach effort. There are nine stockpile sites in the United States, which are administered either by CMA or the Assembled Chemical Weapons Alternatives (ACWA) Program. Five of the sites listed use incineration as the destruction technology. Four of the sites are using neutralization as the primary destruction technology. Please notice that two of our sites, located on Johnston Atoll, and Aberdeen, Maryland, have completely destroyed their stockpiles. Once the destruction missions were completed, we destroyed the facilities.

Here is a brief snapshot of our progress. As of 23 September 2007, the United States has destroyed 47.9% of its original stockpile since the Convention's Entry into Force (EIF) in 1997. Of the declared 27,768 metric tons (MT) of chemical weapons (CW), 14,666 MT remain to be destroyed.

Safe operations are the cornerstone of the U.S. chemical demilitarization program. We have learned that safety also ensures steady state operations. Our ability to destroy the agent and meet schedules is tied to safety. Safety encompasses a well trained workforce, good housekeeping, well maintained equipment, and the ability of every employee at any level to question activities and procedures.

The Program's overall Recordable Injury Rate (RIR) compares to that of luggage & leather goods stores and offices of real estate agents and brokers, according to the Bureau of Labor Statistics. The current number of man-hours worked without lost time totals over 24.6 million hours or approximately 4.9 million hours average per site.

The US Congress has directed the Department of Defense to dispose of the entire stockpile of chemical weapons and to do so by providing maximum protection to the surrounding communities and environment. Our Chemical Demilitarization Program adheres not only to the CWC, but to federal and state laws. In this way, we ensure our

progress does not harm the environment and protects the community.

CMA has recently celebrated the achievement of meeting the CWC 45% stockpile destruction milestone. This achievement is the direct result of demilitarization operations by the U.S. Army Chemical Materials Agency at five operational facilities, previously completed operations at two closed facilities, as well as Non-Stockpile operations. Additionally, the 100% destruction of CWC Schedule 1 chemical weapons production facilities (CWPFs) was achieved ahead of schedule in December 2006.

The Organization for the Prohibition of Chemical Weapons (OPCW) approved the United States' request for extension for 100% destruction of CW from April 2007 to April 2012. The United States continues to strive to meet the 100% destruction deadline and we continue to incentivize the systems contractors to safely and efficiently dispose of the stockpiles at each of the five sites that are actively conducting disposal operations.

CMA has an active role in communicating CW demilitarization progress and issues to its stakeholders. This is especially important in maintaining good relationships with communities located near a facility. For example, senior Army leaders meet regularly with national, state and local leaders. Local site project managers and installation commanders meet monthly with community leaders and the public to provide updates on current progress and future plans.

Our Newport, Indiana facility only stores VX filled ton containers. As a result of local citizen concerns and the stockpile configuration, this facility utilizes neutralization as the disposal method. In April 2007, Newport successfully began shipment of hydrolysate waste to an off-site treatment facility for ultimate, final disposal. Whereas two previous attempts to ship the wastewater to similar facilities had failed over the last four years, this achievement was the result of substantial dialogue with Congressional, state, and local leaders and involvement of environmental regulatory agencies.

As of 30 September 2007, this accomplishment has led to 193 intermodal containers being shipped to and destroyed by the Veolia facility in Texas, without incident. This has translated to a savings to the American taxpayer and equates to 587 US tons of hydrolysate destroyed.

CMA works continually to identify and overcome potential obstacles in achieving complete CW destruction. Experience has provided extensive lessons learned. These are shared program-wide, ultimately enhancing CMA's ability to timely and safely conduct its mission. The United States Chemical Demilitarization Program continues to strive toward meeting all treaty obligations while ensuring the safety of the public, its workers, and the environment.

Progress in 2007



*James Harrison
Deputy Director, Counter-Proliferation and Arms Control
Ministry of Defense, 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.

Looking back at the presentation that I gave here last year, I note that my concluding comment was:

“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.”

I am glad to say that this forecast has generally been accurate. Over the past year, Russia has continued to make impressive progress in its destruction program, as we have heard already this morning. I congratulate Viktor Kholstov and all involved on this achievement. “Success breeds success.” I am sure that this progress will have a positive impact on this Conference.

Today, I shall confine my remarks to the program of assistance managed by the UK at Shchuch’ye, and our plans for future assistance at Kizner.

Before reporting on progress, I will make a few general points.

I would like to highlight positive aspects of our **cooperation with the Russian Federal Agency for Industry (FAI)**. Although there have been difficulties, there has also been significant success. We receive excellent support from the FAI in relation to visas and access to sites. FAI have provided detailed project documentation. And cooperation on the ground has been practical and constructive.

The UK’s contribution at Shchuch’ye is modest in scale, but we believe that the UK has a particularly useful role in enabling other donors to make funding contributions with confidence that we will effectively manage their funds. This means not only delivering completed projects which meet cost, schedule and quality, but also providing accountability, transparency and auditability. I highlight in particular our very close partnership with Canada in many of the projects at Shchuch’ye. The UK also welcomes the opportunity to work with a large range of other donors under the Global Partnership.

A key issue is the use of **donor funds**. The UK provides periodic updates to the Russian MFA and FAI on the use of donor funds, and includes information in the UK's Annual Report on the Global Partnership, published in English and Russian. To date the UK has received some £57M of other donors' funds; we have committed to contract over £44M and have actually spent over £27M; the rest will be paid out over the next few months. More than £20M of this has been spent with –mostly Russian - subcontractors, and this will increase as a proportion of the whole.

In addition, we have spent over £13M of UK funds, and committed a further £3.2M to contract.

We hope to commit around a further £11M of UK and other donors' funds to contract shortly.

All these figures **exclude** MOD's own management costs.

I would now like to summarize the current state of progress on **specific projects**. In a number of cases there have been substantial delays, primarily in completing project planning, prior to starting implementation. Over the past 6 months, we have resolved a number of the outstanding issues. We aim to resolve the remaining ones in the very near future, in cooperation with the FAI.

I will start with **infrastructure projects**. I will leave aside our earlier completed projects; water supply (2003); procurement of electricity equipment (funded by UK, Czech Republic, EU, Norway, 2004); refurbishment of Puktysh electricity substation (mainly funded by New Zealand, 2006).

The largest single infrastructure project is the **railway**, which will transport CW munitions from the storage site to the destruction facility. This is funded by Canada. The implementation contract was placed in February 2006. Delays to construction have resulted from the time taken for issue of the necessary permits for felling trees. The final permit was made available in July 2007. Construction is now well under way, and the project is currently scheduled to be complete in December 2007, but there is some risk to this schedule.

The **Local Public Address System**, funded by Canada, has suffered repeated delays. This project will provide information to the public in the area of the destruction facility, in the event of an emergency. The UK was ready to place the contract in April 2006. However, the FAI sought changes to our contractor's standard terms and conditions for the subcontract. In August 2006, the UK placed the contract. We were then informed that Russian national standards had changed, which required redesign of the project. FAI confirmed the amended design in May. We were ready to reinstate the contract, but we were unable to proceed because the updated subcontract included an element of some £100K for VAT. This is contrary to the UK-Russia Agreement, which provides exemption from such taxes. The subcontractor has now withdrawn from the project. We are seeking FAI assistance in finding a way ahead.

The **Inter-Site Communications** project is also funded by Canada. It provides fiber-optic communication links between the storage and destruction facilities. The implementation contract was placed in October 2006. The project was completed on schedule earlier this month.

The **Electricity** project comprises two elements: procurement of electricity

supply equipment; and associated installation and construction work. We placed the **procurement** contract in December 2006, with funding from the UK, Belgium, Czech Republic, the EU, Netherlands, Norway and Sweden. Deliveries of all equipment to site have been completed on schedule, during the last week.

It has proved particularly difficult to negotiate fair and reasonable prices for the **installation and construction** work. A number of donors plan to contribute to this project, including Finland as well as those mentioned just now. This task has been complicated by new objections from the Russian side to standard terms and conditions for the subcontract. We hope to place the contract very shortly.

I turn now to procurement of **equipment for the second destruction building**.

Manufacture of the **Metal Parts Furnace** was completed in April 2006, funded by UK, Netherlands and Ireland. Because of delays in issuing Russian Customs certificates, the UK decided not to ship it to Russia in 2006, as planned, to avoid the risk of damage if the equipment was not stored in heated conditions over winter. We subsequently became aware of changes in Russian import legislation, which required additional certification by the Russian Ministry of Defense. As a result, shipment was further delayed. With the cooperation of FAI, the necessary certificates were obtained, and the Metal Parts Furnace was delivered to site in September.

Delivery of **Catalytic Reactors** – or filters – was completed in February this year, funded by Canada, on cost and contract schedule. We have recently placed the contract for the sorbent fill for this equipment, funded by France.

The Destruction Process Lines are the key equipment for handling the chemical munitions, funded by Canada. This project has experienced significant delays. Much of this was due to changes which FAI sought to the relevant subcontracts. The procurement contract was placed in April 2007. Further delays ensued, while bank guarantees were put in place. Manufacture is now fully under way, with an expected delivery date in April/May 2008.

There are five further packages of equipment planned to be procured for the destruction process, to be funded by Canada and France respectively. In brief manufacture of one item on The Netherlands was completed in April on schedule. As with the MPF, importation has been delayed by approval for tax exemption and the new Russian import requirements. It is not now expected to be delivered until at least November. The remaining packages are in the planning stage, and we aim to proceed to implementation in the near future.

Schuch'ye – Summary

To conclude, there has been substantial progress over the past year, but there have been also substantial delays to projects at Shchuch'ye, for a variety of reasons. These have mainly involved factors outside the UK's control, including Russian bureaucratic requirements, design changes, FAI objections to terms and conditions of subcontracts, and difficulty in negotiations with subcontractors. We have not been prepared to proceed with projects, until we have been satisfied with value for money for UK and other donors' taxpayers. The problems I have outlined have now largely been resolved, often with the cooperation of the FAI.

So, the majority of the projects are in full implementation or are completed. We

expect to place the rest on contract in the near future. We continue to give priority to meeting donors' requirements for implementing projects effectively and providing value for money and accountability. This also ensures that we meet FAI's requirements. The UK is committed to completing our planned projects at Shchuch'ye, and we expect to do so over the coming months.

Kizner

In July 2006 the UK announced its intention of providing further assistance with chemical weapons destruction at Kizner. We plan to make available a minimum of £10M for implementing projects at Kizner – in addition to the costs of program management. We intend to procure electricity supply equipment only, building on our experience at Shchuch'ye. We have been working closely with FAI and Canada on developing the necessary arrangements for implementing projects. We have made substantial progress in drafting the necessary documents. But a number of important issues still need to be resolved before we can start the process of selecting a Principal Contractor. The timescale for resolving these issues is now pressing. Subject to concluding these negotiations satisfactorily, we would be willing to work with any other donors who might wish to contribute to projects at Kizner through the UK program.

Conclusion

In conclusion, over the past year Russia and donors have made substantial progress in the construction and operation of a number of CWD facilities. There have been difficulties along the way, but the momentum is increasing. A great deal remains to be done. By this time next year, I hope that the UK program at Shchuch'ye will have been completed, the facility will be moving towards operation, and we will have started implementing projects at Kizner.

Update on German-Russian Cooperation in CW Destruction



*Stephan Aus Dem Siepen
Counselor, Political Department
Embassy of Germany in Russia*

Thanks for the opportunity to present to you the progress achieves in German-Russian cooperation in the destruction of CW since we last met in this forum in October 2006.

1) Kambarka

Last year I reported about the official inauguration ceremony which took place in March 2006. Destruction efforts have started shortly afterwards. In March 2007, the German-financed building, containing the equipment for the thermal destruction of liquid and solid residues delivered by German companies, was finally and officially handed over to the FAI and the Russian operating company ROKBA.

At the time of this official handing-over, Kambarka had already destroyed roughly one third of the 6.500 t of CW stored at that facility. Today, according to Russian official sources, more than 6,500 tons (more than 2 thirds of the stock) have been destroyed.

With the official handing-over the second German-Russian project in the field of CW destruction has come to its successful end. The project, which had been officially agreed in April 2003 and ran over 4 years, had experienced some troubles, administrative delays and technical complications, which it was possible to resolve in a spirit of compromise.

I would like to recall that the amount of German assistance directed to Kambarka for the construction of the facility totals almost 150 million euros.

In addition to Germany's bilateral cooperation, Germany was, in the framework of the EU's Joint Action in support of nonproliferation and disarmament in the Russian Federation, entrusted with the implementation of a EU Project worth 4 million euros, which provided equipment requirement to ensure the operation of the facility in Kambarka.

This project was finished also in March 2007. The project consisted in the delivery of an air compressor station, an air and water cooling station, a nitrogen supply station, a diesel power station and rescue vehicles for Kambarka.

2) Pochep

A year ago I reported about Germany's intention to continue supporting Russian CE destruction activities in a third large object (following Gorny ad Kambarka). End of 2006 the Russian partners approached us with concrete plans for cooperation in a new project in Potschep, Brjanskaja oblast, the largest of all CW storage facilities in Russia with approximately 7.500 t of nerve agents, stored in approximately 67.000 munition units.

Meanwhile, this cooperation has entered into a concrete stage. An intergovernmental agreement has been concluded, work has started and is progressing well. Due to some changes in the technical specifications, which caused a redesign of the layout for the building and the equipment to be delivered, the facility will become operational in summer 2009.

In Pochep, Germany similar to what we have done in Kambarka and Gorny, is financing a complete building (building 11), which will contain the thermal destruction equipment for solid and liquid residues including the reaction masses from the destruction, the incinerator, equipment for the thermal treatment and final destruction of the decommissioned munition, water treatment and air purification. The amount unforeseen is up to 140 million euros.

Let me underline, that German-Russian cooperation in this project so far is progressing well in a constructive spirit.

3) Leonidovka

At the request of the FAI, Germany has agreed to redirect some equipment for the detection of residuals of nerve agents in the destruction process originally foreseen to be used at the Kambarka facility to the Leonidovka facility. Thereby, Germany now is supporting Russian destruction efforts at 4 of the 7 CWDF's in the RF.

We are looking forward to continuing our fruitful cooperation in the years ahead with a view to contribute to the irreversible and final destruction of Russian CW.

**Canada's Global Partnership Program
Chemical Weapons Destruction:
Achieving Our Goals – Making Progress**



*Colleen Pigeon
Second Secretary, Global Partnership Program
Embassy of Canada in Russia*

Good Morning,

I am pleased that Canada has once again been invited to participate in this important event.

My presentation today will have two parts.

First, I will provide an update on Canadian-funded projects at Shchuch'ye.

Second, I will describe our plans for future work at Kizner, and how we will apply the lessons we have learned from our experience at Shchuch'ye.

Canadian Funded Projects at Shchuch'ye

Railway Project:

- **18 km railway and bridge linking the chemical weapons storage facility to the destruction facility;**
 - value \$33M
 - support from NTI (US \$1M) towards bridge
- **The project is now 87% complete**
- **Bridge superstructure over river Miass completed in August 2007**

We have already heard today from James Harrison (and others) about the work underway at the Shchuch'ye site.

I would like therefore to focus on the tangible progress made in the delivery of out projects and outline what remains to be done.

One of our major projects of course is the rail line and bridge that will link the storage facility to the destruction facility. The project is approximately 87% complete if you include planning and construction, although significant construction efforts are still outstanding. However, a core element of construction was the bridge over the river Miass which is now complete.

Picture – Railway project: Bridge dedication ceremony: August 2007

In August 2007, Canada's Ambassador to Russia, His Excellency Ralph Lysyshyn joined US Senators Nunn and Lugar, representatives of the Nuclear Threat Initiative, UK MOS and RosProm at the rail bridge site to highlight the success of our cooperation at Shchuch'ye.

Picture – Railway project: Bridge side as of October 1st 2007

This short video, taken at the start of October this year shows a panoramic view of the bridge and the southern approach earthworks.

Picture – Railway project: problems and progress

The rail project has faced a series of problems that have had a severe effect on the progress of the project which is now over 4 months behind schedule.

A major challenge encountered was a several month delay in obtaining tree cutting permits. The lack of permits meant that the installation of river flow control structures could not take place before the spring thaw and significant flood damage occurred to earthworks near the bridge which required extensive remedial action. In addition, completion of the bridge was delayed due to the trees that can be seen on the southern shore.

Also, in May when the thaw came, an area of standing water was discovered near the CWDF site requiring a design amendment. Design amendments are a normal part of most construction projects and are usually minor. However, the process of obtaining design amendments has proven to be complex and very slow; causing delays and preventing work from progressing as planned.

Infrastructure projects:

- **Local public address system;**
 - **Provides times information to residents in the 16 settlements near the facility**
 - **Installation planned for 2008**
- **Inter-site communications;**
 - **Between the storage facility, the destruction facility and the telecommunications center in Shchuch'ye**
 - **Project was completed in late September 2007**

In addition to the rail link, Canada has also committed \$10M for infrastructure projects at Shchuch'ye namely the construction of a Local Public Address System and Inter-Site Communications.

These high-priority projects were identified by RosProm and will ensure the safe functioning of the facility and the safety of local residents.

The LPAS project had suffered significant delays due to design changes and contracting issues, including the inclusion of VAT into proposed prices. Canada remains committed to funding this important project and we are hopeful that a solution will be found to resolve outstanding contractual issues in order that the implementation of this project which will provide a fundamental piece of safety and security equipment for the local residents to begin.

The ISC project which provides a secure high-speed communications channel between Shchuch'ye, the storage facility at Planovy and the Destruction facility is now complete and in October this year responsibility for the system was transferred to the

Federal Directorate.

Main Destruction Building projects: (Total Value = \$55M)

- **Demilitarization process lines, munitions thermal treatment process lines, leakers treatment area;**
 - Currently undergoing manufacture
 - System testing will take place prior to delivery to site
- **Catalytic reactors;**
 - Project was completed in February 2007
- **Venturi scrubber;**
 - Built and awaiting shipment to site, this should be delivered in November 2007

The last of our projects involves providing destruction equipment for building 1A at Shchuch'ye. Canada has allocated \$55M for this project.

We are pleased to announce that the contract to manufacture the Destruction proves lines was signed earlier this year and manufacturing is proceeding on schedule. Testing of the equipment will be performed in early 2008 with delivery expected soon thereafter. Placing this contract suffered a delay of several months due to difficulties in defining the scope of the work and finalizing contractual details with FAI.

I am also pleased to announce that Canada's project to supply the catalytic reactors to site is now complete and the Russian party had already installed the equipment in building 1A.

Finally the project to manufacture a Venturi Scrubber has also been completed. Although manufacturing, by a company in the Netherlands, was finished at the start of the year, obtaining the necessary shipping documents through the appropriate authorities took several months. These documents are now in place and the equipment will be shipped to site in November.

Picture – Main Destruction Building projects

These two pictures show the testing of the US demilitarization process lines to e supplied to Shchuch'ye. The demilitarization process lines for building 1A which Canada is funding are being manufactured by the same supplier and will be tested in early 2008.

Main Destruction Building projects:

- **Package of equipment including; vessels, heat exchangers, column, pollution abatement system**
- **Package of equipment including; sampling equipment and automated process control systems**

Other equipment for building 1A, as listed here, will also be funded as part of the project to provide essential equipment items for the CWDF.

Shchuch'ye – Final Stages

- **It is anticipated that all Canadian funded projects will be complete by mid 2008**
- **Progress, sometimes difficult, continues to be made and Canada remains committed to deliver projects**

Canadian funded projects have made significant progress over the past few years at Shchuch'ye. This progress has however been less than we wanted or anticipated. Many problems have been experienced – from difficulty obtaining tree cutting permits, to delays in agreeing contractual details with FAI, last minute design changes, and the inclusion of VAT in proposals from subcontractors – just to name a few. That said, we are on the road to fulfilling our commitments at Shchuch'ye and expect projects to be completed by mid 2008.

Kizner

- **Canada had committed up to \$100M funding for the supply of equipment at Kizner**
- **Canadian projects at Kizner will be governed by the Canada-Russia bilateral agreement**
- **We will continue to work closely with our UK partners**
- **We are in the final stages of negotiations for the implementing arrangement with RosProm**
- **Projects are currently expected to start in mid 2008**

At the G8 Summit in St. Petersburg, Canada committed \$100 million for the CWDF at Kizner, out of the total \$150 million committed for new projects under the Global Partnership.

As at Shchuch'ye, we will continue our close and productive cooperation with the United Kingdom. However, on the Kizner projects the Canada-Russia bilateral agreement will form the legal basis for our cooperation with the Russian Federation. Negotiations are currently under way to finalize the mechanism for this work with RosProm and the UK MoD.

Kizner – Equipment

- **Maximize funding value by funding the supply of equipment for the 2 main destruction buildings and the leakers treatment building at Kizner.**
- **Equipment will likely include:**
 - **Destruction process lines**
 - **Catalytic reactors**
 - **Standard and non-standard equipment**

In Canada's approach to Kizner we have examined our experience at Shchuch'ye to evaluate how we can do better. We realized that in order to maximize the value of Canadian funding to the CWDF at Kizner, Canada should supply similar equipment to that being supplied to the CWDF at Shchuch'ye. Equipment may include destruction process lines, catalytic reactors and standard and non-standard equipment.

Thank you Green Cross!

- **Green Cross continues to provide a necessary and very important role in the Russian CWD program**
- **Canada is providing \$100K x 4 years for the Izhevsk Public Outreach and Information Office**

In conclusion, I would like to underline that we are proud to work with the Green Cross through our continuing contribution to the operation of the Green Cross public outreach and information center in Izhevsk. And I would like to thank Green Cross for this opportunity to speak this morning.

Thank You.

Swiss Contributions to Chemical Weapons Destruction in the Russian Federation



Andreas Friedrich
Head, Arms Control and Disarmament Section
Swiss Federal Department of Foreign Affairs

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

The long list of participants proves how useful such events are. This forum remains 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 good 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 more than 200 million roubles by the end of this year. This is about 60% of the total Swiss funds allocated to this program. As you probably know, our assistance to chemical weapons destruction in Russia will terminate at the end of 2008 since all the available funds will have been spent by then.

Before briefly telling you what was realized this year, let me remind you that two major projects were already completed by the end of last year:

First, the Sanitary and Hygiene Monitoring System around the Shchuch’ye destruction facility.

Second, the reconstruction of the electrical substation in Kambarka.

Our major project of this year was Maradykovsky. It again related to technical infrastructure and was completed in September. We provided around 60 million roubles to the equipment of the electrical substation that will supply electricity to the destruction site. As in Kambarka, our technical expert who visited the project concluded that the substation is very well constructed and that western technical standards are either met or exceeded. After the completion of the destruction operations in Maradykovsky, the electrical substation will contribute to the electricity supply of the city of Kirov.

What are our plans for the future?

In a few days we are signing the implementation agreement for a project to equip the electrical substation at Leonidovka, worth 66 million roubles. This new project is expected to be completed next year.

Our remaining funds dedicated to the Russian Federation will then be spent on an electrical substation in Pochev in 2008. This will be our last project.

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 130 million roubles in the Russian Federation through Green Cross to facilitate chemical weapons destruction.

Switzerland will continue until the end of 2008 to fund the Green Cross outreach offices in Kirov, Penza and Pochep as well as some specific projects.

We were pleased to hear that the two thousand emergency radio receivers that were financed by Switzerland and distributed to the households around the Kambarka destruction site last year continue to be appreciated and that there is still high demand for these radios.

Before concluding, let me make three more remarks.

Firstly, we appreciate the partnership with Russian colleagues. Generally speaking, we continue to be satisfied by the way our projects are managed by our Russian partners. The coordination of our work is efficient and the communication channels are well established both at working and higher levels.

Secondly, 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. We have therefore been very successful with our efforts to keep overheads and general expenses as low as possible.

Thirdly, as I pointed out last year already, our parliament is aware of the steadily increasing oil and gas revenues of the Russian State, and some of our parliamentarians continue to question whether it is still appropriate under such circumstances 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 appreciate the Russian government's 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.

French Assistance to the Russian Chemical Weapons Destruction Program



Alain Mathiot

Director

G8 Global Partnership Program for France

I wish to thank the organizers of this National forum, and especially Green Cross, for giving me the opportunity to present the French action in the field of assistance to chemical weapons destruction in Russia. This is my second visit to this dialogue and many events took place during the past year regarding French-Russian cooperation.

The cooperation framework between our two countries is now operational, and our two common projects are well under way.

As you may know, chemical weapons destruction is one of the French priorities within the frame of the Global Partnership against weapons and materials of mass destruction, as well as elimination of weapon grade plutonium, dismantling of nuclear submarines, response to biological threats and redirection of former weapons scientists.

With regard to chemical weapons destruction, France is involved in two projects, both of them concerning the site of Schuch'ye.

The first involves environmental monitoring of the area surrounding the chemical weapons destruction facility. This involves the weapons storage site, the dedicated railway link between storage and destruction site and the towns included in the so-called protection area.

More than 15 species will be analyzed in air, water, soils, plants, etc... through 11 stationary and 9 mobile stations.

Daily sampling of materials will be measured in a dedicated central laboratory on the site and the results will be supplied to the authorities and the population as needed. Complex modeling tools will allow us to produce pollution maps that take into account external (weather) parameters. In case of an unforeseen release of toxic material, the system will play an important role in crisis management and supply relevant information to the operators in charge of the destruction facility and to the local and regional authorities, in order to facilitate the decision making process. Two other monitoring systems provide interrelated information:

- the process monitoring system, financed by the United States;
- the health and epidemiology monitoring system, financed by Switzerland.

The contracts concerning realization of the monitoring system entered into force at the end of October 2007, since the implementation agreement between The Federal Agency on Industry (ROSPROM) and the French atomic energy commission (CEA), in charge, for France, of bilateral cooperation projects within the Global Partnership,

was signed in July 2007 in Moscow. The main operator from the Russian side is the ROST association, which already was in charge of such monitoring systems in Gorny, Kambarka and Maradykovsky. France is assisted by a Franco-Russian consortium for project management, and a significant part of the equipment will be provided by the French company ENVIRONNEMENT S.A., which specializes in environmental monitoring for industrial sites. We hope that this monitoring system will be operational before end of 2008, this means before the beginning of the industrial destruction in the facility.

The second project involves funding equipment for the second line of destruction at Schuch'ye (Building 1A).

This project, which started during summer 2007, is managed by the U.K., on behalf of several donors, among them Canada, The Netherlands and Ireland. The necessary legal documents entered into force in April 2007 and the U.K. is now managing the French funds with the others. French experts are associated with the managing process, and France has already agreed to pay for the necessary sorbent fill for the catalytic filters which are a part of the process. We are very satisfied with the British way of managing this huge project and hope that the process line will be ready to start by the beginning of 2009.

Ladies and gentlemen, as you may have seen during this presentation, many positive events have taken place since the last national dialogue in November 2006.

These advancements were achieved thanks to the common goal of ROSPROM and CEA to respect the deadlines of the chemical weapons convention which represent a heavy constrain on the program. Several difficulties were encountered during the elaboration of the contracts, some of them due to a certain lack of coordination between Russian organizations or to the complexity of the Russian administration.

We would like to work together with other donors for such complex projects as the second destruction line at Schuch'ye. We believe that the Global Partnership presents an opportunity to further develop the French-Russian relationship as well as inter donor relationships.

Netherlands Assistance to the Destruction of Chemical Weapons in the Russian Federation



*Diana Gosens
Senior Policy Officer, Security Policy Department
Ministry of Foreign Affairs
The Netherlands*

Ladies and Gentlemen,

I am very glad that Green Cross has given me the opportunity to address this audience here at the Chemical National Dialogue in Moscow.

This year of 2007 we celebrate the tenth anniversary of the Chemical Weapons Convention.

On the 9th of May, Her Majesty Queen Beatrix of the Netherlands unveiled a memorial, dedicated to all victims of chemical weapons, right outside the Organization for the Prohibition of Chemical Weapons (OPCW) building in The Hague. This memorial will help us to remember the legacy of human suffering.

In order to pay tribute to the important work that has been achieved in the last ten years, to celebrate the tenth anniversary of the Chemical Weapons Convention and the OPCW and to highlight the importance of multilateralism, the Kingdom of the Netherlands and the Republic of Poland organized a High Level Meeting in New York last September.

Still, a lot of work remains to be done when it comes to the destruction of chemical weapons. The deadline for the possessor states to destroy their stockpiles has been extended to 2012.

It is the view of the Netherlands that destruction of the world's chemical weapons is important to the security of all of us.

Up until today, the Netherlands have provided assistance to the Russian Federation in the amount of about 11.3 million Euros. Furthermore, we have financed projects with Green Cross. These projects are aimed at civil society.

After a period of bilateral assistance to the destruction facilities, we have started to channel Dutch funding through the United Kingdom. This practice of donor coordination through the United Kingdom has important advantages for the Netherlands, and for other smaller donors. Donor coordination is also a necessary condition for us to be able to continue our funding.

First of all, donor coordination enables smaller donors to contribute to a program or project that otherwise would not be considered, because of the administrative burden placed on the donor by the requirement to negotiate a bilateral agreement or specific bilateral arrangements. Secondly, our bookkeeping rules force us to have very detailed reports on expenditures. Thirdly, it should also be stressed that it makes it possible for

us to make contributions to a larger project than we would be able to afford individually. Last but not least, it helps us to reduce overhead efforts and costs in setting up and implementing projects. For the Netherlands it is extremely important to work through donor coordination in this way for the reasons I just mentioned.

Ladies and Gentlemen,

In conclusion, I would like to stress once more the importance that the Netherlands attaches to the Chemical Weapons Convention in general and, more specifically, to the destruction of stockpiles of chemical weapons. We are investigating further options to see if we can continue our assistance in the future.

Thank You.

Finnish Assistance to the Russian Chemical Weapons Destruction Program



Sari Rautio
First Secretary
Embassy of Finland in Russia

Dear organizers and participants of the National Dialogue,

Finland has since the outset been committed to the Chemical Weapons Convention process, and from this point of view we consider it important that our country and the EU support Russia in its program for chemical weapons destruction in order to fulfil its commitments under the Convention. At the moment Finland is, as a member of the Executive Council of the Organization for the Prohibition of Chemical Weapons (OPCW), engaged in the facilitating progress of national implementation of the Convention. Also, contributing to the verification part of the process has always been a priority issue for us, not least through our own national authority, the Finnish Institute of Verification of the Chemical Weapons Convention (VERIFIN).

In recent years, Finland has supported international chemical weapons destruction programs through Global Partnership and other channels at the level of 1 million Euro a year. In Russia, Finland has supported the Chemical Weapons Destruction Program since 1999 - first on a bilateral basis and lately under the Global Partnership initiative. The bilateral support from 1999 until 2003 was directed to the environmental monitoring systems of two stockpiles: Gorny and Kambarka. Both of these projects were finalized before Finland joined Global Partnership in 2003.

There have been some challenges in identifying suitable technical assistance projects for a smaller country like Finland to finance in the framework of Global Partnership in Russia. Recently we have made the decision to support the building of infrastructure for the chemical weapons destruction facility in Shchuch'ye, and this we do in cooperation with our British colleagues. We hope that our part of the support will be operational soon. In this connection I would like to thank both our British and Russian colleagues for their good cooperation.

Since 2004, Finland has financed the activities of Green Cross Russia in the area of information and public awareness building. Green Cross organizes activities that raise the awareness of the population around the destruction sites, educate citizens on issues of technical, environmental, political and medical aspects of the storage and destruction of their local stockpile. One of the goals of these activities is to facilitate open, direct and ongoing communication between federal, regional and local officials, experts and citizens. Geographical areas of this support have been Kirov (Maradykovsky stockpile), Mirny, Kambarka and Bryansk. We think that raising public awareness is a key element for the success of the destruction program.

Finland is strongly committed to the destruction of chemical weapons stockpiles in Russia. We have an overall financing framework for chemical weapons destruction and accordingly there is space for new support activities under the Global Partnership program - possibly in cooperation with other international partners. We hope that cooperation in this field with our Russian counterparts, Green Cross and other partners will continue in a good spirit in the future.

I look forward to hearing today and tomorrow how the Russian Chemical Weapons Destruction Program as a whole is progressing.

Thank you.

Chemical Disarmament in Russia: Past, Present and Future



Nataliya Kalinina
Chief Scientific Researcher at the Institute for World
Economics and International Relations
under the Russian Academy of Sciences

I will join the others and say a few warm words about Green Cross Russia, which has allowed us to hold such productive meetings on a regular basis, and many of those in attendance have taken part in this discussion. This open, international conference is having an undeniably positive impact, and over the ten years since the Convention came into force, we have had plenty to discuss, such as the progress we have made internationally, and in Russia.

We are here to commemorate the 10th anniversary of the Chemical Weapons Convention (CWC), and I would like to very quickly remind everyone of the historical milestone that led to the chemical disarmament of Russia. Many of you probably remember that Russia decided to cease the production of chemical weapons (CW) in 1987, long before the Convention was signed, and ten years before the Convention came into force. In 1989, the first chemical weapons destruction (CWD) facility was constructed in Chapayevsk. This facility has become a monument to uncoordinated, poorly prepared actions in Russia. When the facility was built, nothing was truly ready in terms of safety or the region's local residents' understanding of what was going on. As a result, the colossal investments made in the construction of that facility were all for naught. In 1990, Russia and the United States signed a bilateral agreement on CWD, but it did not come into force, even though it was signed at a high level. One of the reasons is that by that time, the time was ripe for a multilateral international agreement. Negotiations about the Convention were nearing a conclusion and it was clear that it was much more important for the progressive development of the global community and the disarmament process to tackle this issue in an international, multilateral format, making the destruction of CW stockpiles an objective for all countries, and not just for Russia and the US. The first CWD program was launched in 1992 and submitted to the Supreme Soviet of the RSFSR for ratification. The collapse of political power in Russia prevented this step from being taken and the program was archived. It was only after the Convention was signed that we began to discover previously adopted documents that are still legally valid.

The first Federal Target Program (FTP) of particular importance that brought CWD to the government level was introduced in 1996. There was a lot of talk about it, but few remember that it was under this program that Russia intended to complete CWD by 2004 followed by a three-year effort to rehabilitate the land.

Initially, the FTP was meant to be fully completed by 2007, in line with the Convention's requirements. But the physical and actual destruction of the final products was to be completed in 2004. Due to a variety of political, economic and social issues, the FTP was not carried out. Nevertheless, all of the subsequent variations of the Program

emerged not as independent documents, but rather as amendments to the original 1996 document. And there were plenty of amendments. In 2001, a second revision of the FTP was adopted, and a third revision was approved in 2005. Today we have the fourth version, and it may not be the last. It is possible that reality on the ground will make us introduce more amendments.

Considering that the country's finances did not allow it to begin engaging in CWD and the construction of CWD facilities right away, Russia took enormous efforts toward forming a legislative base for CWD. Two new, distinctive documents appeared in 1997. One of them was the Federal CWD Law, which, in contrast to Russia's typical legislative practices and those of most countries, was released even before the CWD process was started. As a rule, laws are formed after a certain amount of experience and knowledge has been accumulated about the processes that need to be officially regulated. The second law adopted in 1997 was the ratification of the Convention. It would seem as though that's nothing to talk about. In most countries, laws on the ratification of international agreements — including in Russia — contain just one sentence: "Hereby ratify the such-and-such agreement" — and that's it. But Russia's law on the ratification of the Chemical Weapons Convention (CWC) is not at all typical — there are no others like it. It clearly sets out the responsibilities of all of the government authorities, beginning from the President, the Government, the Federal Assembly chambers, and federal executive authorities. Under this law, the Russian Government submits annual Convention progress reports to the Federal Assembly chambers under Presidential orders.

There was another important event in the development of a forward-moving CWD process in 2001: the decision to remove CW and the Military Units that stored and maintained the stockpiles from the jurisdiction of the Defense Ministry. This unusual step stemmed from two main circumstances. The first was related to the fact that when Russia asked the international community for assistance, many partners told us that they did not have access to the Defense Ministry as it was so closed-off. They expressed their uncertainty that any money they might provide would be used for its intended purpose rather than the development of new types of weapons.

The second factor, which was truly in line with national interests, was that removing the matter of CWD from the jurisdiction of Russia's massive Defense Ministry actually gave it a national status and it began to sound like a stand-alone global issue aimed at ensuring safety.

Yet another important event that facilitated the governance of relations between federal and regional authorities was the formation of the State Commission for Chemical Disarmament in 2001.

The milestones we have achieved today are obvious, but I would like to comment on some of the amendments made to the FTP that we have witnessed since 2001. The second revision included conceptual provisions that managed to account for the wishes of our foreign partners, in particular the US conditions that munitions be transferred from Kizner to Shchuch'ye. This provision—one of the key provisions that changed the concept of CWD as being tied to CWD storage locations—was included in the Program. But things turned out a little differently than planned. If that position had been maintained in the FTP, Russia would not have been able to complete CWD in 2012 or

even in 2017, since construction delays in Shchuch'ye and constant extensions of the deadline by which facilities were to be operating made it unrealistic. This was further complicated by the size of the stockpiles at Shchuch'ye and Kizner and the operating capacity of the facility under construction in Shchuch'ye.

After Russia initially agreed to these conditions and integrated them into the FTP, and after financial and economic feasibility studies were prepared for the costs involved with the relocation, it became clear that there was a need for some major legislative amendments concerning the relocation of CW and related costs. The costs were so high that the FTP became twice as expensive, making it senseless to proceed. We had to increase our own spending several times over in order to create an infrastructure for the relocation. The subsequent programs in 2005 and 2007 specify deadlines for launching operations at facilities depending on financing and the readiness of technical solutions. In 2005, the plan was to put the Shchuch'ye facility into operation in 2007; that deadline has been pushed forward to mid-2008, if everything goes well. Naturally, Russia's expenses are also on the rise. It is a good thing that our economic situation can accommodate that. Allow me to list a few figures from the costs of the four versions of the FTP: in 1996 the FTP cost 16 trillion rubles, which is 16 billion rubles at today's values; in 2001 the FTP cost 92.7 billion rubles; in 2005 it cost 160.4 billion rubles, and in 2007 it cost 183.8 billion rubles. This gives us hope that the responsibilities that Russia has taken on can be fulfilled by 2012, if there are no unforeseen problems. What do I mean by unforeseen problems? The fact is that the latest FTP is quite different from the others in that it specifically stipulates 42.7 billion rubles in promised funding from international partners. That money is expected in the Program and all of the work and all of the capital investments were calculated based on those funds as well. The actual cost of the Program is 183.8 billion rubles plus 42.7 billion rubles. Russia is concerned about insufficient international investment, which is most likely not only due to the unwillingness of our foreign partners to provide prompt assistance, but to bureaucratic delays in the countries involved, Russia included. Today, our ability to use the investment by the global community is cause for concern, not only with regard to the adequacy of these investments, but also in terms of the timing of secured financing. It has been said many times that all of the facilities should be up and running no later than the second half of 2008, and that there are different deadlines only for the Kizner facility. As a result, the investments need to be made now. They won't be as crucial in 2009–2012.

The FTP has another peculiar feature: it is the only program that contains social obligations and that stipulates the allocation of funds for social infrastructures, including for establishing a dialogue with the population. More specifically, over 20 million rubles are spent each year on public outreach.

The program sets out Russia's expense obligations for CWD inspections. This is also an unusual requirement. All of the agreements that stipulate inspections are paid for by the party that comes to perform the inspection, i.e., the inspecting party generally finances all inspection-related costs. Under this Convention, however, Russia must pay to have other parties inspect its progress. The heftiest expenses, which are growing each year, are related to the continued presence of international inspectors at CWD facilities. For one month before a facility is put into operation and until that facility has completed all operations a group of inspectors is continually on-site and fully financed by the Russian Federation. The expenses of these inspectors must also be reimbursed.

By Russian measures, these salaries are anything but affordable. These additional expenditures leave their own mark on the volume of financing associated with the FTP.

If Russia is doing so well financially from an economic perspective, then why bother helping? These types of questions are probably asked by the taxpayers of countries involved in the CWD effort. I would like to examine this problem from two different points of view. First of all, can today's Russia really meet all of the Convention's requirements by the deadline without any international assistance? I believe it can. The economic situation today is such — and we can see this in the growth of federal monies — that we could accept another revision of the Program and increase expenses by that 42 billion rubles in international aid that we were counting on, and Russia will fully meet its obligations on its own. There is, however, one catch. In order to take that step, the government, which does not believe that it should provide any more aid for economic reasons, is the one that must make that decision. And this is a political decision. Would any government today go so far as to renege on an agreement that it has already signed? I doubt it. That is why, for political reasons, this collaboration will remain as-is. For several years now, we have been observing a slow-down in the provision of aid associated with economic considerations. If that continues for much longer, Russia will have to make the decision to increase federal funding. But if you look at how the collaboration is organized, the foreign firms and companies that are involved in the process, and the funds that stay in the countries providing aid in the form of equipment, workers and project management, one can see that only 15–20% of the promised funds are actually coming to Russia. That means that the parties to this cooperative system should still be interested in continuing this collaboration.

All of the countries that provide assistance are parties to the Convention and they must also ensure that Convention obligations are met in full. I think that creating the conditions for Russia to suddenly not meet some of its obligations or not meet Convention deadlines is a danger that ought to lie on the shoulders of the international community. When we signed and ratified the Convention — under absolutely unacceptable economic conditions for Russia — the global community made some very big promises. You and I can now see how these promises are being kept. The conclusion we can draw from the situation today is quite positive. For the time being, there is nothing that might prevent Russia from meeting its obligations.

Ten years later, the Convention has not become universal: we know which countries have not signed it and which signatories have problems with the Convention itself. With that in mind, and considering that the destruction of all disarmament processes is taking place in the world today, naturally the question of upholding the Convention is of colossal importance, and we must do what we can to support it.

In terms of national matters, the most pressing problem concerns the future use of CWD facilities. The global community and the participants of today's Dialogue must look at this problem in the same way it considers international integration. I believe that Russia will be happy to accept any proposals related to the conversion of today's CWD facilities. Along those lines, holding a competitive bidding process via an international scientific center for proposals on how to use these facilities is a possibility. We cannot allow the creation of ghost cities in Russia, we have lived through that with nuclear cities, and we cannot let the same happen with CWD facilities.

The Chemical Weapons Destruction Process and Building a Civil Society in Russia



Vladimir Leonov
Program Director
Green Cross Russia

Dear Chairman, Dear Participants,

This Dialogue is taking place on the eve of the tenth anniversary of the ratification of the Chemical Weapons Convention (CWC). Over the past decade, a great deal of work has been done in the regions where chemical weapons (CW) are stockpiled: facilities are being built to destroy CW and social infrastructure projects are under construction. As other speakers have already mentioned, the tasks set out in the Convention are being carried out. Over 20% of declared CW stockpiles have been destroyed.

The process of chemical weapons destruction (CWD) has mirrored the travails of our society. Events have taken place and are still taking place, some of which have had dramatic consequences, and we are witnesses to and participants in this process.

The disarmament and destruction of the excesses of the Russian war machine has coincided with the process of rebuilding our society upon a new, democratic foundation. In the late eighties and early nineties, information about the stockpiling of chemical weapons and plans for CWD was made available to the public, including information about the construction of CWD plants, which were potentially hazardous plants. This caused a surge of tension among the residents of the regions where CW were stored and the CWD process was to take place. The situation was further aggravated by the dearth of objective information about stockpiling facilities and the potential effects of these weapons on humans and the environment.

If you recall, back in 1988 a facility was built in Chapayev (the Samara Oblast) for the purpose of destruction of chemical weapons stored in different parts of the country. This caused a public outcry and numerous protests. As a result, the facility was never put into operation, and the start of CWD in Russia was postponed for a long time. It was then, naturally that the roots of democracy began to take hold in Russia.

It needs to be said that different groups of environmentalists had very different views on chemical disarmament. More radical environmentalists took advantage of the people's poor understanding of issues concerning the storage and destruction of chemical weapons and actively spoke out against the planned disposal of stockpiles. By falsifying facts, they criticized the actions of the government toward CWD and presented themselves as defenders of the interests of a number of people against infringement by the government and making themselves look like authorities on the matter. Yet, if you consider that this subject affected many thousands of people, their opinions and their views on chemical disarmament became a significant factor that could not be ignored.

Growing controversy surrounding the destruction of chemical agents, the fabrications by dilettantes and spreaders of gloom and doom combined with the frequent negative publications in the media and a passive stance on the part of official print media outlets certainly had an impact. Public opinion was agitated and mislead, particularly that of the residents of areas where CW stockpiles were located. All of these factors contributed to the destabilization of the situation in the regions, and sometimes even manifested itself in mass demonstrations.

This was the result of insufficiently forward-looking measures towards shaping positive opinions in support of these planned, large-scale and crucial actions.

Green Cross Russia (GCR) was actively involved in working with the public when the situation surrounding the construction of CW storage and destruction facilities came to a head, and the question of ratifying the Convention required immediate action. The main tasks were to shed light on the matter, tell the truth about existing problems related to the storage and destruction of chemical weapons, resolve matters of environmental safety during construction of facilities and applied technologies.

GCR proposed holding public hearings on CWD that provided an opportunity to hold an open discussion and listen to the discussions among representatives of the public and social enterprises, authorities, the Defense Ministry, the Committee for Conventional Issues of Chemical and Biological Weapons, developers of CWD technology, doctors, and environmentalists. The key goal of the hearings was to establish mutual understanding between the population and social and environmental movements on the one hand, and the authorities and government agencies on the other hand. It was meant to provide a platform for discussing the practical steps to be taken toward solving this very complex issue. GCR's initiative was supported by the Russian President.

The first of these hearings was organized in Saratov in October 1995. It should be noted that the hearings were conducted under challenging circumstances. The Oblast Administration at the time associated social environmental activities with the actions of local radical activists who were bent on confronting and opposing the official policies on all aspects of CWD. The fundamental principles of Green Cross — “cooperation, not confrontation” and “a constructive approach to resolving environmental issues” — were viewed with a healthy dose of skepticism.

Nevertheless, the hearings took place peacefully, and the discussions were all business. The speakers voiced their concerns, and they received answers directly from experts who were well-versed in the subject and clearly explained the truth of the matter. These hearings had a major impact on shaping a positive opinion among the residents of the Saratov Oblast and, in the end, they predetermined the construction of the facility in Gorny — the first operating facility.

In the hearing report, it was stated that: “the destruction of chemical weapons stockpiles must be discussed together and resolved by the federal and local bodies of government, ministries and agencies, non-governmental organizations, and the public, with the participation of prominent Russian and foreign experts.”

Later, similar hearings were held in all of the areas where CW stockpiles were located.

The report from the third hearing, which was held in 1997 in the Kurgan Oblast,

stated: “Request that the State Duma of Russia fast-track the ratification of the Chemical Weapons Convention. The hearing participants are appealing to all government, intergovernmental and other organizations urging them to provide technical and financial aid to Russia for its efforts in CWD.” An appeal to State Duma deputies for their support of the ratification of this Convention gathered the signatures of 50 social enterprises and movements.

Russia’s ratification of the CWC and its coming into effect in 1997 were major steps forward in the process of prohibiting and destroying one class of weapons of mass destruction.

The key efforts made by GCR in this field were:

- Informing the public about environmental issues in the post-Cold War era,
- Forming a constructive public opinion regarding the need to solve these problems,
- Conducting joint events with different social and government institutions in order to discuss related matters and develop appropriate solutions, and
- Conducting practical actions to monitor the pollution of territories and their remediation.

In other words, it was a response to the concerns of the local population and assistance in assessing the situation and in ensuring safe living conditions. In the end, this helped shape a positive public opinion about CWD-related matters.

Efforts began with informing the public and shedding light on complicated environmental issues at public outreach centers. Over ten years, methods have been developed for working with public opinion, and these methods can help change the negative perception of CWD matters into constructive views. This is confirmed by regular sociological studies that we have conducted in all of the regions affected by CW storage and destruction.

There are many aspects of working with the public, and one of the most important is working with children.

Working with children is primarily important from the perspective of raising the literacy of the next generation in these matters. They will be the ones who live here and continue to tackle the problems that society faces as active and responsible citizens.

Each year GCR centers organize seminars for school teachers in all areas dealing with CWD issues. These seminars discuss the key questions of CWD and ensuring safety. Children’s summer health camps are also organized, and children are selected for these camps based on local doctor recommendations. The camps teach children how to lead a healthy lifestyle and answer questions related to the destruction of chemical weapons, fostering awareness of and responsibility for the environment. Children can take classes on civil defense and also learn what to do in emergencies. GCR offers self-government classes in addition to children’s drawing contests and literary and nature preservation projects. These types of classes are generally held in collaboration with local schools and incorporate civil defense and emergencies agencies.



*Mr. Voronov, Green Cross Russia Staff and
Member of the Organizational Committee is ready to start proceedings*



*The Main Co-Organizers of the Dialogue, left to right: Dmitry Timashkov,
Advisor to the Center for CWC and Disarmament Programs at the
Federal Agency on Industry; Victor Kholstov, Deputy Head, Federal Agency on Industry,
and Sergey Baranovsky; President of Green Cross Russia*



Sergey Baranovsky, Chairman and President of Green Cross Russia, opens the proceedings (center)



Andrei Shevchenko, Deputy Head of the Scientific-Technical Center of the Federal Department for Safe Storage and Destruction of Chemical Weapons, answers questions



Galina Vepreva, Director of the GCR Public Outreach and Information Office in Shchuch'ye, asks a question



Paul Walker, Director of the Legacy Program, Global Green USA, makes a comment



Journalists listen during the press conference



*Mr. Litovkin (center) has a question for Victor Kholstov,
Deputy Head of the Federal Agency on Industry (left)*



*Wacław Gudowski, Deputy Executive Director,
International Science and Technology Center (ISTC)*



Left to right: Vladimir Fyodorov, Head of the Public Relations Group, Mirny Arsenal (the Kirov Oblast); Gennady Knyazev, Head of the PRG, Kambarka Arsenal (the Udmurt Republic); Vladimir Leonov, Head of the PRG, Kizner Arsenal (the Udmurt Republic); Alexey Ivanov, Head of Public Relations Group, Pochep Arsenal (the Bryansk Oblast)



Nataliya Kalinina, Chief Scientific Researcher at the Institute for World Economics and International Relations under the Russian Academy of Sciences



Left to right: Sergey Baranovsky, President of GCR; Dale Ormond, Acting Director, Chemical Materials Agency, U.S. Department of the Army; Sari Rautio, First Secretary, Embassy of Finland in Russia; Stefan Aus Dem Siepen, Counselor, Political Department, Embassy of Germany in Russia; Colleen Pigeon, Second Secretary, Global Partnership Program, Embassy of Canada in Russia



Vladimir Pankratov, Green Cross Penza Public Outreach Office (left) is talking to Svetlana Maslova, Director of the “Awareness” Research Center (right)



During the plenary session, left to right: Ms. Fyodorova for the Prirodno-Resursnyye Vedomosti newspaper; Mr. Chumakov, Vice President of Green Cross Russia; and Mr. Pimenov, Acting Director of Green Cross Russia



Dialogue participants in the audience



Foreign panelists during the discussion of foreign financial assistance to Russia through the Global Partnership (GP) Program. Left to right: Alain Mathiot, Director of the G8 Global Partnership Program for France; Andreas Friedrich, Head of the Arms Control and Disarmament Section, Political Affairs Secretariat, Directorate of Political Affairs, Swiss Federal Department of Foreign Affairs; Diana Gosens, Senior Policy Officer, Security Policy Department, Ministry of Foreign Affairs, The Netherlands; James Harrison, Assistant Director, Russian Assistance Program, Counter Proliferation and Arms Control, UK Ministry of Defense; Wacław Gudowski, Deputy Executive Director, International Science and Technology Center (ISTC); and Sergey Baranovsky, President of Green Cross Russia



Left to right: Ludmila Komogortseva, Chairman of the Committee on Environment and Use of Natural Resources, the Bryansk Oblast Duma; Andrei Gorenkov, Head of Office on Chemical Weapons Convention Implementation, Department of Industry, Transportation, and Communications, the Bryansk Oblast; Mr. Bulatny, Director, Green Cross Bryansk Public Outreach Office



Svetlana Maslova, Director of the “Awareness” Research Center (left) and Ms. Kurlyandtseva, RIA-Novosti News Agency



James Harrison, Deputy Director, Counter Proliferation and Arms Control, UK Ministry of Defense



Aleksandr Kirilin, journalist, Udmurtskaya Pravda (left) and Anatoly Arefiev, Director, Green Cross Izhevsk Public Outreach Office, the Udmurt Republic



*Aleksandr Ivanov, Head, Department of Environment and Biology,
Penza State Agricultural Academy*



*Left to right: Aleksandr Kuzmin, Head, Public Relations Group, Shchuch'ye Arsenal;
Oleg Dubrovskiy, Head, Regional Information Center on Questions of Chemical
Disarmament, Kurgan Oblast; Tatyana Shingarenko, Director, Regional Center for the
State Control and Environmental Monitoring of the Shchuch'ye CWDF, Kurgan Oblast;
Sergey Fyodorov, Chief Specialist, Department for the CWC and the Rehabilitation of
Territories, Kurgan Oblast Administration*



Nataliya Kalinina, Chief Scientific Researcher, Institute for World Economics and International Relations, Russian Academy of Sciences (right) and Vladimir Alexeev, Head of Department, Izhevsk State Technical University (left)



German Frizorger, Head, Center of Environmental Monitoring and Information Provision, Ministry of Natural Resources and Nature Protection, the Udmurt Republic

While children are at the camp, their health usually improves, as well as their overall mood, and they gain a more positive outlook. Over the course of ten years, these children have grown up with a practical view of chemical weapons issues, rather than emotional responses.

Education of the leaders of administrations and companies are also very important. Representatives of both executive and legislative branches of government hear scientists and experts speak professionally about chemical weapons and CWD and possible emergencies. They also discuss how to make the right decisions in time-sensitive situations to protect the public and ensure that the government continues to run smoothly, and the best ways to work with the public.

In addition to the great deal of outreach work and the creation of the GCR's Public Outreach and Information Offices (POIO), we are learning to maintain a dialogue with the authorities and take part in discussions on different options for resolving problems, which accounts for the majority of our efforts.

One way to get the public involved in the decision-making process is through Citizens Advisory Committees (CACs). The CACs are non-administrative bodies comprised of representatives from social enterprises, administrations and industry designed to provide advice and consultation. CACs are an important element in relieving social tension and funneling social opposition into a dialogue, and getting citizens involved in the decision-making process. The first CAC was created with our support in 1999 in the Shchuch'ye Rayon in the Kurgan Oblast.

The CACs discuss topics related to the construction of CWD facilities, the components of social infrastructures, and other relevant matters. The CACs' decisions are issued as recommendations, but nevertheless have a highly practical significance in the organization of all CWD-related work. At present, there are CACs in the Shchuch'ye Rayon in the Kurgan Oblast, in Kizner and Kambarka in the Udmurt Republic, the Kirov Oblast, the Pochep district of the Bryansk Oblast under the leadership of the Rayon Administrations. Today, one could say that the CACs are the prototype for the social platform at the local level, the heart of civil society.

The annual Dialogue on Russia's progress in meeting its Convention obligations became an important event that facilitated the acceleration of CWD and the formation of positive public opinion concerning government efforts in CWD.

This is a totally new phenomenon in Russia: an open dialogue and consultation among all of the parties to the CWD process at a national level in order to inform the public, relieve unnecessary social tension, and discuss different approaches to resolving CWD-related issues. These meetings are held annually and feature representatives from other countries and members of the Global Partnership.

The next step was to arrange regional dialogues. In October 2006 in Kirov, the first regional dialogue was held. According to the public and the local authorities, the event was very timely and much appreciated. A number of questions were answered, which is very important and useful for helping the public understand the situation as it truly stands, and it is one of the most effective formats for establishing mutual trust and fostering an atmosphere of constructive cooperation.

Practice has shown that all of this work is well received by the population and the local governments, and demonstrates a real effort to form positive public opinion.

With time, public outreach activities have transitioned into an expansive set of measures aimed at establishing mutual understanding across all social strata, increasing civil responsibility and getting residents involved in the decision-making process and in providing feedback.

Today, we can talk about major, fundamental changes in the way people think about CWD. In all of the regions where chemical weapons are stockpiled and destroyed, an understanding has been reached between the local government and the public, and together with the federal center, they are taking the next logical, practical steps towards chemical disarmament. The voices of the opponents of this process have fallen quiet, they have left the open discussions and they are losing ground; they tend to focus on isolated incidents and errors that were made in specific projects, but they do not call into doubt the CWD process as a whole.

Today, the complex task of CWD in Russia is being dealt with together by the public and the authorities at all levels, and this democratic collaboration is laying the foundation for building a civil society.

Ten Years Later: On the Path to Safe Chemical Weapons Destruction in Russia



Valery Demidyuk
Deputy Director General
State Research Institute of Organic Chemistry and
Technology (GosNIIOKhT)

Dear Friends and Colleagues,

Ten years ago, our country ratified the Chemical Weapons Convention (CWC). This action confirmed Russia's dedication to upholding both the spirit and the letter of the Convention by taking on the responsibilities of carrying out all stages of the Convention.

Today it is time to mark the progress we have made in building chemical weapons destruction (CWD) facilities and the two stages completed by Convention deadlines.

In the first stage, 400 tons, or 1% of Russia's stockpiles, were destroyed by April 29, 2003.

In the second stage, 8,000 tons, or 20% of Russia's stockpiles, were destroyed by April 29, 2007. Our country is now working towards completion of the third stage.

It is particularly important to note that Russia's accomplishment of its obligations under the Convention fully complies with the Convention's main requirement: safety during the CWD process. The need for safe and environmentally sound CWD processes requires extensive scientific and practical efforts on the part of experts in a variety of fields: scientists, chemists, doctors, production specialists, engineers, design engineers, economists, lawyers, firefighters, military servicemen and others.

Thanks to the hard work of these professionals over the past several years, Russia has seen the development of a systemic approach to creating CWD facilities. This approach presumes a logical procedure of actions, including specific types of work to be conducted at various stages, both during the construction of a CWD facility and after operations have been launched.

The work to build these facilities can be divided into two categories:

- Work in the preparatory stages of building a CWD facility
- Work in which engineering solutions are applied during construction and completion of the CWD facility.

The following tasks are part of the preparatory stage:

- Selecting the most environmentally sound technologies through competitive bids
- Compiling baseline data for a feasibility study and preparing the design

documentation

- Preparation of health standards and regulations, regulatory documents and methodologies
- Preparation of ways to ensure technical regulation of industrial safety
- A technological safety substantiation to establish the sizes of health protection zones (HPZ) and emergency planning zones (EPZ)
- Substantiation of an official list of worst pollutants that require regular process monitoring and government control
- Preparation of baseline data for a safety monitoring system for the CWD facility.

The second stage involves the actual construction of the facility:

- Modern engineering solutions are applied during construction of the CWD facility, and
- A safety monitoring system is put in place.

Allow me to say a few words about this approach.

As it has already been said, building a CWD facility begins with selecting the technologies that will be used to destroy a certain chemical agent. Russia held competitive bids for alternative technologies in 1993–1994, 1995 and 1998.

In-depth evaluations of the technologies were conducted using Russia's official and scientifically-based methods for the comprehensive assessment of technologies used in CWD.

The key criteria for these technologies were:

- The technology's safety level,
- The fire and explosion hazards of the technological process,
- The technical hazard indicator,
- Overall effectiveness,
- The cost-efficiency of the technology,
- The overall hazard indicator of the technology.

During the first bidding process, Russia selected a technology that facilitated the successful destruction of the entire lewisite stockpiles at facilities in Gornyy and Kambarka.

The 1995 bidding resulted in the selection of a dual-stage technology for the destruction of organophosphorous chemical agents, in addition to two back-up technologies: one for the destruction of chemical agents in munitions and one thermal technology.

The first technology to be used turned out to be the back-up CWD technology designed especially for munitions. Its utilization at the Maradykovsky facility played a decisive role in Russia's completion of the second stage of the CWC.

In the 1998 bidding process, Russia selected technologies for the destruction of mustard agents and mustard-lewisite mixtures. The utilization of selected technologies at the Gorny facility helped Russia complete the first stage of the Convention and destroy Russia's entire mustard stockpile in 2005.

The practice of employing technologies selected through a competitive bidding process at existing facilities and the international recognition of dual-stage technologies confirm that Russia made the correct choices.

All Russian technologies are dual-stage, and provide for faster destruction of chemical agents at the first stage with thorough subsequent processing of the reaction mass that forms as a result. Dual-stage technologies make it possible to completely neutralize the toxic agent and munition casings. In the first stage, the agent is neutralized immediately upon its removal from the munition casing by way of a reaction with a chemical reagent. At this stage one of the key tasks is completed: the chemical agent, under strictly controlled conditions of low-pressure and low-temperature, is irreversibly transformed into a product that can no longer be used for military purposes.

The second stage involves a more thorough treatment of the hydrolysates that result from neutralization.

The selection of technologies via a competitive bidding process has made it possible to begin the next stage.

The creators of these technologies provide baseline data, which is used to prepare a justification of investment, a feasibility study, and design documentation for the future CWD facility.

During the preparation of baseline data, special attention is given to minimizing hazards, which is in large part achieved thanks to the individual processing principle. This principle essentially means that until the chemical agent is removed from an artillery shell and before it is sent to the reactor, the next shell will not be unsealed. Thus the destruction process is conducted with a limited amount of chemical agent, which rules out the development of any uncontrollable emergency situations and greatly reduces risk levels.

Effective hazard reduction is achieved via organizational, engineering, technical and technological solutions, which include:

- Ruling out high temperatures and pressure, which could result in the potential conversion of the chemical agent into a hazardous state;
- The chemical agent is put into a vacuum reactor beneath a layer of a degassing reagent (used at the facility in the village of Gorny) or mixed with a degassing solution in static reactor mixers capable of mixing small quantities rapidly (used at the facilities in Kambarka);
- The CWD process is carried out under a nitrogen blanket, resulting in compounds that are less volatile and less toxic;
- Air pressure is adjusted at the premise (10mm H₂O difference between Group 1 and Group 2 facilities, and 5mm H₂O difference between Group 2 and 3 facilities);

- Multi-stage systems are used to clean ventilation emissions, including devices with solid sorbents and contact reactors; off-gases are cleaned in two stages: through absorbent filters with capacity of 300 m³/h and in activated carbon adsorbers, and then in contact reactors;
- All cleaning systems have both an operating and a back-up apparatus, which catch pollutants when the main cleaning devices are changed, ensuring continuous exhaust purification;
- Filtered wastewater is reused, allowing the CWD process to run using a water recirculation system;
- In order to protect the facility workers, individual means of protecting the lungs and skin are used.

Over 30 engineering, technical and technological methods are used to minimize hazards during construction of CWD facilities.

Opportunities to apply state-of-the-art engineering, technical, technological and other solutions are considered when preparing feasibility studies and design documentation.

In addition to a government representative who coordinates the work of all of the participants in the process, design firms and companies that prepare baseline data also participate at this stage.

Meanwhile, work is underway to develop health and sanitary regulations and rules, regulatory documents and methodologies. These documents govern the process of government public health and epidemiological monitoring, environmental, health and chemical monitoring. Ways to conduct medical health monitoring for the population are being developed, as are sanitary, hygienic and environmental safety standards that set out procedures for the stockpiling and destruction of chemical weapons (CW). In particular, sanitary and hygienic standards have been prepared for all types of chemical agents; their maximum allowable concentration (MAC), maximum permissible levels, etc., have been calculated.

The next stage will be the development of technical regulations for process safety.

This stage includes the preparation of a regulatory methodological base for analytical laboratories. This involves the design, assessment of measurement guidelines, certification and conversion and implementation of methods used to measure chemical agent content and the by-products of their destruction and concomitant controlled hazardous substances in a variety of mediums (poisonous substances, reaction masses, air, water, soil, equipment surfaces, structural units, etc.). The creation of metrological standards is also in progress. Work is underway to develop, certify and prepare batches of government control samples for shipment to the CWD facilities.

Furthermore, work is in progress to design, create, test, calibrate and certify automated gas sensors, including devices for air quality monitoring.

After preparing and approving the feasibility study, work will be carried out to establish a documentation base for CWD facility construction. This includes:

- Scientific substantiation of technological safety in order to establish the health code for each CWD facility and then determine the sizes of HPZ and EPZ
- Substantiation of the official list of worst pollutants (for each facility)
- Preparation of baseline data (for materials approved in the feasibility study) in order to create a process safety monitoring system.

Substantiation of technological safety and scientifically-based hazard classification of designed facilities help determine the sizes of HPZ and EPZ.

In keeping with health regulations and the aforementioned scientific substantiation, all CWD facilities are categorized as Class 1 hazards. In line with a decision made by Russia's Chief Sanitary Inspector for facilities in Gorny and Mirny (the Maradykovsky facility), a two-kilometer HPZ has been defined, and a one-kilometer HPZ has been defined for Kambarka (based on experience gained at the Gorny facility).

The sizes of EPZ for each CWD facility are determined by decree of the Russian Government. For example, Decree No. 52 (January 21, 2000) stipulates that the area "... of the EPZ surrounding the facilities complex for the stockpiling and destruction of CW in Gorny, the Saratov Oblast" is to measure 77.23 km². The list of villages within the EPZ include: Gorny, Oktyabrsky, Mikhailovsky-4 and Bolshaya Sakma. An EPZ has also been approved for the following facilities:

- The village of Kizner in the Udmurt Republic — 510 km², encompassing 32 villages (Decree No. 329, April 12, 2000)
- The town of Kambarka in the Udmurt Republic — 87 km², encompassing 3 villages (Decree No. 330, April 12, 2000)
- The town of Shchuch'ye in the Kurgan Oblast — 445 km², encompassing 16 villages (Decree No. 523, July 14, 2000)
- The town of Pochep in the Bryansk Oblast — 1,048 km², encompassing 132 villages (Decree No. 16, January 15, 2004).

Planning and enforcing process safety control and government monitoring over CWD facility operations is based on the official list of worst pollutants.

The territory of the CWD facility and surrounding areas (HPZ and EPZ) are classified as Category 2 observation areas. They undergo regular, full monitoring (in line with an approved schedule) to determine the amount of worst pollutants in the air. Worst pollutants are to be controlled by a process safety monitoring system and federal environmental monitoring.

The list of worst pollutants was compiled with attention to required and actual air consumption, and the cumulative impact of hazardous pollutants on the human body. Additionally, the maximum allowed surface concentration is calculated for each possible toxic pollutant that is formed during normal, full-scale agent destruction operations at the facility.

The list also includes chemical agents that must be destroyed at every specific facility: inorganic arsenic, sulfur and phosphate compounds contained in reaction masses, as well as common industrial pollutants (sulfur dioxide, carbon monoxide, nitrogen dioxide, dust, and hydrocarbons).

A list of the worst pollutants was compiled for the facilities in Gorny, Kambarka and Mirny (Maradykovsky). These lists are used as a basis for exercising full process safety control and government monitoring.

The next stage is the preparation of baseline data for creating a process safety control system.

In accordance with Russia's public health regulations, safety control at CWD facilities consists of two main components: the facility's own on-site process safety monitoring system and government oversight through its monitoring agencies. The process safety monitoring system is meant to monitor and ensure normal working conditions for facility staff members and the population of surrounding areas. It also must include environmental safety and production control, environmental and health monitoring. Monitoring must be applied to work zones, ventilation (industrial) emissions and the industrial site:

- The work zone features air control (continuous, using automatic devices and periodic sampling), as well as periodical control of equipment surface sanitation and continuous monitoring of equipment leaks;
- Air in ventilation (industrial) emissions is monitored for pollutant content (continuous, using sensors and periodic sampling);
- The industrial site's air is monitored daily by taking air samples and conducting a quantitative analysis of samples at the facility's fixed-site laboratory.

Environmental monitoring is conducted at HPZ and EPZ, including monitoring of the air, water, soil, flora and fauna. Monitoring is carried out in line with approved schedules at on-site observation posts and at movable posts along routes and in vehicles. Samples are analyzed at fixed-site laboratories at the facility. Government monitoring agencies, together with facility staff, conduct regular quantitative evaluations of the conditions at the work zone, ventilation (industrial) emissions and the industrial site, and periodically monitor HPZ and EPZ.

The health of both facility staff members and the residents of surrounding areas is monitored. Medical examinations of staff members are conducted daily and local residents are examined periodically.

The following tasks are completed as part of the preparation of baseline data for designing the process safety monitoring system at CWD facilities:

- Justification for workstations in the work zone;
- Validation and design of maps plotting the location of work zone air quality sensors;
- Validation and design of maps plotting the locations of sensors for rapid, continuous monitoring of leaks in equipment, pipes, flanged connections, etc.;
- Validation and design of maps plotting the location of ventilation emission sensors;
- Validation and design of maps plotting the location of on-site air sampling posts and on-site analysis posts for sampling directly in work zones in hazard

Group 1 and 2 facilities that require scheduled sampling;

- Validation and design of a schedule for health and hygiene monitoring in work zones via air samples (at workstations, from ventilation emissions, at the industrial site) and a schedule for taking wipe samples from surfaces for subsequent analysis at the facility's fixed-site laboratories;
- Design of common maps plotting the location of on-site equipment used in monitoring process safety that are the basis for creating a process safety monitoring system during the assembly of the CWD facilities.

These efforts will complete the preparatory stages and mark the start of the facility's construction.

The construction effort will involve companies in construction, design and other fields, as well as baseline data developers and government representatives, who will oversee the coordination of the efforts of all of the participants in this stage.

This period will see the application of modern engineering solutions during construction.

Plans include the creation of a chemical analysis monitoring system for CW stockpiles and CWD, in addition to the creation and certification of a common network comprised of: fixed-site analysis laboratories, monitoring posts, movable laboratories, process safety control labs, facility laboratories, environmental monitoring laboratories, industrial health labs on-site at the facility, laboratories at regional centers of environmental monitoring, and specialized operations monitoring labs. This stage will see the completion of ways to ensure technical regulation of industrial safety, and the adjustment of emergency response systems and services, guaranteeing the safety and defense of facilities, fire safety, civil defense measures and emergency response measures, to the presence of CWD operations.

The final stage of CWD facility construction is to establish a working process safety monitoring system.

The process safety monitoring system is organized using maps that plot the locations of on-site devices, technical equipment and the actions carried out by service personnel. When determining the placement of on-site, work zone air quality monitoring sensors, consideration is given to the location of downdrops from forced-air and exhaust ventilation in production facilities and the direction of air flows around pieces of equipment. Leak sensors are installed in places where air flows going past the most dangerous equipment converge.

Furthermore, detector covers (paint) are placed on the most hazardous (in terms of potential leakage) sections of the equipment. Detector paints are developed by experts at the State Research Institute of Organic Chemistry and Technology for all types of chemical agents.

In order to monitor the maximum allowed concentration in air ducts, two sampling probes are set up: one is connected to a continuously running health and hygiene monitor, while the other is meant for the periodic sample of ventilation emissions for later analysis at the facility's fixed-site laboratory.

Stationary air sampling posts are placed: in work zones, in the areas near air duct

sampling probes, and in all other areas that require periodic air samples, as are stationary analysis posts for conducting analyses on-site in work zones in spaces categorized as hazard Groups 1 and 2. Actual data (the time and frequency of samples) are adjusted by a health monitoring schedule in work zones (at workstations, from ventilation emissions, on the industrial site) and wipe samples from surfaces for later analysis at the facility's fixed-site laboratories. Adjusted schedules are to be agreed with the facility's service under the Federal Medical- Biological Agency.

The process safety monitoring system was first used at the pilot CWD facility in Gorny (the Saratov Oblast). At present, this system is also in use at two facilities: in Kambarka (the Udmurt Republic) and in Mirny (the Kirov Oblast).

A total of 67 automatic air and ventilation emission monitoring devices have been installed at the Gorny facility, in addition to 90 stationary posts for taking air and ventilation samples. Over three years of operations, more than 100,000 samples have been analyzed for mustard gas and lewisite.

The process safety monitoring system at the Kambarka facility includes 48 stationary automatic devices for continuous health and hygiene monitoring of air mediums and ventilation emissions and 118 stationary automatic sampling probes for continuous equipment leak monitoring. The system is supported by 140 stationary posts for taking air and ventilation samples and 17 stationary posts for conducting analyses on-site in work zones. Since launching the facility, over 80,000 samples have been analyzed for lewisite.

For the first processing line of the Maradykovsky facility in Mirny, the process safety monitoring system includes 31 stationary automatic air and ventilation emissions monitoring devices, 29 stationary posts for air and ventilation sampling, and 11 stationary stations for conducting on-site analyses in work zones. In one year of operations, the facility has analyzed over 35,000 samples.

The systemic approach that we have reviewed ensures that CWD facilities fully comply with the Convention's key requirement: safety in destroying Russia's stockpiles of CW.

Over the ten years since its ratification of the Convention, Russia has proved to be a reliable partner in fulfilling its international obligations by destroying its CW stockpiles by the Convention's deadlines.

The Federal Medical-Biological Agency and Medical and Health Support in the Chemical Weapons Destruction Process in Russia: Accomplishments in 2005-2006



*Nikolai Golovchenko, Director
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Ensuring the safety of operations at chemical weapons destruction (CWD) facilities is one of the most important tasks of the sanitary and epidemiological service of the Federal Medical-Biological Agency (FMBA), preventative medical treatment institutions and scientific research institutes with years of experience in providing medical and health support for former facilities producing chemical agents. To a large extent, this has allowed us to apply the experience we accumulated in developing the key public health principles for ensuring safe operations at CWD facilities. First and foremost, we dealt with the priority medical and hygienic requirements in relation to what was going to be technically and economically possible. We also took measures to ensure safe labor conditions and to prevent the facility operations from having a harmful effect on the health of facility workers, the local residents, and the surrounding environment. Furthermore, we applied state-of-the-art scientific developments in medical and hygiene as related to CWD.

In 2005-2006, FMBA developed and registered with the Russian Ministry of Justice twelve hygiene standards that were then put into force by the Chief Sanitary Inspector. These standards concern blister agents and organophosphorous compounds and set out the guidelines for the allowable content of chemical agents on-site at facilities in industrial zones, and in the environment. They also provide guidelines for analytical methods for monitoring chemical agents. These guidelines include: emergency maximum exposure limit values of 20 parts per billion (ppb) for air in residential areas and 3 ppb for air in facility work zones. Furthermore, eleven new methodological instructions for monitoring chemical agents composed of organophosphorous compounds have been approved and certified by the Russian State Standards Committee.

A draft of a set of instructions on methods for defining health protection zones (HPZ) at chemical weapons destruction facilities has been prepared and submitted to the State Agency for Health and Consumer Rights for review and subsequent approval by Russia's Chief Sanitary Inspector.

Work is nearly complete on the preparation of official hygiene requirements for stationing, designing, constructing and operating CWD facilities, renovating buildings and structures and operating CW storage facilities.

Methods for diagnosing chemical agent intoxication have been developed after undergoing medical testing. These methods will be used to conduct professional

sampling and assessment of the health conditions of CWD workers and the people who live in emergency planning zones (EPZ) surrounding CWD facilities (pupillometry, laser correlation spectroscopy, measurement of cholinesterase activity, immunological assessment of the prevalence of sensitivity to organophosphorous compounds, etc.). We will use this data to start compiling databases of biological markers for diagnosing potential organophosphorous compound intoxication.

New antidotes to exposure to organophosphorous agents, superior to available foreign treatments, have been created and are currently being used. These include the multipurpose antidote Pelixim, the Carboxim acetylcholinesterase reactivator, and P-10M, a preventative antidote.

Work is continuing on creating a unified medical monitoring system for the storage, transport and destruction of CW, as well as an automated personnel tracking system for CWD facility staff and residents who live and work in the EPZ of the CWD facility.

Work is also underway on a unified registry of CWD workers; this registry will be an integral part of a larger unified registry of all CWD workers and the population living and working in EPZs surrounding CW storage and destruction facilities.

The application of unified health monitoring methods at diagnostic and consultation clinics is of utmost importance for obtaining valid conclusions regarding the impact of CW storage and destruction facilities on human health. With this goal in mind, FMBA has developed temporary methodological recommendations for monitoring citizens who live and work in EPZs surrounding CW storage and destruction facilities. These recommendations have been agreed upon by regional healthcare bodies and approved as a temporary set of regulations.

The FMBA is also conducting state sanitary and epidemiological monitoring over the design, construction and launch of CWD facilities. In 2005-2006, a sanitary and epidemiological inspection of roughly 30 different construction materials was conducted. Special attention was paid to ensuring safe labor conditions at the planned CWD facilities and protecting the environment.

The FMBA and its territorial divisions and institutions monitor and ensure compliance with sanitary legislation during the construction process, and during CWD facility operations.

Medical and Sanitary Assistance at Operating CWD Facilities in Gorny, Kambarka and Maradykovsky

An industrial and sanitary lab has been set up and equipped with all required equipment at the CWD facility in Gorny in the Saratov Oblast. The laboratory will operate under the Federal Healthcare Center for Hygiene and Epidemiology No. 49 of the FMBA, and was built with facility construction funds. This laboratory, in addition to an industrial laboratory and an environmental monitoring laboratory at the CWD facility, carries out regular laboratory-based monitoring of air quality in the work zone, the surfaces of industrial premises and equipment, industrial wastewater, ventilation emissions, and air quality at the industrial premises within the EPZ. In total, over 180,000 tests have been conducted inside and outside of the facility and over 12,000 were conducted by the industrial and sanitary laboratory. Pollution of the industrial

environment by harmful chemical substances, including chemical agents, with values slightly over hygiene standards, is registered in isolated cases.

In December 2005, FMBA put the CWD facility in Kambarka (the Udmurt Republic) into operation. Before the laboratory began working, the FMBA's Center for Sanitary and Epidemiological Monitoring No. 41 examined the water, soil and flora for heavy metals and arsenic, identifying the baseline content of toxic elements in the environment. Over the period beginning from the launch of operations at the CWD facility in Kambarka, all of the laboratories involved (the industrial and sanitary laboratory, the industrial laboratory and the environmental monitoring laboratory) have conducted over 30,000 tests inside and outside of the facility, and the industrial and sanitary laboratory has conducted roughly 2,000. We did not find chemical agent content values exceeding hygiene standards in the air in the work zone. There were five isolated incidents of pollution by the primary product on the floor of the room where protective gear is removed. An investigation was conducted to identify the reasons for this pollution. This investigation was conducted with a FMBA representative, and as a result, measures were taken to reinforce compliance with sanitary regulations applicable to the CWD process.

During operations at the CWD facility in Maradykovsky (the Kirov Oblast) (operations were launched on August 19, 2006), the aforementioned laboratories conducted over 5,000 tests inside and outside of the facility. Isolated incidents were registered of pollutants on equipment surfaces.

The medical assistance system for CWD workers includes daily medical monitoring for workers and medical care as close to production sites as possible; CWD facilities feature medical stations (factory clinics) meant to carry out preventative treatment aimed at staving off occupational illnesses, reducing overall morbidity rates, including sick leave, monitoring employee health at CWD facilities and providing first aid in emergencies (first responder, general practitioner and advanced medical care).

Once operations are launched at CWD facilities, all employees whose jobs include working under Group 1 and Group 2 hazardous conditions are checked before and after their shifts. Check-ups after shifts have shown that no symptoms of harmful effects from chemical agent have been found.

Since 2006, we have provided medical safety support to destruction operations of the chemical agent production facility (the Shikhany Federal State Scientific Research Institute for Organic Chemistry and Technology) and disposal of the by-products of facility operations. We issued proposals for ensuring safe labor conditions during these operations. Design documentation is currently being reviewed.

Studying the health of people who live in EPZs and comprehensive medical monitoring of the territories surrounding CW storage and destruction facilities play a major role in the system of actions taken toward ensuring the safety of the CWD process. These functions are performed by scientific and preventative medical treatment institutions under the FMBA, together with healthcare institutions and organizations in regions affected by CWD. Furthermore, the health of the children in these areas is also monitored and studied by specialists at the FMBA's Children's Clinical Hospital No. 38 (Moscow).

Considering the high levels of biological activity of destroyed chemical substances, health monitoring is seen as mandatory for those living in EPZs.

In 2004-2005 in Shchuch'ye in the Kurgan Oblast, the Scientific Research Institute for Human Hygiene, Occupational Pathology and Ecology conducted comprehensive medical monitoring of a representative sample of the population living and working in the EPZ surrounding the CW storage facility and the CWD facility. Express diagnostics methods were used to monitor for organophosphorous compounds. Analyses of the illnesses experienced by the EPZ residents over the previous five years based on original medical documents and an assessment of the demographic situation based on birth and death rates over the previous 20 years in both Rayons. A reproductive health study was also conducted using different indicators in the EPZ and using a control population in a different Rayon.

The health study of the representative sample of the EPZ residents showed that overall, health problems experienced by residents are related to age and gender and poor living conditions; the overall morbidity level of the working age population in the Kurtamysky Rayon (the control population), is higher than that among EPZ residents and has been so over the span of years examined.

The collection of background health indicators was done using pupillometry, laser correlation spectroscopy, measurement of cholinesterase activity, and immunological assessment of the prevalence of sensitivity to organophosphorous compounds has allowed us to begin the formation of a database of biological markers for diagnosing potential intoxication by these substances in people living in the Shchuch'ye EPZ. Subsequent observation of these indicators will help us identify their dynamics. Similar studies are being conducted at the EPZ of other CWD facilities.

The results have shown that the key environmental factors that are having a negative impact on human health are: air pollution due to emissions from industrial facilities, boilers, and motor vehicle transport; poor quality water supply, soil polluted by pesticides and other toxic chemicals, and poor living conditions.

Considering that the bulk of health and sanitary remediation efforts for potential accidents at CWD facilities at the early stages of an emergency will be led by the regional healthcare institutions, the FMBA is devoting a great deal of attention to making sure that all healthcare institutions are well prepared to act in emergencies.

This is achieved via targeted training of medical staff at the FMBA's Professional Development Institute and ensuring that institutions are fully stocked with antidotes and other medical supplies, as well as developing plans for emergencies, holding scheduled training and seminars to practice the coordination of an emergency response. A clinical toxicology course has also been organized by the occupational pathology department.

In 2005-2007 eight emergency response simulations were conducted at CW storage and destruction facilities in Gorny (the Saratov Oblast), Maradykovsky (the Kirov Oblast), Kambarka (the Udmurt Republic), Leonidovka (the Penza Oblast) and Pochev (the Bryansk Oblast). The feasibility and efficiency of using incremental response and resources surges at the disaster site were examined in realistic conditions. As a result of these studies, additional measures were taken to streamline the work performed by the institutions providing health and sanitary assistance at these facilities.

Specialists at the FMBA's Toxicology Center have made 20 trips to facilities providing medical support to CWD processes in order to offer practical assistance and to develop emergency response guidelines. At present, the following sets of instructions developed by the center's staff are undergoing final revision and approval:

- Medical response measures for emergency situations at facilities used for the storage and destruction of chemical weapons;
- Triage in the event of mass chemical exposure;
- Providing treatment for combined injuries in emergencies at especially hazardous CW facilities.

In line with official order No. 24 issued by FMBA on September 9, 2007, the management of central and regional health and sanitary units, regional offices and centers for hygiene and epidemiology began holding regular meetings in order to discuss the details of coordinating medical institutions' activities with due consideration for the location and operations of each CWD facility.

Spotlight on Kambarka



Valery Malyshev
***Deputy Head, Agency for Problems of the Convention,
Ministry of Construction, Architecture and
Housing Policies of the Udmurt Republic***

Dear Mr. Baranovsky and Dialogue participants!

On March 1, 2006, in the Kambarka Rayon of the Udmurt Republic, an industrial chemical weapons destruction (CWD) facility was put into operation. This facility was built to destroy the 6,400-ton lewisite stockpiles that have been stored here since the post-war years of the past century.

Having achieved its planned operational capacity, the facility has destroyed over 4,300 tons of lewisite as of October 23, or 67% of the stockpiles of this chemical agent. Ever since this facility began operating and before it suspended operations for routine maintenance in May 2007, the facility's equipment functioned without a hitch, and none of the workers at the facility experienced any major problems. Both the equipment produced domestically and that granted pro bono by our German partners performed reliably and precisely. We also must acknowledge the enormous contribution of the facility's highly-qualified staff, including the residents of the Kambarka Rayon who work there.

Government control and monitoring to ensure compliance with environmental safety requirements at the facility is carried out by the department of the Russian Federal Service for Environmental, Technological, and Nuclear Oversight in the Udmurt Republic.

A group of international inspectors from the Organization for the Prohibition of Chemical Weapons (OPCW) remains on-site at the facility at all times. The inspectors oversee the entire lewisite-destruction progress, starting from its arrival from the storage facilities at the detoxification module (where the main process takes place), until dry salts are produced (the by-product of dehydrating reaction masses (hydrolysates)) and put into specialized packaging before sending them for further processing at the Gorny CWD facility in the Saratov Oblast.

The results of an industrial environmental control and monitoring analysis and state environmental monitoring show that, since the facility has been up and running, there have been no violations of environmental quality standards in the health protection zone (HPZ) or the emergency planning zone (EPZ) surrounding the CWD facility. This demonstrates the safety of the CWD process.

The day when the residents of Kambarka will no longer have to share their home with chemical weapons is not so very far away.

When operations at the CWD facility are ceased, some of the buildings and

structures in the complex will be retained, in addition to the facility's modern industrial infrastructure. This will help arrange for the manufacturing of new products that cannot be used for military purposes and that enjoy demand on today's market. In order to do so, we need to assess all possible engineering solutions, the volume of funds required to convert the facility, identify and search out sources of financing, among many other things. The Republic and the city have a vested interest in making this happen. Competitive bidding will be announced for project proposals on facility conversion. The proposals will be prepared by the Government of the Udmurt Republic and approved by the Government of Russia and the Federal Agency on Industry. It will be a business-venture at that point, and the opinions of the local residents and communities in the city must also be taken into consideration.

It has to be said that the construction of the CWD facility in Kambarka over the past five years has changed the lives of the local residents. The city now has natural gas; problems with clean water supply from the Kambarka pond are being resolved; reliable heating has appeared; and the completion of a sewage system is underway. Problems concerning power supply have been resolved, and a communications network and a security alarm system have been put into place.

The newly constructed engineering infrastructure built thanks to the CWD program provides more opportunity for city development, including for small and middle-sized enterprises (SMEs) and industrial companies, whose main goal is to produce competitive products and create new jobs.

The federal government has launched new facilities that were recently merely placeholders on the official map of the city of Kambarka, which was designed and approved in 2000 — a 50-space parking lot, a first aid station, a bathhouse that can accommodate 48 guests, a laundromat, and others. The city's housing surface area has increased by 13,000 m². New roads have been built, and old roads are being repaired.

Of course, the city and the district would like more, but each year the cost of new construction increases while the capital investments limit that was previously approved by the Government of Russia has not changed. That is why the list of previously intended projects approved by the Government of the Udmurt Republic does not include vitally important facilities for environmental conservation: a municipal space for household waste and the remediation and maintenance of the Kambarka pond, which is the city's only source of water supply. For these projects, the government has only conducted survey work and feasibility studies, and they are still in the design stage. The Udmurt Republic, having seen the agreed design documentation, is looking for other sources of financing for these projects.

A serious problem today is the uncertainty about how the government plans to transfer ownership of the facilities that were built and put into operation over to the city. It is known that the Government of Russia adopted Decree No. 374 on June 13, 2006 on a list of documents required for making related decisions. However, the paperwork process for the transfer of ownership rights is still in the initial stages, and the Rayon Administration is constantly left asking who owns the facility, and who should bear the costs of the facility's operations.

I especially want to make note of the targeted, energetic work carried out by Green Cross Russia and its regional Public Outreach and Information Offices (POIOs)

in maintaining a dialogue with the community, as well as the Public Relations Groups created by the government at military units, the Citizens Advisory Commissions created at Rayon Administrations in areas affected by CWD, and the efforts of these bodies in forming positive opinions about chemical disarmament among their respective communities. Despite the safe operation of the CWD facility, the public response among city residents has varied. Most of their questions concern the unfinished construction of facilities (gas supply networks, water supply, road construction, and medical institutions). As practice has shown, holding regular meetings between the public and all of the participants in the process involved in resolving problems connected with the chemical disarmament program is the only way to achieve any positive results, and it periodically relieves the growing concerns of the communities affected by CWD.

Thank you!

The System of Public Outreach and Social Organizations on Implementing Key Components of the Federal Target Program for Chemical Weapons Destruction in the Kirov Oblast



Mikhail Manin
Head of the Chemical Weapons Convention Department
Government of the Kirov Oblast

One of the tasks defined by the Federal Target Program (FTP) for Chemical Weapons Destruction in the Russian Federation is providing information to the public and social organizations on the implementation of key elements of the FTP. Providing information to and educating the population on the safe storage and destruction of chemical weapons (CW) includes the following:

- Providing clarification of the Russian government's policy on chemical disarmament to the signatories to the Chemical Weapons Convention (CWC), the international community and the Russian public;
- Informing citizens and social organizations about issues concerning safety and environmental protection during the processes of storing and destroying CW;
- Informing citizens and social organizations about the selection of chemical weapons destruction (CWD) technologies, the design and construction of CWD facilities, and the development of social infrastructures in the areas where CWD facilities are built;
- Educating citizens and social organizations about health, hygiene and anti-epidemic measures as well as preventative medical measures;
- Informing citizens and the Russian public through mass media, as well as through holding public hearings, publishing topic-specific issues of science journals, and booklets on matters concerning chemical disarmament, organizing meetings, conferences, seminars, symposiums and using other ways to disseminate information.

Creating a public outreach system for the CWD process presumes the organization of this process at the federal, regional and municipal levels. In the Kirov Oblast, the federal level is represented by *Rossiiskaya Gazeta*, which won a competitive bid to organize and conduct public outreach in this field, and has since set up an information system both on the federal and regional levels. The regional level is also represented by the creation of Regional Information Centers (RICs) that are hosted by the regional centers of government environmental control and monitoring. The municipal level is represented by Public Relations Groups (PRGs) that work with the public and are hosted by Military Units.

Military Unit #1205 has organized a PRG that services the village of Mirny in

the Orichevsky Rayon and the town of Kotel'nich (Vladimir Fyodorov is the PRG's Director).

Public outreach on CWD in the region is carried out by social organizations, such as Green Cross Russia (GCR), in Kirov and Mirny. The Oblast Government is grateful to GCR's Public Outreach and Information Office (POIO) not only for the work it has contributed in public outreach on CWD, but also for organizing a summer camp for the children who live in the emergency planning zone (EPZ) near CWD facilities.

The Key Objectives of a Regional Information System include creating a system where opinions, views and positions can be exchanged freely among all interested parties in the region about issues concerning the storage and destruction of chemical weapons. Another important goal is relieving social tension stemming from these topics by providing the population, social enterprises and the media with complete, timely information about the process of the FTP in the region as it develops.

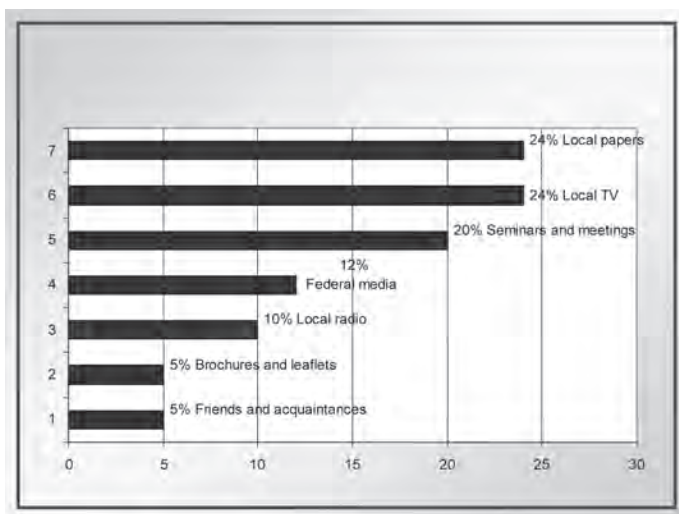
Outreach efforts include:

1. Regular monitoring of the public opinion by analyzing publications in the media (Oblast and municipal media outlets), letters addressed to the Oblast Government and appeals from citizens.
2. Preparation and distribution of materials in Oblast and Rayon print media (newspapers such as *Kotel'nicheskyy Vestnik* and *Iskra*) and publication on the Oblast Government's website (see: Figure 1).
3. Releasing and circulating leaflets, brochures and booklets.
4. Organizing press conferences, briefings, roundtable discussions, seminars on topics related to the storage and destruction of CW for different groups in the population.
5. Conducting public hearings on a number of subjects relating to ensuring safety during the storage and destruction of CW in the Oblast.
6. Organizing consultations for the public on all questions that may arise, answering correspondence and responding to complaints and appeals.

Since public outreach efforts began for CWD, we have accumulated a great deal of valuable experience:

- Organizing visiting meetings with the Oblast Government and meetings with representatives of the Oblast and Rayon media outlets. These meetings included a field trip to the CWD facility and, most importantly, with a demonstration of how the facilities and facility staff work with chemical agent munitions.
- Organizing press conferences and video conferences with the directors of the Federal Department for the Safe Storage and Destruction of CW. These events were attended by Nikolai Shaklein, the Oblast Governor, and Valery Kapashin, the Director of the Department.
- Arranging visits to the Maradykovsky CWD facility by deputies from different levels of government (the Oblast Legislative Council, the Orichevsky and Kotel'nich Rayon and Municipal Dumas) and representatives of rural settlements located within the EPZ.

- Holding regular press conferences with representatives from a variety of organizations involved in the oversight and monitoring of CWD facility operations;
- Organizing and holding meetings with the public and social enterprises.



*Figure 1. Poll Response to the question:
How would you like to receive information about CWD-related matters?*

At the same time, having gained a great deal of positive experience in public outreach efforts, we believe that there are some flaws in the organization of this system. In particular, the lack of coordination among the structures involved, and the unwillingness demonstrated by some of their representatives to work with the Oblast Government on reaching a preliminary agreement on planned work, deadlines, and acting on these plans. This works to the detriment of the quality of the actions that are taken in terms of the specialists that get involved in events, the information that is published, deadlines, etc.

Another weakness is the repetitiveness of the events that are held, which also reflects upon the quality and effectiveness in working with the public. A third weakness is the lack of clarity and consistency when it comes to distributing published materials (brochures, leaflets). For example, they do not all end up at the libraries in Kirov, the Oblast, or the Rayons, despite the fact that there is a good deal of interest in those.

I am not going to address every form of information support used in public outreach efforts, but I will point out since work began under the FTP in the Oblast and since information and explanations have been made available to the public, there have been significant changes in the public opinion on CWD (see: Figures 2 and 3).

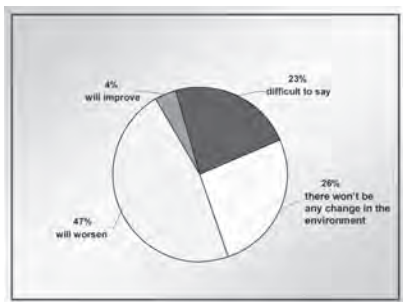


Figure 2. Poll: How do you think the environment will change after the facility is constructed?

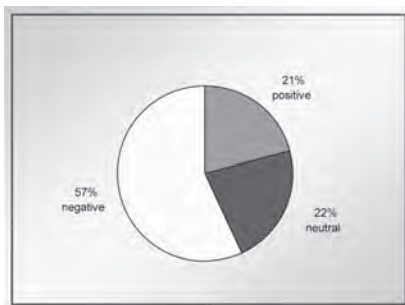


Figure 3. Poll: How do you feel about the construction of a CWD facility?

Previously, when the FTP was just starting, the public had a strongly negative reaction to it. Today, however, the Oblast residents have a stronger understanding of the need for the CWD process. Nonetheless, some citizens — residents of Kirov as well as the Orichevsky and Kotel'nich Rayons — still harbor some concerns about the fact that the Maradykovsky facility will be used to dispose of CW waste transported from other regions of Russia, and even from abroad. We believe it is crucial that the residents of Kirov and the Oblast be informed of the prohibition of transporting chemical weapons to other regions, and they should be told about the construction of facilities and results of CWD operations in other countries and Russian regions.

The results of the studies that have been carried out, including by GCR, show that the Oblast's residents still worry about the safety of the CWD process with regard to the environment and their health. Along those lines, I would like to emphasize the importance of widely distributing information about the technologies and methods that are selected to ensure safety, as well as the results of environmental and health monitoring.

The Oblast's Government believes that in order to give the Oblast residents a sense of security against the backdrop of the CWD process, and to dissolve their worries concerning safety, it would be best to develop stronger ties with the other participants in CWD public outreach efforts.

Pediatric Health and Medical Monitoring in Areas in Close Proximity to Facilities for the Storage and Destruction of Chemical Weapons

Victor Golodenko

**Head Doctor at Children's Clinical Hospital (CCH) No. 38 under
the Center for Environmental Pediatrics of the Russian Federal
Medical Biological Agency (FMBA)**

Ms. Shirokova

**Assistant Head Doctor of CCH No. 38,
Senior FMBA Pediatrics Expert**



Mr. Zokirov

Head of the Pediatrics Dept. at CCH No. 38

Mr. Rusnak

Head of the Nephrology Dept. at CCH No. 38

Mr. Fitin

Head of the Research Laboratory at CCH No. 38

In accordance with the federal law on chemical weapons destruction, we are carrying out a comprehensive assessment of the health of children living in emergency planning zones (EPZs). Article 13 of this law sets out the key health requirements for citizens living and working in EPZs; they must undergo clinical diagnostic examinations and consultation.

These examinations may be limited to consultations with doctors and examining people at diagnostics centers as attached to local medical treatment institutions. We recruit specialists from scientific research institutions, medical centers, laboratories and specialized treatment facilities, including from our own Children's Clinical Hospital (CCH) No. 38, which is a Federal State Healthcare Institution run under the Center for Environmental Pediatrics. We recruit these personnel in an effort to:

1. Identify illnesses in their early stages.
2. Conduct examinations in order to establish a connection between an illness and the operations of facilities used to store or destroy chemical weapons (CW).

Finding solutions to these problems is only possible with targeted epidemiological tests based on preliminary hypotheses about the potential pathogenic impact of specific factors, when measurements are taken of toxic substances found in the environment surrounding these facilities, when studies are done to determine the toxicity levels, and after specialized comprehensive medical examinations are conducted on the residents of the region (see Figure 1).

A potential cause-and-effect connection between illnesses and the actions of a specific pathogenic factor can be proven only based on the results of epidemiological studies, which require the coordination of the efforts of everyone involved in the process. Conducting examinations in order to establish a link between an illness and the

operations of a facility used to store, transport and/or destroy CW presumes:

- An extensive instrumental examination of the quality of children's and teenagers' living environments in each village of the EPZ (the scope and detail of these examinations is determined both by a list of regional sources of pathogenic factors, as well as a list of pathogenic factors emitted from other sources that are present in the environment);
- Specialized clinical and laboratory examinations of a representative sample of children and teenagers;
- An analysis of the results of clinical laboratory examinations of children;
- Conclusive epidemiological research establishing the impact of harmful factors on pediatric health.

These factors will help convincingly confirm or exclude the presence of a cause-effect relationship between the operations of these facilities and pediatric illnesses.

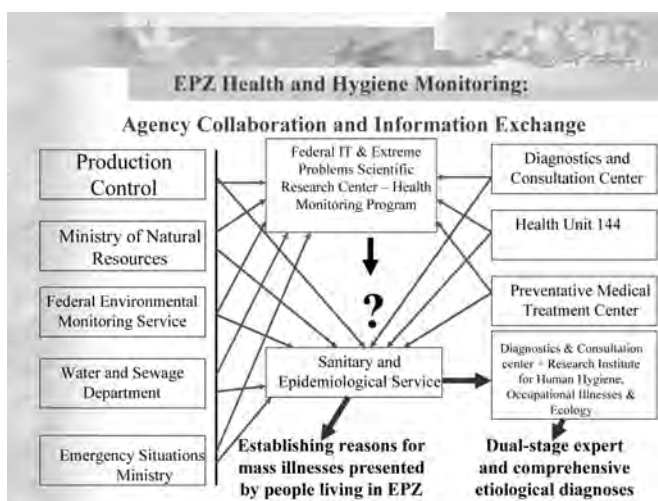


Figure 1. Agencies and Departments That Are Part of the Official Hygiene Monitoring System Within the EPZ and that Deal With International Partners and Exchange of Information

The volume of the work conducted at CCH No. 38 in 2002-2007 under the CWD medical assistance program is shown in Tables 1 and 2. The total number of children and teenagers examined in the EPZ is 9,264. Comprehensive clinical and laboratory tests were conducted on 1,396 children ages five through 18, including 963 children from the Orichevsky Rayon and 433 children from the Kotelnichi Rayon living in the EPZ for the Maradykovsky CWD facility. Our visiting staff included specialists from CCH No.38 and from Oblast and Rayon healthcare institutions.

The following tests were conducted:

- Biochemical blood screening: 413 subjects;
- Respiratory function check-up: 307 subjects;
- EKGs: 1,244 subjects;
- Ultrasounds of the abdominal cavity, kidneys and thyroid glands: 648 subjects;
- Electromyographical studies: 179 subjects.

Facility	Number of villages in the EPZ	Number of children and teenagers	Number of visits to the area	Number of patients examined by visiting staff	Number of visits by groups of children to CCH No. 38	Number of patients examined by on-site staff
Kambarka	3	3,485	3	1,094	5 + 1	139 + 30
Kizner	32	2,100	2 + 1	1,129 + 441	2 + 2	50 + 54
Maradykovsky	197	7,680	3 + 1	1,396 + 276	3 + 2	90 + 81
Pochep	131	6,846	3 + 2	566 + 333	1 + 3	33 + 94
Leonidovka	13	1,018	3	840	0 + 2	0 + 32
Shchuch'ye	15	3,869	6	2,396	7 + 1	170 + 20
TOTAL	391	28,905	24	8,471	29	793

Table 1. Work Conducted at CCH No. 38 in 2002–2007.

Village, EPZ	Clinical examination	Instrumental examination and biochemical blood screening	Instrumental examination (EKG, ultrasounds), not. incl. biochemistry
Orichi	634	160	474
Mirny	329	100	229
Kotel'nich	433	126	200
TOTAL	1,396	386	903

Table 2. The Number of Children Who Had Medical Check-Ups.

The morbidity patterns among children living in villages in the EPZ show some differences in their details. Overall, the results of comprehensive examinations of these children are not different from average national indicators.

On-site Examination of Children Living in the EPZ Near CW Storage Facilities and CWD Facilities in Maradykovsky

Examinations at specialized on-site units allow us to identify a great deal more illnesses than through clinical diagnostics, and allow us to conduct etiological and pathological treatment. Over the reporting period, CCH No. 38's on-site unit was able to conduct in-depth examinations and treatment for 120 children and teenagers (See Table 3). Children at the unit were selected based on the results of routine preventative checkups conducted by our visiting specialists so as to represent 50% of the children living close to the facility (in Maradykovsky — no more than 3 kilometers away) and 50% of the children who live further from the facility (in Orichi — over 40 kilometers from the facility). The results of comprehensive medical checkups are shown in Figure 2.

Villages and dates examinations were held	Number of examinations
The Kirov Oblast EPZ: 05/15/06–06/03/06	30
The Kirov Oblast EPZ: 09/25/06–10/14/06	30
The Kirov Oblast EPZ: December 2006	30
The Kirov Oblast EPZ: April-May 2007	30
TOTAL	120

Table 3. The Number of Children Examined at the CCH No. 38's On-Site Unit.

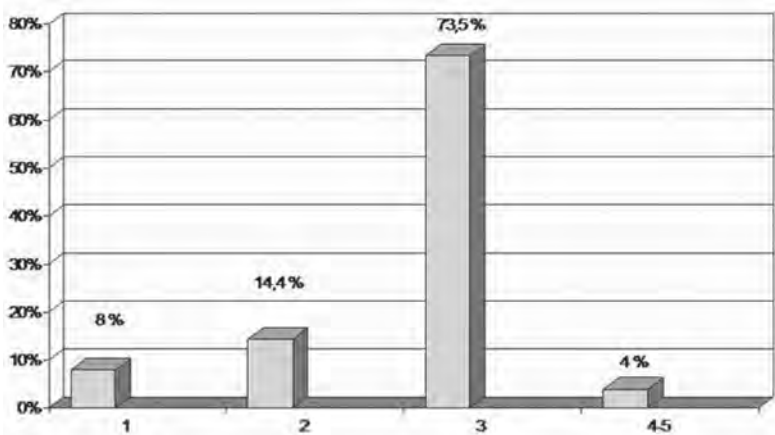


Figure. 2. A Comprehensive Assessment of the State of Health among Children Based on Medical Checkup Results (Group 1 – Relatively Healthy; Group 2 – Rarely Ill; Group 3 – Often Ill; Groups 4 and 5 – Ill)

The results of on-site examinations have shown that the morbidity patterns are led by illnesses of the digestive system (36.6%), nervous system (12.2%), respiratory system (10%) and the urogenital system (10%). Other significant ailments included illnesses of the musculoskeletal system (8.8%), and the skin and hypodermis (6.6%) (See Table 4).

Examination of Children who Live in the EPZ Surrounding the CWD Facility in the Udmurt Republic

A total of 1,728 children from the EPZ in Kambarka and Kizner were examined with help from the doctors at the Rayon Children's Clinical Hospital in Izhevsk in 2005–2007: 866 boys (555 in Kizner and 311 in Kambarka) and 862 girls (573 and 289, respectively).

Table 4. Morbidity Patterns among Children Living in EPZ

No.	ICD-10 Classification	Total	%	Rating
II	Tumors	2	2.2	6
IV	Diseases of the endocrine system, nutrition problems, metabolic diseases	5	5.5	5
VI	Nervous system diseases	11	12.2	2
IX	Blood circulation diseases	5	5.5	6
X	Respiratory diseases	9	10.0	3
XI	Digestive diseases	33	36.6	1
XII	Diseases affecting the skin and hypodermis	6	6.6	5
XIII	Musculoskeletal and connective tissue illnesses	8	8.8	4
XIV	Urogenital system illnesses	9	10	3
XVII	Birth defects, deformities and chromosomal abnormalities	2	2.2	6
TOTAL		90	100.00	

Based on the results of morbidity pattern analysis based on the International Classification of Diseases (ICD-10), the children in the EPZ in Kambarka predominantly present respiratory illnesses (26%), and roughly the same number of illnesses affecting the nervous system and digestive system (14%). We also observed a high frequency of diseases of the musculoskeletal system and connective tissues (295 children, or 14%) as well as the endocrine system (79 children, or 8%).

The children in Kizner exhibit roughly the same frequency of the diseases presented by children in Kambarka. Given the same number and gender makeup of the groups, one thing that draws attention is the higher frequency of nervous system illnesses in Kizner (384 children, compared to 297 in Kambarka), and almost twice as many diseases affecting the skin and hypodermis (92 and 59 children, respectively).

Examinations of Children Living in the EPZ in Shchuch'ye

The results of monitoring the health of children living in the EPZ included comprehensive clinical testing of 2,396 children in the Shchuch'ye Rayon by visiting specialists, and another 190 children at CCH No. 38.

This in-depth analysis of the distribution of illnesses was conducted in three different villages: Shchuch'ye, Planovy, and Chumlyak, which are located within the EPZ of a facility used to store organophosphorous substances. More than 1,800 children were examined (see Figure 3).

A statistically significant difference in the distribution of pathologies of the musculoskeletal system in these villages allowed us to propose a hypothesis regarding the impact of pathogenic factors in the environment on the health of the children in the area. The examinations that were carried out at the out-patient unit and the specialized on-site unit covered a representative sample of children. This allows us to identify the true morbidity pattern by territory and conduct research in order to establish the possible reasons for mass illnesses that are characteristic of one territory or another.

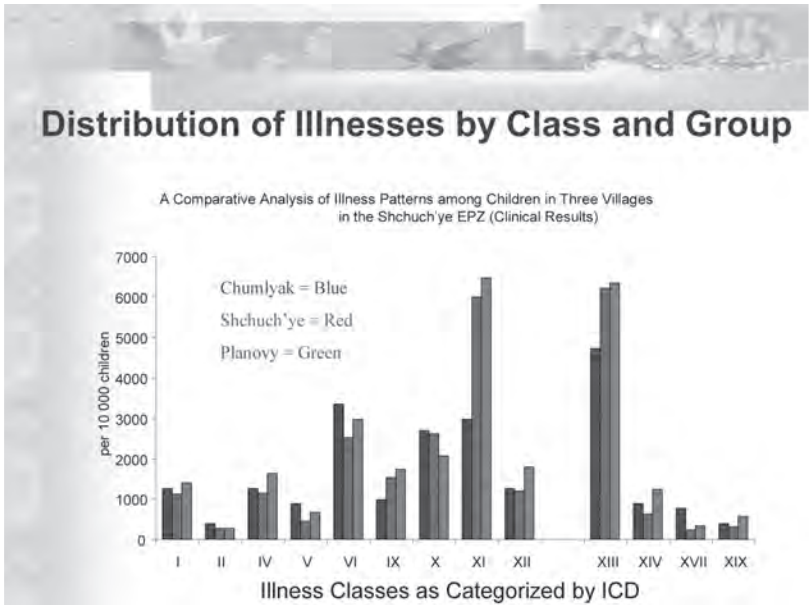


Figure 3. Distribution of Illnesses by Class and Group in these EPZs (10,000 children)

Our findings have not proven conclusive in establishing the impact of facilities used for the storage or destruction of chemical weapons on pediatric health. Nevertheless, we do have baseline data on the impact of natural and other factors. What is needed now is a more in-depth and targeted analysis of the data we have obtained and continued observation and examination of the children. This leads us to our future goals and activities.

Regional Considerations in the Chemical Weapons Destruction Process in the Bryansk Oblast



Andrei Gorenkov
*Head, Office on Chemical Weapons
Convention Implementation,
Bryansk Oblast Department of Industry,
Transportation, and Communications*

Dear Mr. Sergey Baranovsky and Dialogue participants.

First of all, allow me to express my gratitude to the organizers of this Dialogue for inviting me to participate. The government of Bryansk Oblast keeps constant watch over issues related to preparing for and fulfilling Russia's obligations under the Chemical Weapons Convention. This is because Russia's largest chemical weapons (CW) stockpile is located in our region and a facility for destroying this arsenal will be built in the near future.

In accordance with the Russian federal law on chemical weapons destruction (CWD), a number of necessary statutory legal acts have been adopted at the federal and regional levels, which cleared the way for building the CWD facility in Pochep. By decree of the Government of the Russian Federation, an emergency planning zone (EPZ) has been established in Pochep, covering 1,060 km², home to a CW destruction and storage facility complex. The emergency planning zone encompasses 131 communities with a population of 34,237 people, including 6,568 children less than 18 years of age. By decree of Russia's Chief Sanitary Inspector, a health protection zone has also been established around the Pochep CWD complex covering a radius of 2.5 km.

The General Design Firm—the 23rd State Naval Design Institute of the Russian Ministry of Defense—and the Russian Applied Chemistry Research Center (St. Petersburg) have produced an investment justification report and a feasibility study for the Pochep CWD facility. Both stages of the project development work were subject to all requisite consideration and approval procedures, both at the regional and the federal levels, including approval of the Main State Expert Review Board and the State Environmental Expert Review Board. In 2006, the project's feasibility study documentation was approved by the government.

At the moment, the General Contractor, the Russian Federal Agency for Special Construction (Spetsstroï), is completing the preparatory work for building the CWD facility, including construction and development of access roads, installation of power lines, clearing trees, preparatory work on the facility site, building secondary structures and a building complex for the international inspection zone.

The construction and equipment assembly of the CWD facility itself is planned for 2008–2009.

The Russian Federal Target Program for the Destruction of Chemical Weapons Stockpiles in the Russian Federation has set the cost of the CWD facility in Pochep at

10.11 billion rubles. The Federal Target Program includes the planned implementation of projects, which will ensure that social infrastructures are developed in areas where CWD operations are planned before those operations begin. These projects include the building and renovation of buildings, facilities, utilities, and housing, for a total cost equal to 10% of the building cost of CWD facilities.

The list of construction and renovation projects for social and utility infrastructures in Pochep paid for with investments from the federal budget as part of the Federal Target Program is expected to cost 1,094 billion rubles.

In Pochep from 2002–2006, as part of the regional development sub-program, a 60-unit apartment complex was put into service, the infectious diseases unit of the Pochep Central Hospital was renovated, and gas lines were installed in communities in and around Pochep. Under the Federal Target Program, approximately 300 million rubles have already been allocated and disbursed for social infrastructure projects in the Pochep region. This year, the Federal Target Program plans to rent out a 70-unit apartment complex in Pochep for the medical personnel of the diagnostic and consultation clinic and the central regional hospital.

In 2007, a sewage collector was built from the central regional hospital to the municipal waste treatment facilities, and gas supply lines were extended to more communities in the region. In August 2007, construction work started on a public school for 768 students in Pochep. The school is scheduled to open in late August 2008. In 2008, regional social infrastructure development projects will continue as part of the chemical demilitarization program.

The Bryansk Oblast is about to start a large-scale effort for the construction of a CWD facility on its territory. One of the biggest priorities, along with the construction and modernization of social infrastructure facilities in the Pochep region, is decreasing social tensions and shaping a positive attitude toward chemical demilitarization among Oblast residents. This can be done by capitalizing on the high potential of local construction and manufacturing businesses and involving local residents in the construction of the CWD facility.

The Oblast administration, together with experts from the Federal Department for Safe Storage and Destruction of Chemical Weapons and the Russian Federal Agency for Special Construction (Spetsstroj), is discussing the possible participation of leading local and regional construction, manufacturing, and transportation businesses in the Oblast CWD program. This program involves the creation of an environmental and health monitoring system for the protection of CWD workers and the population living in the emergency planning zone. The monitoring systems would ensure a precise and clear understanding of the health of the population and the state of the environment before the construction of the CWD facility and during toxic agent elimination.

For this purpose, in December 2006, a diagnostic and consultation clinic started operating for the examination of persons living and working in the emergency planning zone. Medical services for the residents and personnel working within the EPZ will be provided on a full scale, starting with an evaluation of the baseline public health and environmental aspects of the area, ongoing monitoring during CWD operations at the complex, and also after such operations are concluded.

It should be noted that before the clinic started operations, planned medical evaluations of individual groups of children and adults were conducted by the Russian Federal Medical and Biological Agency and Oblast public health authorities in specially-adapted facilities. Since March 2007, these evaluations have taken place at the above-mentioned medical center.

By the end of October 2007, over 8,000 individuals residing in the EPZ, including over 3,800 children, had undergone a full medical evaluation. By the end of 2007, approximately 10,000 individuals are scheduled to complete the evaluation. The increased rate at which medical evaluations are conducted will make it possible to evaluate the health of all residents of the protective action zone prior to the start of operations at the CWD facility.

The State Scientific Research Institute for Environmental Industry (Saratov, Russia), located in the Oblast, is nearing the completion of a State Environmental Control and Monitoring System at the regional level for the CW storage and demilitarization complex and the environment of the surrounding areas. At this time, a State Environmental Control and Monitoring Regional Center (SECMRC) for the Bryansk Oblast has been established, modern analytical equipment has been purchased and put into service, and laboratory personnel has been selected and trained. A baseline environmental assessment of natural systems in the EPZ has been conducted; and the mandatory methodological and normative documentation that governs the Center's operations has been created.

The Oblast authorities took into consideration the potential future uses of the advanced environmental analysis capabilities of the Bryansk Oblast SECMRC and granted the Center pro-bono use of a free-standing 600 m² building in the city of Bryansk for the Center's Central Laboratory. Rehabilitation work on the building housing the Central Environmental Analytical Laboratory of the Bryansk Oblast SECMRC is nearly complete.

In connection with the planned demilitarization of chemical weapons stored on Oblast territory, one of the top priorities of the CWD program is to shape a positive public opinion among the residents regarding the CWD process. The Green Cross Russia Public Outreach and Information Offices (POIOs) in Bryansk and Pochep have provided significant assistance to Oblast authorities in conducting an information campaign among Oblast residents regarding preparations for chemical weapons demilitarization.

The Oblast government wishes to express its gratitude to the leadership of Green Cross Russia for its focused work and all-stakeholder inclusive approach on chemical weapons disarmament. It is our hope that we will continue our fruitful collaboration on a number of projects of importance to the Bryansk Oblast. Thank you.

Accounting for the Impact of Industrial Companies in Emergency Planning Zones of Chemical Weapons Destruction in the Kirov Oblast



Vitaly Perestoronin
Head of the Department for Environment and
Nature Management, Kirov Oblast

The first processing line of the Maradykovsky facility was put into operation on September 6, 2006. During the preparatory period, a government control and monitoring system was created and put into place, and now supports public outreach efforts. At present, work is underway to launch the facility's second processing line, which will destroy the reaction mass. One of the achievements from this previous and difficult period was our work with the State Scientific Research Institute for Environmental Industry to create a team of scientists and experts led by Professor Ashikhmina, whose goal is to organize and conduct environmental monitoring at the local level.

Per the initiative of the Department of Environment and Nature Management in the Kirov Oblast and with support from the State Scientific Research Institute for Environment Industry, in 2006, the decision was made to carry out a jointly-financed program for the comprehensive assessment of the impact that facilities were having on the environment in the most heavily populated areas within the emergency planning zone (EPZ). The goal of this work is to assess the consequences of current manmade burdens on the territory of these villages before the chemical weapons destruction (CWD) facility launches operations, and for the duration of CWD operations (2006–2012). Of course, the results are to be made available to the public.

The EPZ at the Maradykovsky facility measures approximately 900 square kilometers with an average radius of up to 25 kilometers (see Figure 1). This is a large territory that is home to the villages of Orichi, Mirny, Istobensk and the town of Kotel'nich. Roughly 50,000 people live in this area and all kinds of industrial and agricultural plants are scattered throughout. These plants can all have a direct, negative impact on the places where people live. They operate and grow independently, and, for the most part, have no connection whatsoever to the CWD facility. Correspondingly, identifying at least the main sources of pollution and increasing their accountability is an absolute necessity. However, we do need to keep in mind that CWD facilities are under federal control (the Russian Federal Service for Environmental, Technological, and Nuclear Oversight), while the other plants and factories are under regional control, which is exercised by the Department of Environmental Conservation of each Oblast. Actually, this territory has three different levels of responsibility: federal, regional and municipal.

This subsystem, which is run by the region in tandem with the federal center, and

the work that is carried out under this framework is essentially completing the creation of a comprehensive environmental monitoring system on this territory. It may later be expanded into a regional environmental monitoring system to meet the ends of the Oblast as a whole.

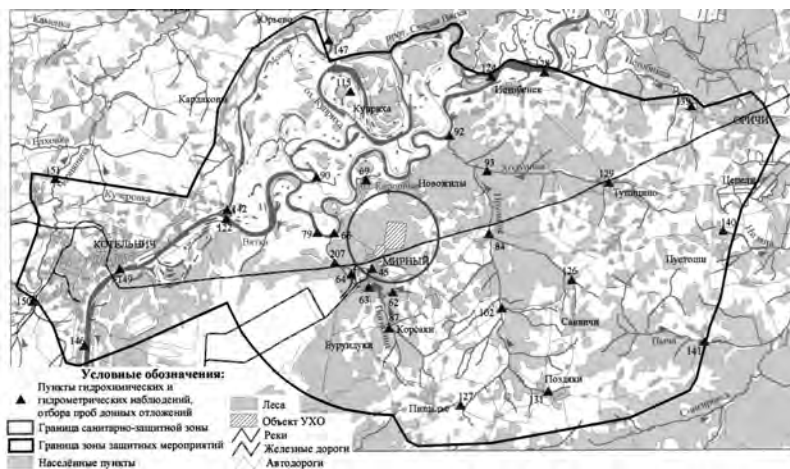


Figure 1. A map of the Maradykovsky facility's Emergency Planning Zone

The results of studies demonstrate the relatively high level of manmade burdens on surface waters from sources of pollution. This is primarily due to the low quality of water treatment for wastewater from utility services as well as industrial and agricultural companies, in addition to the lack of a treatment system for runoff.

Pollutant values in the air in the Kotel'nyy and Orichovskiy Rayons are generally within accepted levels. At the same time, problems are caused by residential territories located close to factories, main thoroughways, i.e., sources of pollutants in the air and their health protection zones (HPZs).

In 2007, the Department collected baseline data on existing sources of air pollutants in the Kotel'nyy and Orichovskiy Rayons. The impact of emissions from industrial factories and road transportation on residential territories was determined. Control measures were taken to ensure the quality of surface waters at facilities, as well as subsurface waters and the state of recreational areas. Monitoring was carried out at dumps and designated areas for solid household waste. There are 129 main companies that are negatively influencing conditions within the EPZ; of those, 77 are in the Kotel'nyy Rayon, and 52 are in the Orichovskiy Rayon. There are a total of 331 large sources of environmental pollution that were identified and monitored: 178 sources of soil pollution, 129 fixed sources of air pollution, and 24 industrial sources of water pollution.

Data shows that laboratory-based physicochemical studies of surface waters at facilities in 24 cross sections resulted in values exceeding maximum allowable

concentrations (MACs) in terms of chemical and biological consumption of carbon, copper, sulfates, suspended solids, ammonium nitrate, and oil products.

Three drinking water wells in Kotel'nich have been analyzed. The results of laboratory tests draw attention to underground well numbers 45901, 33593 and 43933, the fluoride content of which exceeds MAC by 1.2–1.6; well numbers 33593 and 43933 exceed MAC for chloride by 1.6, sulfates by 1.7, and dry particles by 1.8–1.9.

An inspection has shown that the total volume of pollutants emitted within the EPZ amounts to 7,614 tons per year. The gross emissions of harmful substances in the Kotel'nich Rayon amount to 5,396.20 tons, including 3,358 from fixed sources; of that amount, 1,475 tons are solid waste. Emissions in the Orichivskiy Rayon amount to 2,218.20 tons, 610 tons of which are solid waste. The main sources of air pollutants in Kotel'nich are the energy-hungry facilities at Kotel'nich Poultry Farm and the Kotel'nich Wood-Processing Factory. In the Orichivskiy Rayon, this applies to heating provided by utility services. Emissions from CWD facilities amounted to 667 tons per year, or 8% of the total volume of emissions at the EPZ, or just 0.2% of all pollutants in the Oblast.

Work has been done to monitor the air quality and industrial pollutants in the air in the Kotel'nich and Orichivskiy Rayons of the Kirov Oblast. Air samples were taken from various sites in the town of Kotel'nich, including from within the HPZ of Kotel'nich Wood-Processing Factory. In Orichi, samples were taken from the ABZ construction materials plant, the HPZ of the Orichivsky PMK-1, a military facility, and the residential areas of Istobensk and Strizhi. A total of 68 samples were taken in all, which presented the following air pollutants: carbon monoxide, nitrogen dioxide, sulfur dioxide, phenols, formaldehyde, and suspended substances. Values were not found to exceed MAC.

A total of 14 facilities in Kotel'nich were monitored for air pollutant emissions (Kotel'nich Furniture Factory, Kotel'nich Dairy Factory, Kotel'nich UPP VOS, the Vyakta hotel complex, Vympel-M, Kotel'nich Bread Factory, Yantar, Kotel'nich VK UASIN Russia of the Kirov Oblast, the Wood-Processing Factory, Spitsinskoye, Velon) and three facilities in Orichi (ABZ-Orichi, Orichanka Furniture Factory, KPK Lotos). A total of 35 emission sources were monitored, and 270 samples of gas-air mixtures were taken. Values exceeding maximum allowable emissions (MAEs) of copper at Kotel'nich Wood-Processing Factory (at the treatment unit) by 240%, and ABZ-Orichi's carbon monoxide emissions and inorganic particles exceeded MAE levels by 10 and 3.9 times, respectively. Values for other pollutants did not exceed MAE. At Velon and Leskon, higher-than-MAE levels were found for carbon monoxide (g/sec), suspended substances, nitrogen oxide (total), sulfur dioxide and oil ash (vanadium pentoxide).

The results of laboratory tests of 40 soil samples revealed that the following contents exceeded MAC values by 2.3 times near the Kentavr Wood-Processing Plant: nitrates, nitrites, chlorides, sulfate, phosphates, fluoride, copper, zinc, lead, cadmium, arsenic and chrome. Other 38 samples did not present any values above the norm.

Data collected in 2007 is currently being processed and we are establishing correlations between our data and the state control and monitoring data received by the monitoring center on-site at the CWD facility. This comprehensive approach to monitoring and observation at the EPZ will help achieve the following:

- Maintain accurate information about the state of the environment, ensure records are kept and control is exercised not only at the CWD facility itself, but also near other sources of pollutants in the area;
- Take timely measures to discontinue the negative influence of these facilities on the environment and human health;
- Fully account for this impact by conducting medical and health monitoring among the population depending on their place of residence;
- Publish maximum allowable emissions for residential areas and socioeconomic development programs

The results of this teamwork should be considered as the environmental report card for the EPZ territory and as a multi-municipality program for its environmental remediation.

The Formation and Development of an Environmental Monitoring System as an Important Factor in Relieving Social Tension



Tatyana Shingarenko
Director of Regional Center for the State Control and
Environmental Monitoring
of the Shchuch'ye Chemical Weapons Destruction Facility,
Kurgan Rayon

When I was preparing for this Dialogue, I reread the documents from the previous Dialogue and I was once again struck by the global, multilateral nature of the problems discussed at our meetings. But our goals and tasks have changed and have become clearer with the passage of time at various stages in the chemical disarmament process. In many regions, plants are already operating, construction is underway of chemical weapons destruction (CWD) facilities in the Shchuch'ye Rayon of the Kurgan Oblast, one of Russia's seven chemical weapons (CW) arsenals where conventional artillery shells and missile warheads filled with sarin, soman and VX gas are stockpiled.

There are many factors that need to be accounted for in the process of forming positive opinions among the community and local residents regarding the existence of stockpiles and the CWD facility's construction and subsequent operation. These include environmental control and environmental monitoring in emergency planning zones (EPZs). This is easy to understand, since people often relate their state of health to their environment.

The first environmental studies in the district were started back in 2002 and continued up until the construction and launch of operations of a specialized body: the Regional Center for CWD Facilities. The Center began working in 2006 under a clear-cut program and a set of rules approved by all regulatory bodies, just as it is done in the other similar regions (see Photo 1). The organization of the CWD process for the Shchuch'ye arsenal and multilateral environmental monitoring of the EPZ covering all CW storage, transport, and destruction facilities has distinctive features. Let us take a closer look.

The CW storage and destruction facilities in the Shchuch'ye Rayon are located 12 km from one another and will be connected by railway. Due to the distance between the facilities, the EPZ is roughly 750 km² and encompasses 20 villages and settlements (including Shchuch'ye and Chumlyak). The Trans-Siberian railway and the Baikal national highway, both busy thoroughways, pass through here. The Shchuch'ye Rayon EPZ also includes the Miass River watershed, along with the Chumlyak tributary, numerous lakes and swamps, as well as the Chumlyak aquifer, which provides water for the city, the adjacent villages and the settlements. The CWD facility plans include water supply from this source.

The particular topography and surface water system of the EPZ determine a variety of soils and flora. In general, the soil most typical of the Shchuch'ye Rayon is currently characterized by low humus and nitrogen content, sufficient levels of

potassium, average phosphorous content and increased copper and manganese ion content throughout the area.



Photo 1. The Analytical Control Laboratory

The zonal vegetation cover of the area located within the forest-steppe zone features a complex set of gramineous meadow steppes and steppe meadows with birch, aspen-birch and aspen woodlands. The following factors impact the state of the environment in the EPZ:

1. Agricultural operations are the main factor influencing the topography. Moreover, the use of pesticides and agricultural chemicals needs to be considered, particularly the high usage in previous years. The EPZ territory contains toxic chemicals, including chemicals similar to the toxic components of CW.

2. The Chelyabinsk industrial network is located 70–80 kilometers to the west of the CWD facility. The volume of pollutant emissions from the network exceeds the total volume of the Kurgan Oblast's emissions by 250%. Disposal of wastewater from the Chelyabinsk Oblast into the Miass River is resulting in the pollution of the river at the Kurgan Oblast border with petrol products, phosphates, copper and iron with content values ranging from 5 to 10 times the maximum allowable concentration (MAC).

3. The Mayak nuclear facility is located 100–120 km from the CWD facility and has a large volume of stored radioactive waste.

4. The area's industrial companies, transportation and utilities, even though their influence on the environment is relatively small and an impact is seen only on a local scale.

5. The construction of CWD facility and an infrastructure that involves the use of new natural plots, which disrupts the soil and vegetation cover.

6. The predominant western air mass transport, a stagnant moisture regime in parts of the territory and increased radon concentrations. The natural environment in the

area is currently affected by a number of industrial factors, which will be added to in the future by the CWD facility. The public needs to know about these factors as well.

The environmental monitoring system that is being designed must ensure that information is received about the consequences of the potential impact of a CWD facility on the main natural abiotic components (the atmosphere, surface waters, soil) under the conditions of a large number of random factors influencing the spread of pollutants that are the by-products of the facility.

In other words, the number of points and areas in which the facilities are built must be such that monitoring results are representative in terms of the sizes of polluted zones and the distribution of pollutant concentrations in these zones.

The impact of the CWD facility's operations on the environment should be considered together with potential chemical effects related to the migration of by-products of the detoxification and destruction of organophosphorous compounds to the air, surface and ground waters, the soil, sediment from which they could travel up the food chain and reach flora and fauna. Moreover, when organophosphorous compounds, the by-products of their destruction and the components of degassing mixtures are introduced into the environment, they can biodegrade or transform into other substances. Natural water is a good host medium for chemical reactions and also serves as the habitat of microorganisms. Soil is the most complex natural environment comprised of water, surface air, soil organisms and mineral and organic substances.

Today, very little is known about the transformation of chemical agents in the environment, and there is a lot of research that must be done to identify interim and end by-products of destruction and transformation, as well as their chemical and toxicological properties.

That is why setting up an efficient environmental monitoring system only with the resources of analytical chemistry is a major challenge, especially with the low concentrations of pollutants expected from normal facility operations. Chemical and analytical control does not presuppose the combined nature of pollutant effects. As a result, the environmental monitoring system in areas affected by CWD facilities is based on a combination of biological control methods and chemical analysis research. In turn, biological control is conducted using laboratory biotesting and environmental monitoring for organism and biocenoses indicators.

Biotesting methods are based on recording cumulative toxic effects of all or many pollutant components at the same time, and help assess samples (or locations where monitoring is conducted) for pollutants quickly and cost-efficiently.

This is why the Regional Center for the CWD facility in the Kurgan Oblast features actively operating certified eco-analytical control laboratories and a biomonitoring and biotesting laboratory. The latter laboratory, for example, is where analyses of environmental samples are conducted in order to determine the most toxic natural elements that require more intensive chemical analysis control. Other objectives are to identify the reasons for and the nature of this high toxicity, search for new test subjects for eco-toxicological analysis, new bio-indicators in natural environments, and develop new biological monitoring methods (see Photo 2).



Photo 2. Laboratory Control Samples

The importance of biomonitoring is highlighted by the fact that the mechanism by which toxic agents affect fauna (particularly warm-blooded animals) is very similar to the way in which they affect humans. Furthermore, the most important thing is knowing how to assess the impact of pollutants in biological elements at the earliest stages, before the process becomes irreversible.

Biomonitoring subjects include representatives of a variety of systemic groups of flora and fauna and the systems they form. That is why the Center for CWD, in collaboration with Kurgan State University and the Ilizarov Rehabilitation Trauma & Orthopedics Center, is conducting a major scientific research project.

The reason I am mentioning all of this is to once again emphasize that we are prepared for the start of key facility operations.

The material that we have collected over many years of practice and that has undergone multilateral analysis by the media, in informational leaflets, at meetings and at seminars, is being shared with the public. This process is supported by years of experience working with the creative, proactive team of Green Cross Russia's Public Outreach and Information Office (POIO) in Shchuch'ye and the Public Relations Group (PRG) for the CWD facility.

I do want to note that, by using different forms of information outreach, we need to keep in mind the different social strata and communities and remember that not many people are able to understand the professional arguments for various aspects of the disarmament process. Military personnel, engineers, technologists, ecologists and medics all follow one line of logic. Finding the best ways to present information and expanding the circle of people spreading information is the key task of all information centers, including ours. Like in many other regions, our center works with company ecologists, libraries and librarians, with school teachers and university professors. But I will always support the tireless, creative efforts of the Shchuch'ye GCR POIO in working with teachers in all nearby districts, and especially with children, teaching them

environmental education. I would like to draw your attention to today's issue of *Priroda Zauralya*, which features an article on this issue.

It is difficult to overvalue the positive aspects of this process given the important factor of children's authority to adults. In developing different ways of working with children, we have nurtured the idea of creating environmental school laboratories, at least in Shchuch'ye and Chumlyak; a biotesting laboratory, for example. It would not be a very expensive project. The main pieces of equipment would be aquariums, microscopes and the relevant cultures. Of course, our monitoring center is not currently able to take on these costs, but it is happy to take on the management, supervision and establishment of methods and holding seminars and teacher training. We already have proposals. For example, as part of the coursework for the students at Kurgan State University, curricula are being developed for elective courses on issues related to CWD facilities. The curricula incorporate methodological approaches that can be taken to implement these programs, and perhaps the students from our institutions of higher education can take on this work themselves. That is especially important in light of the absence of a testing laboratory in Shchuch'ye, which was initially included in the monitoring project. In this way, by engaging students in practical applications, expanding their knowledge of the environment, many questions related to sporadic incidents in the environment (flower pollen, partial waterlogging along banks of bodies of water, industrial pollution) can be dealt with right away and without giving rise to negative emotions (Photo 3).



Photo 3. Collecting Water Samples

In conclusion, I would like to say that we are counting on the positive resolution of CWD matters, including in our region. I wish everyone success!

Working Together with Green Cross Russia: Progress and Prospects



Evgenii Zakharov
Deputy Head of the Shchuch'ye Rayon Administration on Social Affairs

The problems associated with chemical weapons destruction (CWD) in the Shchuch'ye Rayon are some of the most pressing problems in terms of both social development and environmental safety. As a rule, the population responds to CW facilities with fear and panic; people are concerned for their health and the environment. The residents of the Shchuch'ye Rayon in the Kurgan Oblast are no exception — chemical weapons are stockpiled in this district and construction of CWD facilities is currently underway.

In order to minimize the residents' negative response and foster a positive public opinion, the residents need objective, effective education. One of the main sources of information in the area is the Green Cross Shchuch'ye Public Outreach and Information Office (POIO) for CWD. The POIO opened its doors in 1997, marking the beginning of constructive collaboration between the local residents, the Rayon Administration and Green Cross Russia.

In July of that same year, the very first public hearings on CWD were held in Kurgan and Shchuch'ye, and delegates from all of the district's municipalities were invited to attend. It was the first dialogue between the residents, technology developers, government representatives, foreign partners and authorities from all levels. It was the first time the residents of the district found out — directly from the Captain of Military Unit No. 92746 — what is being stockpiled in the village of Planovy. This, of course, came as a major blow: why is it here, why don't they take it back to where it came from? The organization and scale of the hearings resonated beyond the boundaries of the territories surrounding the Shchuch'ye Rayon. This caused the POIO's staff to consider creating an outreach system for the local residents based on their ages, education levels, social status and interests.

Green Cross's POIO adheres to the basic principles of democratizing the concept of CWD and public openness; the doors to this social organization are always open to everyone, young and old. For 10 years now, the POIO has been conducting public opinion polls within the emergency planning zone (EPZ) every three months and the results are used to analyze the most vital issues in order to duly account for the concerns of the population. Anyone may access the results of these social polls.

Educational material is disseminated among the residents via brochures and booklets as well as local print media such as the newspaper *Zvezda* — nearly every family in the area has a subscription.

Thanks to the direct participation and ideas of the Director of the POIO, the

Head of the Shchuch'ye Rayon issued Decree No. 142 on June 2, 2000 ordering the creation of one of the country's first Citizens Advisory Commissions (CACs) for CWD under the Rayon Administration. The CAC's members included 13 representatives of civic organizations. The CAC is an active advisory body created in areas in which chemical weapons are stockpiled and destroyed and its goal is to ensure civil control over chemical weapons stockpiling and destruction, coordinate actions between citizens and local authorities, involve residents in decision-making processes, and identify social tension among residents and the participants in the CWD process, both in the EPZ and in the Rayon as a whole. The CAC is a body that provides assistance to the Head of the Rayon in accounting for the opinions of residents when it comes to making decisions about CWD-related issues.

The CAC's key objectives are:

- Involving the public in the decision-making process, formulating a constructive public opinion on the full range of CWD issues, ensuring openness of the work that is carried out;
- Preparing proposals for federal authorities, the Government of the Kurgan Oblast and local authorities on CW matters;
- Getting all forms of companies and organizations, scientific institutions and services involved in CWD at various levels to participate in educating the population, stakeholders, and organizations.

Since its inception, Galina Vepreva, the Director of the Shchuch'ye POIO, has been the Vice Chairman of the CAC.

The POIO's work with the district's youth is equally important. The environmental health camp has been organized over the course of the past ten years, with the participation of the staff from the Shchuch'ye POIO. This camp is held annually and hosts at least 200 teenagers with ages from 14 to 18 years old. The environmental youth camp is held in an outdoors complex and combines environmental education and training with the development of practical skills. Recently, attention has been focused on how to practice a healthy lifestyle, health and safety, and patriotism. The environmental camp program includes a lecture series on CWD topics and methods, as well as practical classes to develop and master the skills needed for emergency preparedness. A great deal of time is devoted to environmental conservation, and large-scale clean-up efforts are conducted to clean polluted areas. A fully-fledged environmental movement has taken root since the creation of the camp.

Based on the experience gained from the camp program, it was decided that children needed to be involved throughout the year. The result was a year-round extra-curricular education program that has been a success for two years straight, fostering a community of like-minded, active teenagers who can have a positive influence on their peers.

In order to achieve the best possible results, the program has been built upon three principles:

- Continuity (a year-round system of environmental education and training in the Shchuch'ye Rayon);

- Accessibility (involving as many people as possible, from all age and social groups, including children and teenagers; accounting for the developmental, psychological and emotional features of all of the groups involved); and
- Interests (working with children interested in environmental issues, practicing a healthy lifestyle, developing interests in the environment, the next generation of different social classes in the district, and holding informal, positive recreational events).

The environmental camp movement developed by the Shchuch'ye POIO has expanded beyond the Rayon's boundaries. Over the past years, children from neighboring districts in the Oblast have attended the camp, in particular from the Safakulev and Shumikhin districts, from the city of Kurgan and even scouts from Saratov. The camp also hosted guests from the United States, and in 2002, the camp gained international status. The goals of the new generation to support open dialogue on CWD-related issues over recent years have grown stronger and genuine interest is observed at seminars, classes and meetings.

Since the camp was launched, the staff at the Shchuch'ye POIO has invited experts from the Rayon Department for Civil Defense and Emergencies and officers stationed at Military Unit No. 92746 to hold classes. The environmental experts at Military Unit No. 92746 teach students about what it's like to work in a movable environmental laboratory. When roads are impassible, the Captain uses KamAZ trucks to transport children to and from the camp, leaving children with a positive impression of the military servicemen living and working in the Shchuch'ye Rayon.

Constructive relations were established between the Rayon's Civil Defense and Emergencies Department and Green Cross Russia, and these relations have grown into close collaborative ties. The two organizations have held three joint training courses and tournaments for divisions within the Rayon's companies and organizations. Events were held to distribute gas masks and evacuation exercises were held in preparation for a CW emergency situation. This year, the POIO and the Department plan on offering training sessions on sheltering-in-place.

Green Cross Russia's POIO is also conducting a year-round environmental education and training program for children and teenagers called Ecology and Environmental Conservation (EEC), run by Olga Lagoida. The concept behind the program is working with the public sector towards shaping and implementing a health maintenance system. The goals of this program include: improving public well-being, promoting environmental education, presenting healthy lifestyles as a priority, increasing self-awareness and minimizing psychological and emotional tension and anxiety across all levels of the population affected by poor environmental conditions.

Thinking environmentally means fully realizing the connections between nature and mankind, the environment and the economy, lifestyle choices (both moral and physical) and health. It means teaching young children the importance of protecting the environment and all living things, acknowledging that we are a part of nature, and developing life-long habits of responsible behavior toward nature.

This program was designed for school-aged children and young people who are out of school, as well as children from low-income families, problem kids and teens living

in the Shchuch'ye Rayon, and their parents and other family members. The program's objectives are to create a common information space for environmental education, ensure safe living conditions and promote healthy lifestyles, establish an environmental education and training system that includes all ages of children and teens, involve all organizations and institutions working in environmental education and training, such as: the Rayon Department for Public Education (RDPE), the art center for children and teens, schools, the Committee for Youth Cultural Affairs and Sports under the Rayon Administration, and the Youth Detention Center, among others.

The program tasks include getting children involved in the environment, especially in the Kurgan Oblast and Shchuch'ye Rayon; providing complete and objective information about CW stockpiling within the Rayon and other topics related to CWD facilities; instilling in children the sense of personal responsibility for environmental conditions in their hometowns.

The program involves organizing events aimed at promoting healthy lifestyles, giving participants an environmental education, teaching them skills to help make competent decisions that affect nature and the environment based on environmental knowledge, holding nature conservation events, fostering humanitarian views and moral values, creating the conditions for promoting activism among children and teens, developing a children's and youth environmental movement, and fostering activism in the future generation.

The strategy is based on education with the purpose of improving environmental awareness, which should be systemic knowledge about the environment (Nature is the source of knowledge) gained by direct experience with nature (Nature is our laboratory) and for nature (learning how to properly assess one's own actions). The result should be increased knowledge of environmental safety and the connection between the quality of the environment and the health of the population. Promoting healthy lifestyle habits will naturally lead to improved quality of life.

One of the most notable events in the Shchuch'ye Rayon is the annual children's drawing contest dedicated to the native Western Siberian natural environs. This year, the contest was entitled "Western Siberia — a Corner of Russia," and over two hundred children took part. Each participant received a participation award, and the contest winners were given valuable prizes. On June 1st — Children's Day — the city turned the main square into an exhibition of the young artists' artwork in honor of the holiday.

Experience has shown that when children learn about CW early on, they form more positive and objective attitudes to this feature of their region. Even very young children respond well when they are taken along to the POIO and shown posters and models, when stories are accompanied by video clips. It is important for them that adults speak to them as equals about adult problems. CW topics are actively discussed within families. The things that parents say out of habit and without thinking, the stereotypical doom-and-gloom ("they're poisoning us," "we're all going to die," "poison everywhere") frighten young children. When they are shown that many adults are working on resolving safety issues, they calm down and become very interested in what will happen when the CWD facilities are built.

The most difficult task is working with teenagers and older children (15–18 years old). The excesses of youth and the determination to cast doubt on everything

mean that we must thoroughly design ways to work with them and construct a complete communication system while using an individual approach. One way is through the environmental camp, which has helped us gain experience and make some generalizations. During the first camps, teenagers demonstrated distrust and a negative attitude towards lectures about CW. However, at more recent camps we have observed a healthy interest in different aspects of CW stockpiling and destruction. The more actively involved participants have expressed their wish to speak directly to the new arrivals about weapons stockpiling and the construction of the facility. Overall, activism among teenagers has grown. The camps employed a format in which children not only learned and demonstrated what they had learned, but they also made efforts to identify and offer solutions for specific problems. Remarkably, the teens themselves pointed to the problems related to the unwillingness of most people to deal objectively with information about CW and the prominence of negative stereotypes. They proposed a wide range of different approaches for working with the population, such as distributing brochures adapted for children. They suggested making cartoons and comics. They pointed out that extensive knowledge about CW and related problems makes the topic less frightening. The teens who attended the camp demonstrated that concepts such as active citizenship and responsibility for one's own region are not abstract to them. After years of organizing the camp, we are convinced that high-school age children are capable of reacting positively to information, delving deeper and engaging in lively discussions on a variety of details. This becomes especially clear when our children travel to other regions and these young activists share information about their district with their peers and demonstrate an optimistic viewpoint and their ability to think sensibly.

The children leave the camp with lasting positive impressions, which is why the CWD problems they addressed at camp seminars seem less insurmountable.

Public opinion polls have shown that work with the children and youth of the Shchuch'ye Rayon has been productive and positive. Members of the up-and-coming generation attending focus groups in Shchuch'ye address the problems of the future usage of CW calmly, with interest, and without a negative attitude.

In conclusion, I would like to note that parents are not the only ones who create stereotypes among their children; children can also speak with their parents and help them think about just how much things depend on them. In working with children, Green Cross Russia's POIO exerts an indirect influence on the worldviews of adults. Parents often worry about the lives and health of their children, and if they see that their children are not upset by CWD-related matters, they will have one less thing to worry about.

Unfortunately, working in this field requires a great deal of effort and financing, which is not always within the powers of the local authorities. That is why the aid from Green Cross Russia, both material and methodological, is becoming the primary guarantee of success in taking on these projects.

The Rayon Administration is grateful that Green Cross Russia POIO frequently organizes charity events, extending beyond the official functions of the POIO staff, who often contribute their free time. We are grateful to Mr. Stephan Robinson of Green Cross Switzerland, the companies: Bechtel, Westinghouse and Parsons, and the American International Health Alliance, which does so much for healthcare in the Shchuch'ye Rayon. The US Open World Program has helped many of the local residents learn about

the experience of the US public in various fields. And all of this was made possible with the active assistance of the Green Cross Russia POIO.

It is hard to imagine implementing the Federal Target Program (FTP) for CWD within the Rayon and helping Russia meet its obligations to the international community without the Green Cross Russia POIO. It is the litmus test for determining the views of the local population on CWD. The Rayon Administration is counting on the POIO to continue making a significant contribution both to the local residents and toward achieving all aspects of the FTP.

Environmental Assessment of the Kambarka Health Protection Zone and Emergency Planning Zone during CWD Facility Operations



German Frizorger
Head of the Center of Environmental Monitoring and Information Provision, Ministry of Natural Resources and Nature Protection, Udmurt Republic

Performance Indicators for CWD Facility No. 1203: 2006 through November 1, 2007

12/20/05—Pilot launch of the first processing line at the facility.
1.7 tons destroyed.

03/01/06—Official launch of the first processing line at the facility.
17.4 tons destroyed.

1,000 tons of lewisite destroyed by 08/15/06, 2,000 tons destroyed by 12/06/06, 3,000 tons destroyed by 03/16/07, 4,000 tons destroyed by 09/11/07. By the end of October 2007, 4,400 tons have been destroyed.

The facility was not in operation for part of July and August 2006. In May 2007, the detoxification modules were out of order and in July all facility operations were halted for equipment maintenance until August 3, 2007.

Environmental Assessment: Air Quality *Emissions Standards Monitoring Results*

Quarterly monitoring at the federal level is done by sixteen total atmospheric monitoring stations, including eight outside the facility (in the so-called “outside the fence” area), five on top of CW storage facilities, and three in other parts of the facility. The following agents were controlled: in the first half of 2007 — lewisite, arsenic, inorganic arsenic compounds, and chlorine hydride; in the third quarter of 2007—only lewisite and inorganic arsenic compounds.

In the first quarter of 2007, 16 samples were collected, another 16 in the second quarter, and ten samples in the third quarter. For all samples collected in 2007, the ratio of the obtained emission values to the maximum allowable emissions/effluent values was less than one. This means the maximum allowable concentration (MAC) levels have not been exceeded. Similar results were recorded in 2006 at sources of contaminants.

Air Quality Monitoring of the Emergency Protection Zone (EPZ) of CWD Facility No. 1203 (2006–Summer 2007)

Number of monitoring stations – 19, located in the health protection zone (HPZ) and the EPZ. Monitoring was conducted twice per year. By October 1, 2007, twelve samples had been collected. Monitored compounds: lewisite, inorganic arsenic compounds, chlorine hydride, and hexavalent chromium.

Quantitative chemical analyses (QCA) of the collected samples showed that the concentrations of the monitored contaminants were below the detection levels of current methods and lower than the maximum allowable concentrations.

Air Quality in Kambarka

A daily air quality check is conducted by three permanent air quality monitors (1, 2, 3) and a periodic check is done at the CWD facility's fixed-site chemical analysis laboratory. General industrial pollutants (SO, SO₂, NO, NO₂) and process-specific contaminants (lewisite, arsenic, benzopyrene, and lead) were monitored.

General industrial pollutant concentrations exceeded MAC for the following number of days per month: December 2006 – 10 days (cold), January 2007 – 16 days (warm); February 2007 – 17 days (frost), March 2007 – 20 days (cold), April 2007 – 12 days, May 2007 – 9 days, June 2007 – none (hot), July 2007 – 5 days (cold, rainy), August 2007 – 4 days (hot), September 2007 – none (warm), October 2007 – none (warm).

Critical levels of general industrial pollutants in the air in the residential areas of Kambarka (12/2006–04/2007) persisted due to the operation of small boiler-houses and private residential furnaces.

Water Management Monitoring Results

Monitoring at the federal level was conducted at monitoring wells, and of discharge into on-site treatment facilities and from municipal treatment plants (MTP) into the Kama River. The Kama, Kambarka, and Buy Rivers, the pond, and the swampland were subject to federal monitoring. In addition, three potable water quality monitors are in use at the main municipal water intake.

Results:

1. Discharge from the MTP following UV treatment –nitrites, phosphates, BOD₅ values were significantly higher in May–July.

Nitrites, phosphates, suspended solids, and BOD₅ were found in the well on the shore of the Kama River (05/2007–06/2007). The same situation was observed in July and August 2007. The water level in the Kama River remained at the customary spring-time level of 2.6 meters through the end of June. MTP discharge into the Kama River contained nitrites, nitrates, phosphates, sulfates, and suspended solids at levels that significantly exceeded MAC for maximum allowable emission values for bodies of water almost completely throughout the spring and summer seasons. This situation was not observed in the spring or summer of 2006.

2. Discharge to the on-site treatment facilities (at the production site), well No. 20: monitoring has been in place for the last six months of 2007. Here, the discharge values for process-specific monitored contaminants (arsenic, chromium, and 2-chlorovinyl arsenous acid, as well as for standard monitored values for sewage water) do not exceed MAC and maximum allowable emissions (MAE) values.

3. Monitoring wells on the grounds of the CWD facility (arsenic ions, chromium, 2-chlorovinyl arsenous acid, as well as for standard monitored values for water), showed that MAC/MAE values were not exceeded.

Quarterly monitoring at the federal level is done through 11 units with a depth of 21.7 – 37.1 meters. A total of 16 samples were collected in 2007 from one ground water monitoring well in the HPZ in Khmelyovka.

MAC value in mg/dm³ for groundwater is not set. The QCA value obtained in June 2006 was accepted as a baseline indicator. Based on QCA results for spring and summer 2007, it was determined that all ground water monitoring wells were showing a minor upward trend in maximum emission values/baseline indicators for acidity, sulfates, nitrates, chlorides, and dry particles. An increase in the concentration of sulfates and nitrates is observed primarily in monitoring wells located in the south-western part of the CWD facility grounds, close to public utilities.

In addition to monitoring general pollutants, we are monitoring process-specific contaminants (lewisite oxide, arsenic ions, chromium). Problem monitoring well: No. 40-Zh.

Kama River Surface Water Quality Monitoring

Biannual monitoring at two points 500/0/500, using 14 indicators, monitoring arsenic among other contaminants. The ratio of maximum emission values to baseline indicators for fishing activity is below one at these monitoring points. Dissolved oxygen (0.92) and ammonium ions (0.9) indicators are close to one. Arsenic concentration at these points is 0.0075 mg/dm³.

The concentration of arsenic in sewage entering the Kama River every month from MTPs varies and averages between 0.011 to 0.014 mg/dm³. In May, 1.25 kg of arsenic entered the Kama River with sewage water, but arsenic concentrations averaged no more than 400 g in July, August, and September according to MTP laboratories. Since September 2007, discharge from the plants into the Kama River has increased from 950 m³/24 hrs to 1,450 m³/24 hrs. The volume of discharged sewage has increased by a total of 1.5 times.

Surface water quality in the Buy and Kambarka Rivers and the pond has remained stable. MAC values for monitored contaminants have not been exceeded in these bodies of water.

Potable Water Quality

In Kambarka, potable water quality is monitored by the laboratory at the main municipal water intake. Monitoring is carried out at the water intake point (the pond), in the contact chamber of the potable water reservoir, and in the standpipes. Over the entire observation period from March to August 2007 inclusive, potable water quality did not meet Sanitary Regulations and Standards 2.1.4.1074-01. Values above MAC were constantly monitored for sulfates, phosphates, iron, nitrites, and permanganate values. On August 30, with the completion of start-up work on the new equipment, the old contact chambers No. 1, 2, 3, and 4 were disconnected and new lines No. 7 and 8 were put into operation. In September 2007, aluminum sulfate (Al₂(SO₄)₃*18 H₂O), the new purification reagent, was put to use. The water quality has normalized.

Soil Quality Monitoring

Biannual monitoring at the federal level is conducted through 77 monitoring points for soil quality. By October 1, 2007, 48 samples had been collected. Monitored

agents included 2-chlorovinylarsenous acid, lewisite oxide, arsenic, chromium, pH, and chloride ions in water extract.

Results

At ten sampling points, arsenic indicators increased by 0.9–1.6 mg/kg of soil as compared to the October/November 2005 baseline.

The maximum arsenic values in 2006 were 15 mg/kg at sampling point No. 79 and 14.5 mg/kg at sampling point No. 47. The former was located under a power supply line at the border with Bashkiria, 6 km from the facility, while sampling point No. 47 was located near the road to Balaki, 1,800 meters from the facility. The values are now 11.4 and 8.9 mg/kg, respectively. The maximum value of 14.8 mg/kg for summer 2007 was recorded at sampling point No. 57. At 22 sampling points, the obtained value had decreased by 0.3–1.5 mg/kg compared to the 2005 baseline indicator. There was no change observed for the remaining 16 sampling points. At the production zone, samples were collected at six points. The obtained values for arsenic content at these units ranged from 0.9–1.2 mg/kg and match the QCA indicators from October 2005.



Stephan Robinson, International Coordinator Legacy Program, Green Cross Switzerland (left) consults with Diana Gosens, Senior Policy Officer, Security Policy Department, Ministry of Foreign Affairs, The Netherlands (right)



Left to right: Alexandr Denega, Head, Public Relations Group, Gorny Arsenal, Saratov Oblast; Alexey Ivanov, Head, Public Relations Group, Pochep Arsenal, Bryansk Oblast; and Nikolay Leonov, Head, Public Relations Group, Kizner Arsenal, Udmurt Republic



Galina Vepreva, Director, Green Cross Shchuch'ye Public Outreach Office, Kurgan Oblast (right), and Tatiana Sirota, Member, Initiative Group "Union for Chemical Safety," Shchuch'ye (left)



Dialogue Participants (left to right), top row: Mr. Voronchikhin, Acting Head of the Mirny City Government; Mr. Filev, Director of Mirny Green Cross Public Outreach Office; Ivan Manilo, Director, Green Cross Kurgan Public Outreach Office; and Sergey Stadnikov, Director, Green Cross Chelyabinsk Public Outreach Office, the Chelyabinsk Oblast. Middle row: Anatoly Arefiev, Director, Green Cross Izhevsk Public Outreach Office, the Udmurt Republic; and Tamara Ashikhmina, President, Green Cross Kirov affiliate. Bottom row: GCR Public Outreach Offices Directors: Vladimir Novikov (Kambarka), Vladimir Korzanov (Pochep), Nina Svedentsova (Kirov), Galina Vepreva (Shchuch'ye), Vladimir Kudoyar (Kizner), Ivan Bulatnyi (Bryansk)



Dialogue panelists (left to right): Vitaly Perestoronin, Head, Department on Environment and Nature Management, Kirov Oblast; Tatyana Shingarenko, Director, Regional Center for the State Control and Environmental Monitoring of the Shchuch'ye CWDF, Kurgan Oblast; Aleksandr Ivanov, Head, Department of Environment and Biology, Penza State Agricultural Academy; German Frizorger, Head, Center of Environmental Monitoring and Information Provision, Ministry of Natural Resources and Nature Protection, Udmurt Republic; Sergey Baranovsky, President of GCR; Vladimir Alexeev, Head of Department, Izhevsk State Technical University; and Evgenii Zakharov, Deputy Head of the Shchuch'ye Rayon Administration on Social Affairs



Discussion during the soffee break among conference participants



*Sergey Palamarchuk (right), Head, Public Relations Group,
Leonidovka Arsenal, is speaking*



*Dialogue panelists (left to right): Valery Malyshev, Deputy Head, CWC Agency,
Ministry of Construction, Architecture and Housing Policies of the Udmurt Republic;
Mikhail Manin, Head, Department on the CWC, Government of the Kirov Oblast;
and Andrei Gorenkov, Head, Section for Questions of the CWC, Department of Industry,
Transport and Communications, Bryansk Oblast*



A presentation by Valery Demidyuk, Deputy Director General, GosNIIOKhT



Natal'ya Rylova, Editor of Zhivoy Klyuch newspaper, Member of Kizner Citizens Advisory Commission (left), and Svetlana Maslova, Director, "Awareness" Research Center (right)



Ms. Sirota (left) and Ms. Vepreva (right) provide technical support for the conference



Sergei Romanenko, Deputy Head, Environmental Center, Russian Ministry of Defence (left) and Vladimir Antonov, Deputy Head, Environmental Safety Department of the Russian Army (right)



Journalists and participants during the press conference



*Dale Ormond, Acting Director, Chemical Materials Agency,
U.S. Department of the Army*



*Nikolai Golovchenko, Head, State Sanitary-Epidemiological Service,
Federal Medical-Biological Agency*



*Marina Yanchenko, Deputy Public Outreach Task Manager
Parsons Global Services, Inc.*



Sari Rautio, First Secretary, Embassy of Finland in Russia



*Diana Gosens, Senior Policy Officer, Security Policy Department,
Ministry of Foreign Affairs, The Netherlands*



Vladimir Leonov, Program Director, Green Cross Russia



*Sergei Savinykh, Deputy Director,
Green Cross Mirny Public Outreach Office,
the Kirov Oblast*

*Sergei Savinykh, Deputy Director,
Green Cross Mirny Public Outreach Office,
the Kirov Oblast*





*Colleen Pigeon,
Second Secretary,
Global Partnership Program,
Embassy of Canada in Russia*

*Stefan Aus Dem Siepen, Counselor,
Political Department,
Embassy of Germany in Russia*



*Cristian Ion, Legacy Program
Associate, Global Green USA (left),
and Marie Chevrier, Associate
Professor, University of Texas and
Chair of the Scientists' Working
Group on Chemical and Biological
Weapons, Center for Arms Control
and Nonproliferation (right)*



Sergey Fyodorov, Chief Specialist, Department for the CWC and the Rehabilitation of Territories, the Kurgan Oblast Administration



Left to right: Paul McNelly, Program Manager, Chemical Weapons Elimination, Cooperative Threat Reduction Program, Defense Threat Reduction Agency, U.S. Department of Defense; Terry Burton, USG On-Site Manager; and Frank Howard, SAIC



Session of the 2007 Russian Chemical National Dialogue

Public Information about the Results of Environmental Monitoring of the Leonidovka Emergency Planning Zone



Aleksandr Ivanov
*Head of the Department of Environment and Biology
Penza State Agricultural Academy*

In addition to the scientific and industrial tasks associated with environmental monitoring at facilities for the storage and destruction of chemical weapons (CW), one of the most important fields of activity among State Environmental Control and Monitoring Regional Center (SECMRC) in the Penza Oblast is to provide the local residents with information about the work being conducted to monitor the state of the environment. This is needed in order to maintain peaceful and calm situation, and to allow Russia to fulfill its obligations under the Chemical Weapons Convention (CWC). This work is comprised of several stages.

The first stage involves getting the public familiar with the essence of the matter and the control system for monitoring compliance with environmental safety during the chemical weapons destruction (CWD) process. Towards this end, in the fourth quarter of 2006, the SECMRC, together with the Penza Oblast local museum, organized a mobile exhibition illustrating the history of chemical weapons, the history of the Leonidovka arsenal and the problems associated with CW destruction and the CWC. The exhibition continued throughout 2007. When it opened, a roundtable discussion was organized and provided a platform for the management team of the CWD facility, the representatives of the regional government, public organizations, the media, and anyone else interested in the issue. The grand opening of the exhibition was broadcasted on local radio and television and covered in the local print media. As a result, the exhibition received 3,000 visitors. The exhibition staff included highly experienced guides who had undergone comprehensive training with the SECMRC in the Penza Oblast, as well as staff members from the center.

Another important approach is holding seminars with representatives of the media, school teachers and employees of municipal Administrations. This contingent works directly with the local residents who live in emergency planning zones (EPZs), and makes sure that they are informed about the issues at hand. The seminars are held by the SECMRC together with Green Cross Russia using funds contributed by Green Cross Switzerland. One essential component of each seminar is a field trip to SECMRC laboratories. In 2007, two seminars were held with the employees of local administrations and staff from libraries, museums and other cultural institutions.

Work with the academic community takes place by collaborating with institutions of higher education in Penza and the Penza Division of the Russian Academy of Natural Sciences, which help release scientific publications and themed collections.

They include detailed coverage of the methods used in and results of environmental monitoring. The collections also include the results of studies for CWD facilities and CW storage facilities near Leonidovka and in other regions affected by CW destruction.

Efforts to inform the public about the state of the environment in areas where CWD facilities are under construction are made through special issues of the newspaper *Izvestiya* and leaflets that are published monthly by the SECMRC. In 2007, ten series of leaflets and two special newspaper issues were published, all of them with the address and telephone number of the SECMRC, resulting in many inquiries from the public. The questions primarily concern social problems and negative environmental phenomena; these are issues that attract the attention of the population, including the mass mortality of juvenile fish, pine shoot dieback, and blight epiphytotics of tomato crops. All of these phenomena are recorded by the center staff members. The residents are provided with explanations directly, over the phone and through leaflet publications.

At present, the plans for public outreach with residents living in and near Leonidovka have achieved a certain calm and stability in the region. The statements being made by the residents and communities concern only the delays in carrying out social programs. These statements are fair and are certainly appropriate; in particular, in the case of the renovation of the road from Penza to Zolotaryovka. As a rule, the demands of the population are heard and carried out by the Federal Department for Safe Storage and Destruction of CW (FUBKhUKhO).

The center receives a great number of calls from local residents about possible negative impact of CWD on preserving mushrooms and berries found in the EPZ. In 2007, the center received at least 100 phone calls on this issue. Since the residents have exhibited more interest in the quality of edible, wild mushrooms, the center's analytical laboratory ran special tests for arsenic and heavy metals in sporocarps. It was found that the mushrooms were suitable for eating, as the raw mushrooms met established medical standards.

The rehabilitation of the sites of former CWD facilities conducted by the center with support from the Blacksmith Institute Fund has played a very important role in reassuring the public. Together with scientists from the Penza State Agricultural Academy, the center designed an original, patented technology to recultivate polluted land using natural and chemical ameliorants. In 2007, this technology was demonstrated at the National Exhibition Center, where it received the silver medal and a diploma. In 2007, a second area was recultivated. In the 1950s, this area was the site for the destruction of chemical munitions. The attention devoted to the environmental remediation of previously polluted sites is a sign that, in the future, all CWD operations will be conducted in strict compliance with Russian federal environmental law and without doing harm to the environment.

Innovative Mechanisms for Converting Chemical Weapons Disposal Facilities



Vladimir Alexeev

Department Head at Izhevsk State Technical University

The completion of the chemical weapons destruction (CWD) process at a number of facilities presents us with a new task: converting CWD facilities in order to reuse the buildings and infrastructures. This is very important for the local residents, who are concerned about the following:

- Jobs for those previously hired at the CWD facilities;
- The state of the land after the CWD process and the long-term effects (1–5 years) of CWD operations on the environment and people's health;
- The future conversion of CWD facilities from an environmental perspective;
- Ensuring the operation of social facilities created under the CWD program once ownership rights to these buildings are transferred to the city.

In addition, there are a number of problems concerning the replenishment of the local budget, as budget allocations will not continue after construction is completed and operations are ceased. As a result, the conversion of these facilities is a very relevant concern for these territories.

For the Udmurt Republic, which holds two arsenals for the storage of chemical weapons (CW), there is also a psychological problem that could be described as “local experience.” The completion of operations at the Kambarka facility is useful experience for the residents of the Kizner Rayon, where construction of a new facility recently began.

In terms of humanitarian aid, this matter should also be of interest to countries involved in providing aid for CWD in Russia as it increases the effectiveness of their investments in the program.

The conversion of CWD facilities requires the use of innovative mechanisms since the main equipment for doing so, according to the Chemical Weapons Convention (CWC) also requires remediation. The best selection of innovative mechanisms for converting facilities requires an assessment of the following:

- The engineering infrastructure for potential secondary use;
- A selection of key engineering infrastructure elements that can be used without redesigning them for the principal use of the future plant after facility conversion;
- The industrial potential of the territory and the natural resources for

determining the main purpose of the future company;

- The potential uses of the company and a key group of tasks considering the development of the region's industrial potential as a whole and the region's problems;
- The economic features of the future company in order to determine profitability and competitiveness.;

Other conditions for converting facilities are:

- Applying new production technologies;
- Minimizing the impact on the surrounding environment and population;
- The international significance of the project, for example, as related to the resolution of time-sensitive problems related to energy resources, global warming, globalization, etc.

The innovative mechanisms for implementing facility conversion projects are determined by financing sources. This includes funds from the budget, private businesses, non-budgetary funds and international projects.

Let us consider some facility conversion ideas in Kambarka.

Project No. 1: Recycling waste products from the oil industry, transportation (waste tires), agriculture and the timber industry.

Social impact: Improvement of the environmental conditions in the Udmurt Republic, Improved education among the population regarding waste management, and creation of new jobs.

Economic impact: reduction of environmental damages from waste.

Project No. 2: Recycling waste from the wood and timber industry, plant materials as an alternative source of energy (fuel, liquid fuel, electricity, etc.).

Social impact: Improved environmental conditions in the area, reduced greenhouse gas emissions, reduced industrial waste.

Economic impact: Reduced expenses for traditional energy production methods, preservation of natural resources.

Project No. 3: Liquid nitrogen production.

It should be mentioned that one liquid nitrogen production unit already exists at the facility. The need for liquid nitrogen is related to the expanding use of it in the industrial, agricultural, medical and science sectors.

Social impact: Environmentally clean production, Creation of new jobs.

Economic impact: Sale of liquid nitrogen and the creation of new modern technologies (such as nanotechnologies). It is important to note that the implementation of each of these projects requires hiring highly qualified specialists, which means training the residents of Kambarka. That will involve expanding educational programs, the creation of a science annex at our university's affiliate campus in Kambarka.

The facility under construction in Kizner will have an enhanced engineering

infrastructure and even now, during the design and construction stages, we need to determine its future purpose after conversion. The possibilities were addressed in our article with Valery Kapashin in 2000 and include the production and processing of peat, mineral waters, oil refineries, etc.

The conversion of CWD facilities will not only have a positive economic impact, but it will also convince the community of the need to take the next steps towards the disposal of other types of armaments. Behold the chemical-weapon-free 21st century!

Social Tensions in Chemical Weapons Destruction Locales: Risk Factors and Control Methods



Svetlana Maslova
Director of the “Awareness” Research Center

I am very glad to have the opportunity to speak at this event. Since 1999, I have been conducting sociological research in areas where the chemical weapons destruction (CWD) program is being implemented. You have heard me speak many times before about my findings. This time I decided to focus on one of the most sensitive topics for CWD communities: social tension. Green Cross Russia’s Public Outreach and Information Offices (POIOs) and Public Relations Groups (PRGs) with the Military Units focus primarily on shaping constructive attitudes toward the CWD process among local residents. It is important for them to have a better understanding of the events that can lead to an escalation of social tensions, and to understand how social crises and conflicts can be averted.

Our Center’s research shows that social tensions are determined by three main factors: a) information, b) the relevance of information to the residents, such as information related to social guarantees, safety, or what to do and who to contact in case of an emergency situation, and c) trust in the sources. Looking at these, you’ll notice that while different government entities are responsible for resolving these issues, outreach and information efforts are critical for their success.

Now let us look in greater detail at these factors.

First of all, a sufficient quantity of information should reach residents and it should be accessible to all categories of residents. Each CWD community has a local GCR POIO, but there are remote villages where residents have no way of regularly obtaining information from the POIO. Every region has employed residents who can attend lectures and discussions of CW topics when these are held at their places of work. At the same time, there are unemployed residents and retirees who have no such option. In addition, information should also be tailored to different categories of the local population. We frequently hear from the residents that a given article about CWD issues uses fairly complicated language and those residents who do not have a higher education have a hard time understanding it.

The next factor is the relevance of different CWD topics for the residents of the various regions. Our research shows that at the start of facility construction, residents are most concerned about issues of personal safety. They want to learn more about the CWD technology that will be used at the facility, what kind of chemical agents will be destroyed there, and how confident they can be about the absence of a threat to their health and the environment. Later, when the residents have received sufficient information in answer to these questions, they become more interested in the promised

social component of the CWD program. At this point, residents want to receive up-to-date information concerning the development of social infrastructures in their region and completion timetables.

The third factor is trust in the main sources of information. Although the staff of GCR POIOs and the military Public Outreach Groups regularly meet with reporters, and supply them with information, there are occasional inaccuracies in the way CWD is covered and social infrastructure developments are sometimes exaggerated. Of course, the local population smartens at such misrepresentation of the facts. This, in turn, undermines trust in official sources of information. People start to put more stock in hearsay and speculations, which has a negative effect on the population's sentiment and its attitude toward CWD.

The next constituent element of social tension is how residents view the effectiveness of solutions to social problems. Here we are talking about the residents' own, subjective perception: what changes can they see in their day-to-day life? What can they be proud of? For example, if a given region has a gas main, but the majority of homes are not connected to it, then residents will not be interested in reading about a ceremony held to hand over ownership of the gas main. They want to have gas lines brought to their homes and to be able to use this new asset. The residents consider real only those achievements that improve their individual quality of life, and not the achievements described in the newspapers.

The next important factor is the extent to which residents are informed about existing social guarantees. We know that laws dictating the provision of various benefits to emergency planning zone (EPZ) residents have changed as the CWD program was being implemented. Not all residents are aware of the changes in the law or where they need to turn to obtain this information. We need to keep the residents informed about existing guarantees. For example, not all EPZ residents realize that health monitoring is being done in their area and that they can have a physical medical examination done free of charge. This is especially true for the residents of more remote villages.

Another factor is the expectation of improvements, and an assessment of the future. This is an important factor to consider, because every region has people who look toward the future with optimism and expect improvements and the resolution of social problems. But some are pessimists. People see that the social component of the CWD program is not keeping up with the promised pace. Many stop hoping for improvements and stop believing that the initial promises will be kept. The ratio of "optimists" to "pessimists" in each CWD region determines, to a large extent, the amount of social tension and the overall attitude of the local residents toward the program.

The next important moment is ensuring the safety of CWD area residents. I've already stated that concerns over safety are of greatest relevance to the residents at the very beginning of CWD program implementation in their region. Later, the residents receive information about existing safety guarantees and learn how to act in the event of an emergency. The issue of safety remains important to them throughout the process, however. I would like to stress that a subjective impression of the level of safety is dependent on several factors and is not determined solely by the presence of a CWD facility in the area. Each region has its own idiosyncrasies. At one location, the locals may be concerned about crime, if crime levels are elevated where they live. In another

case, residents may be worried about the effect of various commercial facilities on the environment.

It is clear that taking measures to ensure the safety of the populations is very important. All CWD regions distribute gas masks to their residents and offer emergency preparedness training sessions and lectures. This is why it is critical that we involve broad sections of the population in these events and promote the events through local papers and radio broadcasts.

I would also like to emphasize the importance of another component: delegating responsibility for ensuring safety. Our research shows that not everyone knows which organizations and what individuals are involved in ensuring public safety. They don't know where they need to go in an emergency or even to simply get some information. Telephone numbers and addresses of the relevant organization should be in every home.

Before concluding, I'd like to list the main risk factors that result in an escalation of social tensions. Of course, every region is different but I will highlight those factors that are common to all and matter most to residents.

The main risk factors are:

- The residents' dissatisfaction with unresolved social welfare issues;
- Concerns over the possibility of adverse effects of CWD facility operations on human health and the environment;
- Distrust of official sources of information as a result of inaccurate reporting;
- Anxiety over personal safety due to lack of necessary information, poor road conditions being an obstacle to an effective emergency evacuation, and a deficient or altogether absent emergency alert system;
- Rumors about chemical agent leaks at CW storage and destruction facilities.

These factors are interconnected. For example, if the residents do not trust official sources of information and do not know which organizations can supply them with reliable information, then they will rely on hearsay. Frequent scares over "leaks" get started when residents observe unfamiliar natural phenomena, such as precipitation, unpleasant smells, etc. These phenomena may be due to industrial activity at unrelated commercial establishments in the area, but the residents, in the absence of needed explanations, tend to blame CWD facility "emissions."

What methods can we use to control social tension? I suggest several basic strategies:

- Ensure the objectivity and accuracy of all CWD information and meticulously check all your facts before publication;
- Ensure timely coverage of events connected to the CWD program implementation, and also, any environmental aberrations in the region;
- Encourage cooperation between the regional GCR POIOs and local divisions of the Civil Defense and Emergencies Department; be proactive about informing the public about events geared at ensuring public safety.

According to our Center's findings, regional GCR POIOs and local divisions of the Civil Defense and Emergencies Dept. are considered the most trustworthy by the local populations. Residents feel that these organizations will help with the implementation of the social welfare program, protecting their rights, and ensuring public safety. For this reason, closer collaboration between these organization promises to be highly productive and effective.

Thank you.

**Keys to a Successful Federal Target Program:
Social Guarantees and Safety for Populations
Near Chemical Weapons Storage and Destruction Facilities**



Tatyana Sirota
Member of the Union for Chemical Safety Initiative Group,
Shchuch'ye

Dear ladies and gentlemen!

This is the first time I have ever spoken in front of such a distinguished audience, but perhaps this is also the first time you have encountered a housewife so preoccupied by the serious issues of chemical weapons (CW) storage and destruction, as well as the related concerns over social guarantees and safety. Indifference is not an option for me, because my family and I live in a CWD area. We all understand that these weapons must be destroyed, but none of us want to have such dangerous facilities close to our home. This is why, early on, in order to shape a positive attitude among local residents about the construction of a CWD plant, we were promised quality housing, gas lines throughout the district, a water main, heated apartment buildings, great roads, sports centers, kindergartens and schools with swimming pools. We were also assured that both CW storage and the destruction process would be entirely safe for the environment and the population.

This was reaffirmed in 1997 in the Federal CWD Law and later in the Federal Target Program (FTP). Article 17 of the draft of the federal law stated that residents of the emergency planning zone (EPZ) have the right to apply for social benefits and compensation, which would be paid out of the federal budget. The local population believes that this is fair, that we should be compensated for the risk incurred by living near a hazardous facility, because we did not choose to live next to a CW facility; instead, it was secretly built right next to our homes. Later, this article was removed from the federal law by our lawmakers, even though our deputy to the State Duma, Nikolay Bezborodov, said that people living in such a dangerous area deserve all kinds of protection and guarantees of both social assistance and safety. Deputy Bezborodov promised that after the passage of the main CWD law, a set of laws would be passed to protect the interests of the population.

Ten years have passed since that promise and the residents are disappointed, to put it mildly. They built a wonderful school in the town of Shchuch'ye, but the roof leaks during heavy rains due to its poor quality. The area around the school has not been leveled, resulting in water damage to the houses nearby. A new building for hospital workers was built, but actual construction deviated from the initial design, and now the apartments remain cold no matter how hot the radiators get. While building the water main through the city, workers opened up pavement widths of 2.5 m, but they are repairing these to measure 1.6 m in width. To make matters worse, the repairs are being

done with major violations: roads that were repaired last year are barely passable now. The town still does not have gas, the new heating plant in the town center does not work, and the central regional hospital has no gas boiler.

We are dismayed at the lack of respect with which taxpayer money has been spent: a kilometer of sewer pipes were laid and the construction effort stopped there. What was the point of putting in sewer pipes if there are no treatment facilities? This is a simple example, and there are many others, but we'll leave it to the Audit Chamber and its auditors, who came to Shchuch'ye in early October 2007 to do a complete analysis.

We are also surprised to read in the newspapers and brochures that the plant at Shchuch'ye is the biggest in Russia, which means it is also the most expensive. In that case, why do we have such a meager infrastructure compared to other regions with CW storage sites?

The district's residents, who can plainly see the shocking quality of the social infrastructure's construction, believe that the CWD facility itself may be of the same poor quality and built with the same violations. This local population is concerned for its safety.

We are also distressed about the fact that the first CWD activity at Shchuch'ye was conducted in violation of the law, of the available technologies, and the schedule. We learned about the 2001 destruction of phosgene munitions from local newspapers. The district residents, local government, and the local hospital were neither kept informed nor prepared in case of an emergency situation requiring an alert, the evacuation of the population, or medical assistance. Even today, the area where CW are stored does not have a public alert system, the means to evacuate, or evacuation routes, even though the Program organizers themselves have emphasized that CW storage is more dangerous than the destruction process, and that close attention is needed to ensure the safety and social protection of the residents. Last year, the Green Cross Russia Public Outreach and Information Office (POIO) organized a visit to the Regional Environmental and Monitoring Center of the Shchuch'ye CWD facility EPZ for our community leaders. We were highly satisfied with our meeting with the Center's staff; we attended a lecture on its operations, and were given a tour of the Center's equipment. This is all very well. What is unclear is why this center is located over 200 km from the CW storage and destruction facility.

Disagreements over whether chemical weapons are having an effect on the local population continue. This has a negative impact on the local sentiment. It would be beneficial if the diagnostic center in Shchuch'ye, where a toxicologist and an occupational physician must always be on staff, also operated an environmental laboratory for use not only by the medical specialists, but also for the Russian Federal Service for Environmental, Technological, and Nuclear Oversight (RosTekhNadzor), the Civil Defense and Emergencies Department, and for ordinary citizens.

We have a low tax base and few are interested in investing in manufacturing. Organizations that have been contracted for the construction of the CW facility are exempt from paying local taxes. In 2006, I had the following conversation with a taxi driver from Chelyabinsk. He said that he used to really like the cookies made in Shchuch'ye so I offered to buy them for him right at the local factory and immediately got an odd response, one that illustrates the impact the CWD facility is having on the

local economy and the lack of understanding: “I don’t want your cookies. They’re destroying nuclear weapons over here.” Even retirees from Chelyabinsk, who enjoy the outdoors here and appreciate our proximity to the railroad, have stopped buying vacation homes in the Shchuch’ye Rayon. The CWD facility is having an indirect, negative effect on the development of our region’s economy.

Town residents don’t care whether they freeze at home in their apartments, or while demonstrating out in the main town square, so they will continue to protest and to demand that their voices be heard. We have very little time left: the factory will start operations next year. If the Government of Russia, together with the Federal Department for Safe Storage and Destruction of Chemical Weapons (FUBKhUKhO), the Oblast, Rayon, and Municipal governments do not correct the shortcomings in the execution of the FTP by providing social guarantees and assuaging safety concerns, the consequences cannot be predicted. This is not in the interest of the local residents or anyone involved in carrying out the FTP.

Some recent development have given us hope: Victor Kholstov has been to Shchuch’ye to answer our questions; auditors from the Russian Federal Audit Chamber have invited our deputies to work together; and we were invited, as community leaders, along with the chairman of the Rayon Duma, the district architect, and the staff of Stroyprogress, to participate in a review of road repair quality. There would be less negativity in the community if this had been done from the very start of construction.

The community is very irritated by one-sided articles appearing in certain national newspapers that make it seem like everything is wonderful here. But no matter how much you try, you can’t make a silk purse out of a sow’s ear. This is why I turn to all willing and unwilling participants of the CWD program with the request to respect and honor the law and to do everything in a diligent and timely manner. Only then will all of these problems go away.

The GCR POIO in Shchuch’ye is an example of a positive and quality project implementation. The public can obtain information at the Office at any time. Not all information can be obtained on a moment’s notice, but we know that the answer will be provided as soon as possible. The Office stays open on weekends as needed. The staff is always friendly and polite. They are there to reassure us and give us advice. People go there not only to get information but also to clear their minds. Meanwhile, the annual children’s drawing contest and the environmental summer camp are eagerly awaited in the community each year. Today, it is hard to imagine our district without the GCR office in Shchuch’ye. They invest a lot of their own time in organizing charity events.

Ultimately, what we want is for the CWD process to be safe and for Russia to fulfill its obligations under the Convention by the set deadline, and to keep the promises it made to its own people.

Comments on Tatyana Sirota's Presentation Submitted after the Conference by the Federal Agency for Industry

This speech reflects the appeals of a number of residents of the Schuch'ye Rayon with Russian government authorities in autumn of 2007. Essentially, when construction of chemical weapons destruction (CWD) facilities began, the Schuch'ye government allegedly promised "streets paved with gold," but did not deliver. The local residents even asked the President of Russia to intervene. Their letters contain pleas to obligate the Russian Government to increase allocations for the district's social needs to 13% (these are not to exceed 10% under the law), recommend that the Russian State Duma amend a number of laws, instruct Russia's Accounting Chamber to verify the accuracy of expenditures, require the Federal Agency for Industry to build a residential building, a children's recreation center, and put in a gas line and water supply, repair roads, and compensate every resident of the district for living in a "high-risk zone."

One year ago, court hearings in a suit against the Russian Government on these same issues finally came to an end after dragging on for months. The Presnensky District Court in the city of Moscow thoroughly examined each claim, and numerous documents and legislative acts related to CWD were examined; dozens of witnesses were questioned, and all necessary inspections and examinations were made. In the end, on October 18, 2006, the court ruled against the claims filed against the Russian Government and the relevant ministries and agencies involved with the Federal Target Program (FTP) for the destruction of chemical weapons stockpiles in the Russian Federation. The claims for compensation for "moral damages" incurred by each of the plaintiffs (RUR 500,000 each) were also denied. An appeal to that ruling was filed, and on April 10, 2007, the court of appeals (under the Moscow Municipal Court) issued the following decision: "Uphold the ruling issued by the Moscow City Presnensky District Court dated October 18, 2006 for Case 2-145/06, and dismiss the appeal filed by the people of the Schuch'ye Rayon."

We would like to emphasize that the CWD process in Russia is being carried out in line with a complex, long-term global program and is under strict and constant international control. Each stage is vigilantly supported by the General Prosecutor, the Federal Security Service, the Ministry of the Interior, the Accounting Chamber and other monitoring and supervisory bodies. It is simply inconceivable that under these conditions, "CWD cash" would be used for purposes other than those set out in the FTP.

The social infrastructure is being developed in accordance with the official List of Facilities for the construction and reconstruction of social and industrial infrastructure for CWD facilities in the town of Schuch'ye, which was approved by the Deputy Head of the Federal Agency for Industry and the Governor of the Kurgan Oblast on June 15, 2006. Stroiprogress has been commissioned to complete road repairs, where roads were damaged during construction.

The personal protection of those living and working in the emergency planning zone is ensured by the Civil Defense and Emergencies Dept. of the Schuch'ye Rayon and the personal protective equipment (PPE) purchased by the Federal Agency for Industry (19,756 sets). Efforts to organize public education are underway in line with

estimate and planning documentation approved by the Civil Defense and Emergencies Departments of the Schuch'ye Rayon and the Kurgan Oblast.

Public outreach efforts will be conducted using a number of different approaches, just as they were at previous CWD facilities (Gorny, Kambarka, and Maradykovsky): using public announcements over loudspeakers along roadways, television and radio broadcasts, automated telephone networks and mobile public outreach units. The Federal Agency for Industry is creating a system for environmental control and monitoring in areas surrounding CWD facilities and chemical weapons stockpiles in the town of Schuch'ye, and progress on this task is being supervised by the Russian Federal Service for Environmental, Technological, and Nuclear Oversight. By the launch of facility operations in 2008, both systems — monitoring and public outreach — will be fully developed and operational.

**Public Relations Group:
Outreach Opportunities and Track Record**



Aleksandr Kuzmin
Head of the Public Relations Group, Shchuch'ye Arsenal

Dear Ladies and Gentlemen!

As you are aware, the purpose of this information service is to create the conditions for the free exchange of opinions and views by all interested parties with regard to chemical weapons destruction (CWD). In addition, it provides the general public and entities that represent the interests of the public with information about CWD. Finally, it allows us to assess public opinion as well as the sentiment of those living near CW storage and destruction sites.

The Public Relations Group (PRG) attached to Military Unit No. 92746 was created in June 1999. Its objective is to examine public opinion on CWD in the region, conduct meetings with the public and representatives of public entities, and develop and publish print materials to be made available to the local population.

Print media are the most accessible means of information for the public, so we try to diversify it and increase the number of copies we print. Specifically, we have printed brochures, booklets, calendars, and a map of the Shchuch'ye area. All of these communicate the information that the public needs in an accessible manner. When it comes to the most pressing issues in chemical disarmament, we publish the information in the form of fact sheets.

The feedback from the local population and public organizations has been nothing but positive. Our publications have been noted for providing useful information, being accessible and well presented. This year, the PRG published 20 articles in local and regional news outlets and in *Khimicheskoye Razoruzheniye*, an open-access electronic journal.

In response to inquiries from the public, we put together a brochure titled "Rules of Conduct during Emergency Situations." This particular topic is also one that we accord an increasing amount of attention as we approach CWD Stage 3. We participate in the safety program that is scheduled for May of each year for all area school children. We describe CW storage conditions and different CWD methods to the participants of the summer health camps. We make a point of drawing their attention to the safety of these processes and telling them about the progress being made in the construction of social infrastructure using videos, slide presentations, and lecture materials.

We dedicate a lot of effort to working with schools. With the assistance of the Kurgan State Radio Company, we produced a film titled "The Road to Safety" consisting of four parts: "The Arsenal," "The Production Zone," "The Infrastructure," and "The Monitoring." The film was broadcasted on local television as part of the *Vesti Zaural'ya*

news program and continues to be supplemented with new materials. We use these videos when meeting with public organizations and visiting area schools and libraries. The film is an important example of our partnership with the Kurgan State Radio.

An important part of our work is public outreach. It takes a variety of forms: meetings, roundtable discussions, and PowerPoint presentations. For several years we have worked closely with the regional employment center. We hold conversations at the Perspectivy Club for people looking for employment. Our district stands out among other districts in the Kurgan Oblast in that, thanks to the on-going construction of the CWD facility and social infrastructure projects, the local population has a great opportunity to find jobs in construction and at the CWD facility itself. If someone wants a job, it's there waiting.

The PRG works closely with the Regional Information Center (RIC) for Chemical Disarmament Issues of the state-owned newspaper *Rossiiskaya Gazeta*. I would like to also note the personal contribution of Mr. Dubrovskiy, who is invaluable to our common cause. We jointly conduct various events and share information.

During the past year, the RIC, the editors of *Zvezda*, a district newspaper, and the PRG of Military Unit No. 92746 created a special group for addressing issues that have appeared in the course of the CWD program implementation. This group includes community leaders such as the Chairman of the Rayon Duma and representatives of the Rayon Administration, and we hope the group will be fruitful. Another initiative of the RIC and a number of other organizations is the children's drawing contest entitled "We Want a World Free of Chemical Weapons." The contest was held in our region for the first time last year. This year, the number of participants increased significantly. The PRG is also involved in organizing this contest.

The newspaper *Rossiiskaya Gazeta* makes a priceless contribution to informing the residents about emergency protection zones (EPZs). It prints additional copies of issues covering the most important issues. Our Group distributes this newspaper and it has quite a following among our local residents.

I would also like to say a few words about our productive collaboration with Green Cross Russia's Shchuch'ye Public Outreach and Information Office. We organize roundtable discussions, seminars, and the summer health camp. Of course, we do disagree on a number of issues, but thanks to the level of involvement of both sides, our commitment and good will, we are able to reach a mutual understanding. After all, as I said before, we have a common goal.

Since 2004, the PRG has participated in the annual Green Cross Dialogue. This helps participants to develop a common point of view and more closely align our positions on CWD issues.

The regional and municipal governments, represented by Mr. Chikishev and Mr. Shalaev, have provided us with a great deal of assistance. They understand the need to keep the local population informed about the implementation of the CWD program and they provide us with support in organizing various events in the region and the city.

It is hard to overestimate the contribution of Mr. Tamakhin, the head of Military Unit No. 1207, who directs and coordinates the work of the PRG. Under his leadership, our Group is engaged in a major effort to inform the local population and foster a positive

attitude toward the topic of chemical disarmament.

The Shchuch'ye Rayon is about to start Stage 3 of the CWD process. I feel that this is a time of great responsibility for the PRG, since this is when we need to maximize our work in supplying the population with information about the program and increase the outreach effort. We need to systematically monitor public opinion, track changes in public sentiment, and be ready to respond to changes. We also need to work even closer with the mass media, Green Cross Russia, and all public organizations. Overall, we can say that the public has become more comfortable with the idea of the CWD facility and they understand the need to destroy the Shchuch'ye arsenal.

Working with the Public: An Important Factor in the Chemical Weapons Destruction Program



Ivan Manilo
Director of the Green Cross Kurgan Public Outreach
and Information Office

Dear Dialogue Participants!

Ladies and Gentlemen, colleagues and comrades (whichever you're more comfortable with)!

To a certain extent, my speech is going to be a little different after Ms. Tat'yana Sirota's emotional presentation for the Shchuch'ye Union for Chemical Safety Initiative Group. However, I do understand and I share her worries and concerns about the realities that we face today.

However, ten years have passed since the entry into force of the Chemical Weapons Convention (CWC). It is a generally recognized fact that of all international agreements, the CWC has become one of the few unprecedented agreements governing the general and total prohibition of the development, production and disposal of one full class of weapons of mass destruction (WMD) and placing its verification under international control.

The destruction of an enormous amount of munitions filled with extremely toxic chemical agents combined with the need to ensure peoples' safety and the safety of the environment is an extremely complex task that requires complex solutions. Such solutions are of scientific, technological, economic, socio-psychological, medical and political importance.

Meanwhile, real successes have been achieved which, figuratively speaking, go hand in hand with real drawbacks. We need to address both sides of the issue, so that they serve as practical examples of the successful solutions of this important regional, national and international problem. The drawbacks, on the other hand, need to be remedied with an equal measure of success.

My speech today will be dedicated to public outreach work and its important role in the chemical weapons destruction (CWD) program.

CWD is one of the most important challenges in the aftermath of the Cold War. More than ten years of experience working at the Green Cross Russia Public Outreach and Information Office (POIO) has shown that the issue of safety in the storage and destruction of chemical weapons (CW) is still very relevant and important to a variety of social groups and among a wide range of age groups, in addition to experts, scientists, students, teachers and pensioners. This goes to show that the public does indeed care about how decisions are made regarding their safety (see Figure 1).

**The reaction of Shchuch'ye Rayon residents to the news
that the Shchuch'ye chemical weapons arsenal will be
destroyed on-site at its storage location**



Figure 1. A Photograph of One of the First Meetings with the Public about CWD

Over the ten years since the third public hearings in Kurgan and Shchuch'ye, the socio-psychological situation has changed markedly. Today the overwhelming majority of the local residents have a constructive — or more simply put, a solid understanding of the work being carried out in the region to build a CWD facility, but with the implicit, priority importance given to the development of a social infrastructure.

Additionally, there are a significant number of local residents who repudiate everyone and everything. And there is a lot of room for improvement when it comes to the development of the social infrastructure and provision of socio-economic resources to the local residents — just as Ms. Sirota mentioned.

It is perfectly natural that POIO staff encounters these problems and solutions on a daily basis. The office is visited by workers, engineers, teachers, university and vocational school students, doctors, and pensioners who have retired from an extensive range of jobs: from laborers to factory directors, former directors of the municipal and Oblast administrations, native-born Russians and foreign scientists.

These circumstances require that POIO staff and members of the Citizens Advisory Commission (CAC) regularly and systemically engage in professional development, increase their knowledge about CWD, and involve scientists and highly-qualified specialists to take part in the process (see Figure 2).

In addition, work with the public on CWD topics has shown that there is a need to continue to develop and improve work on improving environmental knowledge across all social strata.

This is an objective need, as the public's low levels of environmental awareness make it difficult to conduct targeted educational efforts for CWD-related issues.

Furthermore, many people with little exposure to these topics, environmental awareness in particular, easily give into "chemophobia."

There are also people in positions of leadership who have no understanding of this problem whatsoever (and I cannot understand why). For example: not so very long

ago, in October 2006, I needed to make arrangements to rent a bus in order to transport Shchuch’ye media representatives to an annual seminar of journalists in the Kurgan and Chelyabinsk Oblasts. I had a short but memorable talk with the chief accountant. The person I spoke with worked for a major metal processing plant that takes regular orders from all across Russia and abroad. She asked me: “So you’re helping the Americans dump their chemical weapons over here?!” I think that question speaks for itself.

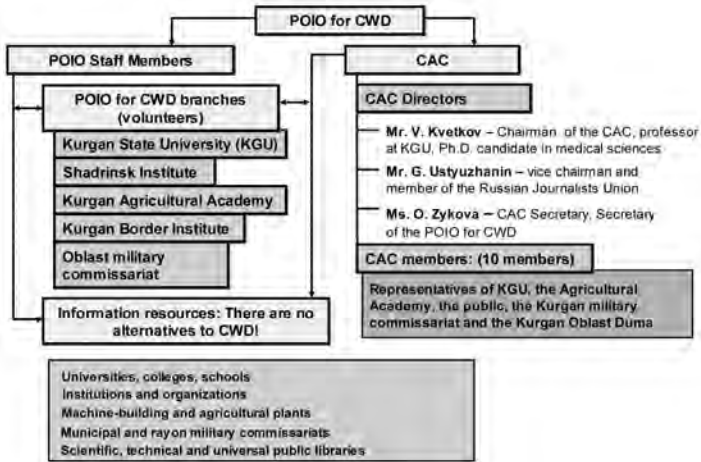


Figure 2. The Organizational Structure of the Kurgan POIO

The need to provide professional development in CWD for staff members of POIO is demonstrated by the level of professional qualities of the people who visit the offices and the participants of large-scale public events (lectures, discussions, etc.) (see Figure 3).

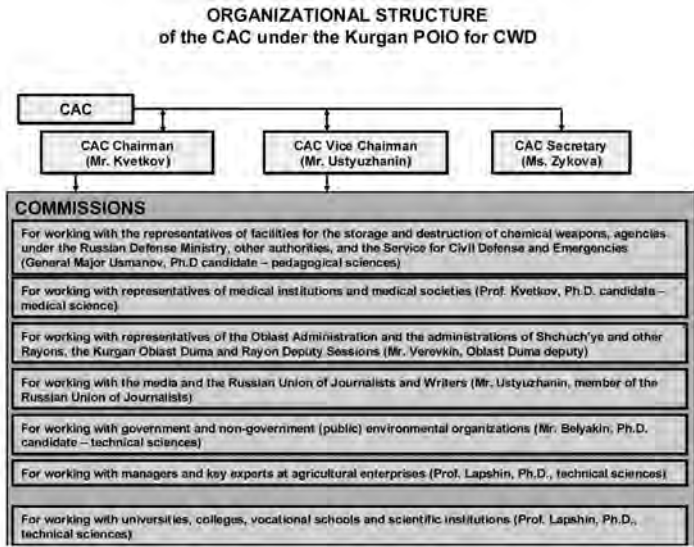


Figure 3. The Structure of a Citizens Advisory Commission (CAC)

There's one example from my own personal experience. For a long period of time (and almost every day), a retiree visited our office. He had spent many years as the Chief Technical Specialist of one of the largest chemical complexes in Kemerovo. His questions forced us to study all of the material about CWD technologies that we had available, and we had to ask the State Research Institute of Organic Chemistry and Technology (GosNIIOKhT) for explanations — specifically Mr. Demidyuk, Mr. Stepanovsky, Mr. Torubarov and Mr. Utkin.

In order to improve their own knowledge, members of our staff have opted to prepare doctorate dissertations on CWD-related topics. By using the POIO's materials, a number of dissertations have been successfully written and defended. Work is nearly done on one dissertation that is totally dedicated to one of the most important aspects of CWD: the analysis and assessment of the social and environmental health of the public in regions affected by CWD. FSB Colonel Kuryerov, a Ph.D. candidate in psychology at the Kurgan Border Institute's division of humanities and socio-economic disciplines, is a member of the Kurgan CAC and works regularly with the Shchuch'ye POIO.

In our experience, "information days" have yielded considerable results in fostering constructive views among the public towards CWD and the CWD facility in Shchuch'ye. We refer to these events as mini-hearings, where military servicemen, representatives of executive and legislative authorities, the public, and anyone who wants to, attend together with a number of local residents.

The mini-hearing dedicated to the tenth anniversary of the CWC and the commencement of construction of the Rayon's CWD facility will take place on November 14th.

High-level officials are involved in the preparations for this event: Mr. Kholstov, the Deputy Head of the Federal Agency on Industry; Mr. Kapashin, the Head of the Federal Department for Safe Storage and Destruction of Chemical Weapons (FUBKhUKhO), Kurgan Oblast government officials, and Green Cross Russia managers. Mr. Bogomolov, the Oblast Governor, also intends to participate in the mini-hearing.

No doubt, explanatory and educational efforts in the Oblast and Rayon media are significant means of helping form a positive attitude toward CWD. Each year, Shchuch'ye holds a seminar for media representatives in the Kurgan and Chelyabinsk Oblasts. This year, the seminar will be held at the same time as the mini-hearing scheduled for November 14. We believe that the high qualifications of the speakers (FUBKhUKhO experts and representatives from Oblast and Rayon authorities) will help those who attend obtain a wide variety of information first-hand (see Figure 4).

The effectiveness of the work of GCR's POIO and the Public Relations Group (PRG) greatly depends on how closely and constructively they can work with the media. Unfortunately, over the past few years, the media has been covering various catastrophes and accidents, including those related to chemical destruction. This kind of scare-tactic reporting develops and maintains (and even adds to) the public's fears and worries primarily regarding environmental problems and the proximity of the population to potentially hazardous facilities (see Figure 5).

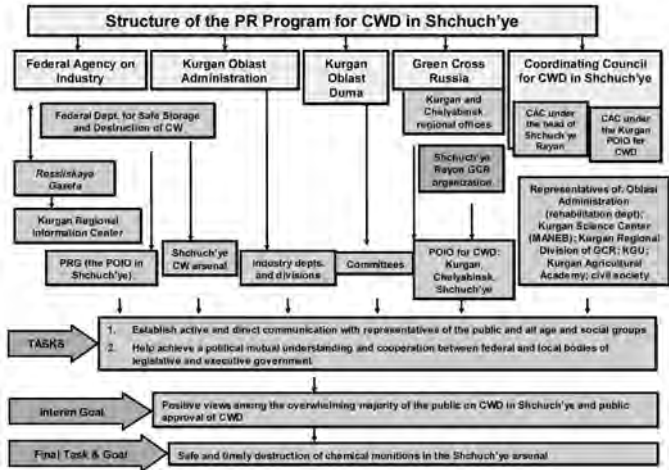


Figure 4. Public Relations Organizations for CWD in Shchuch'ye

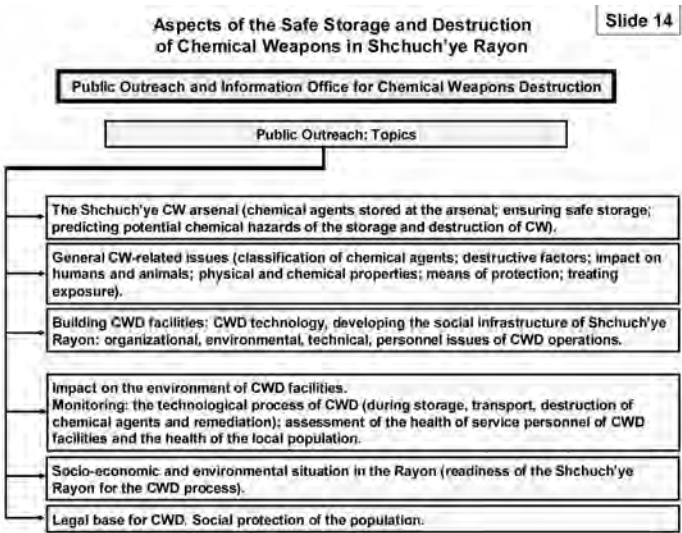


Figure 5. Different Aspects of Safe Storage and Destruction of Chemical Weapons in Shchuch'ye Rayon

It is absolutely natural that CW storage and destruction facilities trigger a negative reaction among the people who live nearby. They exhibit a completely natural desire to protect themselves and their children from the potential degradation of living conditions. But something else is also clear. Although these types of fears are natural, they are not always objective. That is where we come in; it is also the sacred duty of the media, at least in my opinion, to view peoples' fears with understanding and compassion and clearly show what is objective, and what is simply untrue. There is no need to lump CWD with all kinds of everyday problems that have nothing at all to do with it, even though CWD is an important issue.

I really do not agree with the idea that the media, including national outlets, are broadcasting news that “everything is just fine,” and that, just as Ms. Sirota stated, “really irritates the Rayon residents.” It’s still unclear just what is more effective at triggering emotional and psychological tensions in the Rayon: “negative speculations and a buildup of chemophobia,” or a fake and irritating “positive outlook.”

One of the main reasons for socio-psychological problems is a feeling of dissatisfaction and worry that overwhelms all local residents. According to the results of a study conducted by the city’s Institute of Economics, 72% of the public is not employed full-time. What’s more, like in other districts in the Oblast, there are a number of other problems to deal with every day. Special concern has been voiced by the public regarding the adoption of Federal Law No. 122, the so-called “Benefits Monetization Law.” It is known that this law has not only changed the general benefits system for the categories of citizens previously established, it has also resulted in considerable amendments to Federal Law No. 76 — the CWD Law. More precisely, these amendments concerned benefits and compensation payments that were previously envisaged (see Figure 6).

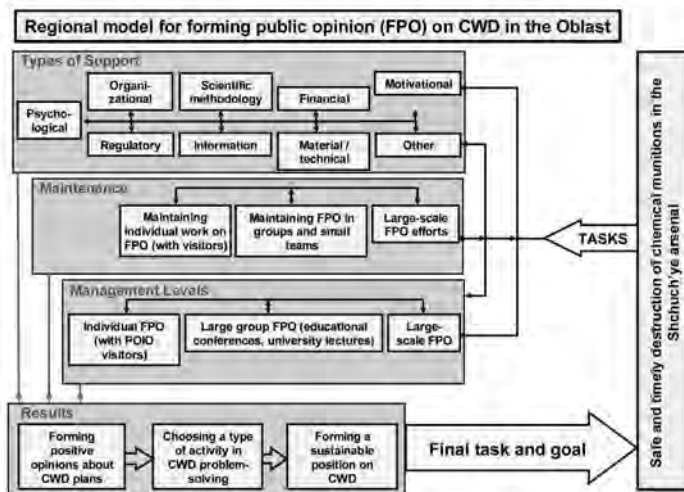


Figure 6. A Regional Model for Public Opinion

Although it's not politically correct to say so, and in my personal opinion, the hostages of the worsening socio-psychological tensions stemming from the Benefits Monetization Law are, strictly speaking, the FUBKhUKhO, the Oblast and Rayon Administration, and public organizations, including the POIO.

The public is dissatisfied with the low quality of social services and the unavailability of services for most of the residents, especially those in rural areas. One significant factor in social and psychological tensions in the district, particularly in Shchuch'ye and in EPZs, is the dissatisfaction with the state of emergency evacuation preparedness in the event of toxic releases from a large quantity of chemical warfare agents (CWA) into the atmosphere. It is under these conditions that public outreach and education is particularly important to help foster constructive, positive views about the construction and operation of CWD facilities.

It's a good thing that most people see the construction of a CWD facility in their area both as a potential threat, and as a possible opportunity to improve the socio-economic and environmental situations. One of the key indicators of POIO activities is the number of visitors and the number of phone calls they receive (see Figure 7).

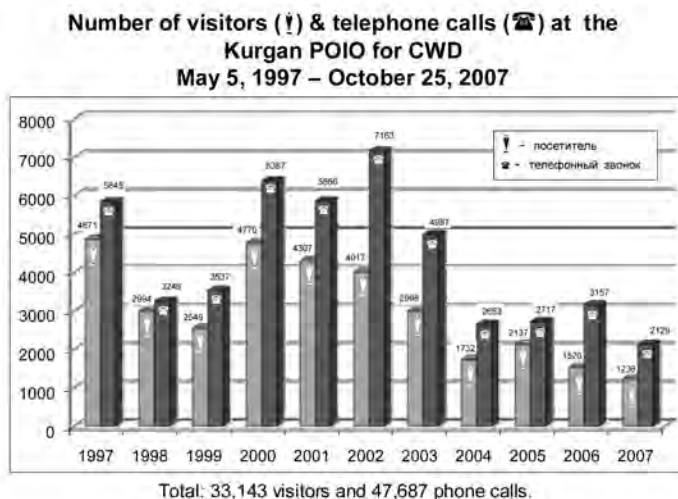


Figure 7. Number of Public Inquiries Made at GCR's POIO

The number of visitors and phone calls reach hundreds each month, confirming that there is definitely public interest in the safe storage of CW and upcoming CWD operations. It also demonstrates the feeling of support and care nurtured by POIO staff and teams. It is a special feeling based on the art of serving our visitors and supporting discussions and communication.

The POIO gives special attention to collaborative efforts with professors, teachers and university students in the Trans Urals, generally at federally accredited institutions of higher education. All universities and educational programs in a number of

fields (chemistry, biology, and public safety) include lectures on CWD. Other important work is carried out by the POIO's Kurgan branch (on a volunteer basis) on-site at a former agricultural academy. In addition to holding lectures on CWD, the premises are used to hold classes on practical matters such as first aid. Role playing exercises are also held here. A full lecture on "Chemical Weapons and Protection against CW" is offered, as a required course, at the Shadrinsky State Pedagogical Institute as part of its Civil Safety program.

The publication of CWD-related literature is another important function of the POIO. Over the course of ten years, the office has published 27 brochures with a total distribution of over 200,000 copies, as well as 56 GCR POIO bulletins and seven Program Manager for Chemical Demilitarization (PMCD) bulletins, which were distributed in over 320,000 copies.

Another positive result from the constructive attitude towards CWD problems is that people are now demonstrating their willingness to directly take part in tackling certain issues. One of these is the development of scientific and practical interest in any possible use of CWD hydrolysate by-products, especially bitumen-salt masses (BSM). The scientists at the Technology and Organization of Construction Division of the Maltsev Kurgan State Agricultural Academy have years of experience in developing waterproofing material using bitumen. They have made preparations for conducting a field road surface study using BSM. This study will be carried out under scientific and technical collaboration with the scientists and experts at GosNIIOKhT, and with approval from and expert participation from FUBKhUKhO, which will act as either study consultant or reviewer.

There is just one catch; they need some necessary amount of BSM to conduct the study. I will take advantage of this opportunity today to appeal to my respected colleague, Mr. Valery Kapashin, with a request. Mr. Kapashin, we would be most grateful if you, in accordance with the regulatory documents that have been forwarded to you, would provide assistance in obtaining BSM for conducting scientific and practical research at our agricultural academy.

In conclusion, public outreach and education efforts for CWD are performed currently by the GCR POIOs in Kurgan, Shchuch'ye and Chelyabinsk, in addition to the Kurgan RIC, which is part of a group of organizations that provide information support for the CWD Federal Target Program (*Rossiiskaya Gazeta*), and the PRG under the military troops at the Shchuch'ye facility.

The teamwork between GCR's centers and the RIC and PRG in Kurgan is mainly limited to the personal contacts of the directors. Effectiveness at all of the POIOs would benefit considerably if they coordinated their activities in a few key areas. The coordinating center could be, for example, an annual seminar (a meeting, roundtable discussion, etc.) with representatives from GCR and FUBKhUKhO.

Of course, closer ties between the Kurgan, Shchuch'ye and Chelyabinsk GCR POIOs and the Shchuch'ye CWD facility PRG and their active position on increasing contacts with the public and involving a wide range of social groups will help form more effectively productive views of the construction and operation of CWD facilities.

Public Relations Group's Public Outreach Efforts Pending the 2008 Launch of the Chemical Weapons Destruction Plant in Leonidovka, the Penza Oblast



Sergey Palamarchuk
Head, Public Relations Group, Leonidovka Arsenal

Dear ladies and gentlemen,

Ever since the Public Relations Group (PRG) was created in 1999 it has been sharing space with the Green Cross Russia (GCR) Penza Public Outreach and Information Office (POIO), which is very beneficial for both organizations. Such close cooperation and mutual assistance between an NGO and a government entity has had a big impact in shaping a positive public opinion of chemical weapons destruction (CWD).

PRG's objectives include: shaping a positive public opinion of CW storage and destruction in regions where CWD facilities are located; ensuring comprehensive and objective coverage of CWD in mass media, using all manner of methods for informing the public on CWD topics, including explanation of regulatory legislation; and engaging Rayon administrations, the governments of the constituents of the Russian Federation where CWD facilities are located, regional media outlets, civic and environmental organizations and alliances in addressing the issue of CWD.

The PRG's main activities in 2007 included: gatherings, roundtable discussions, lectures, and other events involving direct interaction with the audience as well as opportunities to answer questions about the safety of CW storage and the destruction process and to inform the public about any extraordinary situations at the facility. It also provided for the discussion of legal matters, in addition to presenting slide shows and informational videos on CWD, and of environmental concerns in connection with the operation of the CWD facility.

In 2007, the PRG:

- Distributed 1,000 copies of a brochure on CWD Technologies in Leonidovka to residents of Leonidovka and Zolotarevka, as well as to PRG visitors.
- Developed and distributed to the residents of Leonidovka and Zolotaryovka and to PRG visitors nine issues of informational bulletins with a total circulation of 15,000 copies. The bulletins provided answers to questions submitted by residents divided into the following topics: *Answers to Public Inquiries Concerning the Development of Social Infrastructure; A Farewell to Chemical Weapons; Seventy Years of Protecting Peace and Security; Completion of Stage Two; Monitoring the Health of CWD Facility Workers and Residents in the Emergency Planning Zone; The Need for Chemical Weapons Destruction; The Fifteenth Anniversary of the Federal Department for Safe Storage and*

Destruction of Chemical Weapons; Building the EPZ Social Infrastructure; and a conference-call question-and-answer session Ensuring the Safety of the CWD Facility with a Monitoring and Control System.

The PRG organized the following events:

- 01/06/07: Sergey Palamarchuk, Head of the Public Relations Group, gave a lecture at the Military Unit 21222 museum about the history of CWD, which was attended by members of Rovesnik, a club for senior citizens.
- 01/28/07: Together with Military Unit 21222, PRG organized a drawing contest for children living in the EPZ entitled “Our Land through a Child’s Eyes,” and dedicated to the Fatherland Defenders Day and the CWD effort in the Penza Oblast.
- 03/23/07: PRG made a presentation at a Zolotaryovka residents’ meeting entitled “The Future of Social Infrastructure Development in Zolotaryovka in 2007.”
- 04/22/07: PRG organized a visit to a springtime event, called Awake, at the Penza zoo, for the children of military servicemen from facility 1206.
- 05/10/07: PRG organized and hosted the event “We Remember and We Are Proud” for veterans from Rovesnik to meet with military representatives.
- 05/22/07: PRG participated in a seminar organized by GCR for leaders of Oblast institutions. The topics of CW storage, the construction of CWD facility 1206, and environmental safety around the CW storage facility for local residents were discussed.
- 06/07/07: Sergey Palamarchuk, Head of the Public Relations Group, made a presentation at a meeting of Vozroshdeniye residents titled “Development of Social Infrastructure.”
- 06/14/07–06/15/07: PRG engineer Ms. Urusova made opening remarks at the 13th Annual Forum of Young Friends of Nature and School Ranger Program Participants.
- 07/13/07: The PRG participated in a press conference given by the CWD facility management for mass media regarding matters in connection with the construction of the CWD facility and the development of social infrastructure.
- Produced the film “Chemical Weapons Storage and Destruction Facility 1206” and a video titled “The Federal Department for Safe Storage and Destruction of Chemical Weapons Celebrates its 15th Anniversary.”
- Developed and published a brochure for participants of training conducted by the FSB, Ministry of the Interior, and the Federal Department in 09/13/07 for prevention of terrorist acts against the CW storage and destruction facility.

I want to highlight the fact that the creation of Regional Information Centers (RICs) and the inter-regional information center in Saratov played a highly valuable role in public outreach efforts for CWD in Russia and in the Penza Oblast. Professional journalists from these information centers have been enormously helpful to the PRG and

are more accomplished at fulfilling the task of shaping a positive public attitude toward CWD. They organized highly professional live call-in question-and-answer sessions, roundtable discussions, and informational storyboards on CWD topics. We have found that call-in question-and-answer sessions and roundtable discussions conducted with the participation of representatives from the Federal Department, the CWD facility, local government officials, as well as local scientists, and community leaders, to be particularly valuable. It is more convincing to hear your questions immediately answered by the Deputy Chairman of the Oblast or by the Head of the Federal Department or another person in a leadership position than reading a handout or an article in the newspaper. Our experience with collaborative work shows that the most important rule is to give people truthful information, not make promises we can't keep and not to provide unverified information. People care most about what benefits they will get from living close to hazardous facilities and that the Federal Government fulfills all of its responsibilities.

I am pleased to note that there are no particularly high tensions in connection with the construction of the facility or the upcoming launch of operations in May 2008. We have learned from question-and-answer sessions and community meetings that residents are primarily concerned with social issues (70%) and safe CW storage and destruction (15%), and the rest of the questions are about the technology and health and environmental protection.

In conclusion, I would like to say a word about publications in the Oblast and national mass media. The occasional articles written by careless reporters who do not have a solid understanding of CWD issues or the ability to identify bad facts from the good, do nothing but fan the flames of negativity surrounding CWD. These articles increase the ratings of their respective publications and of the so-called journalist. I admit that their articles do contain a grain of truth, but reader beware if the author claims that everything is wrong with chemical disarmament in Russia. Nonetheless, I doubt that such sensationalist pronouncements will succeed in significantly swaying public opinion on CWD in Russia in general, or in Leonidovka in particular.

Thank you.

Public Outreach: A Key Component of the Chemical Weapons Destruction Program



Tamara Ashikhmina
President, Green Cross Kirov Public Outreach and
Information Office

Dear conference participants!

I would like to start by recognizing, on behalf of the Russian scientific community and the public, the constructive and thorough approach taken by our country in fulfilling its responsibilities under the Chemical Weapons Convention.

After Russia signed the Convention in 1993, the Russian Federal Target Program (FTP) for the Destruction of Chemical Weapons Stockpiles in the Russian Federation was introduced in March 1996, and in May 1997, the Federal CWD Law was passed. On November 5, 1997 Russia ratified the Convention and became one of its full-fledged participants. On that same note, the Duma passed a federal law to ratify the Convention. Later, decisions were made at the regional level regarding the implementation of the FTP.

Despite significant economic challenges during the transition period and strict deadlines set by the Convention, Russia is trying to fulfill its responsibilities. As it was already mentioned earlier, three new CWD facilities are now operating in Russia, and by April 29, 2007 they had destroyed 20% of the CW arsenal. One of these three facilities is the Maradykovsky plant, which has been operating for the last two years in the Orichev Rayon of the Kirov Oblast.

In line with the requirements of the Federal Department for Safe Storage and Destruction of Chemical Weapons (FUBKhUKhO), the State Scientific Research Institute for Environmental Industry (GosNIIEP) in Saratov was contracted to set up State Environmental Control and Monitoring Regional Centers (SECMRCs) in all regions that ensure environmental monitoring at CWD facilities. Each of them has three components: a central environmental testing and analysis laboratory, a biotesting and bioindication laboratory, and an information and analysis center, all of which are well staffed and fairly well equipped.

In addition to the large volume of work done by the staff at these centers to meet state environmental control and monitoring requirements (see Table 1), the centers are also involved in conducting a multidisciplinary informational campaign with the residents, the general public, reporters, young adults, and school children.

Table 1. State Environmental Control and Monitoring Indicators for 2005–2007.

		2005	2006	2007 S1	2007 Q3	Total
1	Air	-	137/485	94/252	55/83	286/826
	Air at waste storage sites	-	-	-	-	2/3
2	Industrial emissions	-	10/10	29/36	14/14	53/60
3	Soil	168/531	214/3337	81/1210	111/885	574/5963
	Soil at waste storage sites	-	-	-	2/5	2/5
4	Sediment	21/21	11/176	6/84	10/49	48/330
5	Natural water	33/36	174/3317	170/2346	84/1897	461/7596
	Surface water	-	49/1066	22/266	20/395	91/1727
	Service wells	-	41/792	28/322	21/434	90/1548
	Monitoring wells	-	45/828	22/374	26/644	93/1846
	Monitoring wells at waste storage sites	-	-	-	1/29	1/29
	Drinking water wells	-	33/613	10/160	12/318	55/1091
	Surface runoff	-	6/18	3/51	5/106	14/175
6	Snow cover	12/36	77/1001	33/541	-	122/1578
7	Mirny wastewater treatment plant output	-	2/22	1/25	1/19	4/66
	Total	234/624	627/8370	414/4494	275/2947	1550/16435

We encountered the greatest challenges at the initial stages of the information campaign, when the local population was alarmed by the close proximity of the CWD facility to their communities and the inadequacy of the health protection zone (HPZ) defined by the Chief Sanitary Inspector of Russia. Some cast doubt on the feasibility studies conducted in preparation for the construction of the CWD facility and many other doubts were voiced.

Today, the SECMRCs have developed a variety of creative methods for their information campaign together with environmental protection agencies, civic organizations, municipal government leadership, and different population categories.

We continued to conduct an active information campaign with the public during the first year the CWD facility was in operation. Notably, government authorities, all environmental protection agencies, Civil Defense and Emergencies services, military experts, scientists, NGOs, and the media presented a united front. This important achievement was entirely the work of the government of the Kirov Oblast, which has been diligent in its pursuit of a more effective working relationship with a number of organizations and institutions involved in ensuring the safety of the CWD process. The authorities set up an active committee to oversee the joint efforts of organizations, government entities, and local authorities. It regularly organized public meetings and roundtable discussions, published bulletins, and produced radio broadcasts and reports discussing CWD safety. The Commander of Military Unit No. 1205 held monthly meetings with local residents, the general public, and reporters.

In October 2006, with the participation of the FUBKhUKhO, the governments of the Kirov Oblast and GCR organized the first regional conference at the Vyatsk State Humanities University with international participants in attendance. The objective discussion focused on ensuring safe destruction of the highly toxic agents located at the Maradykovsky facility.

The State Environmental Control and Monitoring Regional Center for the Kirov Oblast maintains a reception desk to serve the public. The Kirov GCR POIO hosts the

meetings of the Citizens Advisory Commission (CAC), which includes scientists and journalists, and organizes seminars with teachers and the media.

The offices of GCR POIO and the public outreach group of the FUBKhUKhO in Mirny regularly host meetings and discussions with the public, as well as information days, which coincide with self-defense training sessions offered by Civil Defense and Emergencies services. The offices also publish informational bulletins.

A special report is published on a quarterly basis as a supplement to the newspaper *Izvestiya* by GosNIIEP, the prime contractor overseeing state environmental control and monitoring efforts. The report is based on the materials from State Environmental Control and Monitoring Regional Centers.

The information campaign to form a positive public opinion toward chemical disarmament involves the joint efforts of a variety of NGOs and media outlets. These include:

- All-Russian Congress on Environmental Protection;
- Citizens Advisory Committee;
- GCR Kirov POIO;
- GCR Mirny POIO;
- *Rossiiskaya Gazeta* and *Izvestiya*;
- ITAR-TASS, a Russian news agency;
- *Kirovskaya Pravda* and *Vyatskii Krai*, local newspapers;
- Television and radio broadcast services in Kirov and the Oblast;
- The Kirov Oblast Herzen Public Library and the interlibrary district fund;
- Environmental sciences departments at city universities and the institute for continuing professional education;
- Biomonitoring laboratory at the Vyatsk State Humanities University;
- Oblast educational center for environmental sciences and biology and the natural sciences academy;
- Orichev and Kotel'nich district schools.

A variety of activities are held with the participation of the above organizations, including public project assessments, scientific conferences, forums, roundtable discussions, seminars with teachers and journalists, panel sessions for the scientific community, publication of special supplements to newspapers, individual articles, radio programs, thesis papers by university students, "Know Your Region" projects for schoolchildren, research papers, competitions for best drawing or art project, and many others.

The SECMRC regularly publish informational bulletins about their activities and environmental monitoring findings. The Center's staff has published articles in the local newspapers *Vyatskii Krai* and *Kirovskaya Pravda*. The Kirov GCR POIO publishes a regular feature in the Orichev district newspaper.

Together with the editors of *Rossiiskaya Gazeta*, the Center prepared a special edition of *Theoretical and Applied Ecology*, dedicated to the tenth anniversary of Russia's ratification of the Convention. In 2008, we have planned to publish a special report titled "Structuring Environmental Control and Monitoring Systems at Russian CWD Facilities," and in 2009, we are planning a publication on the third stage of Russia's chemical weapons destruction program under the Convention.

The GCR POIOs in Kirov and Mirny publish accessible subject-specific brochures and bulletins for use in their public outreach activities. The information campaign at the local level is carried out by the staff of the information and analysis divisions of the State Environmental Control and Monitoring Regional Centers, the CWD facility public relations groups, the GCR POIOs, and the media.

Our experience shows that in order to address the complex topic of chemical disarmament, it is extremely important and necessary that military experts, government authorities, environmental protection agencies, scientists and journalists work together instead of being confrontational. The SECMRC have proved their worth and we need to continue developing and improving them.

To summarize, the first stage of operations at the CWD facility in Vyatsk has been completed. We are entering the second stage, which includes reaction mass (hydrolysate) processing and the destruction of other organophosphorous compounds, such as sarin and soman, as well as arsenic and sulfur-based compounds containing mustard and lewisite. The work ahead brings even more responsibility. Our experience from the first year demonstrated that our ability to successfully overcome our Cold War legacy is in large part dependent on the professional cooperation and partnership of all the agencies and organizations responsible for the process.

Before I conclude this presentation, I want to thank the leadership of Green Cross Russia and Green Cross Switzerland for their constructive partnership, sponsorship of Dialogues such as this one, scientific conferences on environmental education, financial support of the work of the POIOs, children's summer camps, and school environmental research projects. I am confident that this partnership will continue to flourish and will grow stronger through new projects.

Challenges to Safe and Timely Destruction of Chemical Weapons Arsenals



Paul F. Walker
Legacy Program Director
Global Green USA

This paper will provide an up-to-date overview of the successes and challenges in eliminating chemical weapons (CW) stockpiles in both the United States and Russia today. It will provide an introduction to the declared CW arsenals in each country, current estimated figures for tonnage destroyed to date, and a discussion of some selected major problems each demilitarization program has faced over the past decade or more. It will also offer solutions and recommendations for expediting both national programs as both the U.S. and Russia face the final 2012 abolition deadline in the Chemical Weapons Convention (CWC).

In discussing chemical weapons demilitarization in both major possessor states, I must first issue a disclaimer, that is, that I speak only for myself and the “Legacy of the Cold War Program” (otherwise known as the “Legacy Program”) of Global Green USA and Green Cross; I do not speak for either the U.S. or Russian governments, nor for any contractor or the Organization for the Prohibition of Chemical Weapons (OPCW). It is interesting to note that the U.S. Cooperative Threat Reduction (CTR) Program has once again declined to participate in this National Dialogue, but I am delighted to see the directors of both the US and Russian chemical weapons destruction programs, Dale Ormond and Viktor Kholstov, participating in our dialogue.

Let me also express my gratitude to my colleagues at Green Cross Russia and Green Cross Switzerland, especially our chairman, Dr. Sergei Baranovsky, for helping organize our ninth annual forum here in Moscow.

Green Cross/Global Green Legacy Program

But let me first provide a brief background on the Legacy Program and our efforts in chemical weapons destruction programs. As many of you are aware, the Legacy Program is one of the first international programs of Green Cross International (GCI) founded by former Soviet President Mikhail Gorbachev and colleagues from five countries – Japan, The Netherlands, Russia, Switzerland, and the United States – in 1993. The main goal of the Legacy Program is the abolition of all weapons of mass destruction; in pursuing this lofty goal, we have advocated, mediated, and facilitated safe and sound weapons demilitarization and cleanup programs since 1994. Our efforts, although focused on the U.S. and Russia, have also involved work at the international level, and at national, regional, and local levels in a number of countries.

The Legacy Program is an international collaborative effort of primarily three Green Cross affiliates – Global Green USA, Green Cross Switzerland, and Green Cross Russia. The Program manages twelve public outreach and information offices

at weapons stockpile sites in Russia today, including all CW stockpile sites except for Gorny in the Saratov Oblast, and our newest office in Severodvinsk concerning nuclear submarine dismantlement. Our model for public facilitation of these disarmament and nonproliferation programs also involves annual major forums and dialogues in Washington DC and Moscow. We also undertake a variety of educational and humanitarian efforts aimed at local citizens, families, children, and communities as well as at political elites in the national capitals in both the U.S. and Russia. Our general operating theme as an international environmental non-governmental organization (NGO) is “cooperation, not confrontation,” and we seek to promote transparency, dialogue, and full stakeholder involvement in all of our efforts in order to reach consensus on these very contentious and difficult weapons destruction and toxic waste remediation projects.¹

Declared Chemical Weapons Stockpiles

Six States Parties to the Chemical Weapons Convention have declared chemical weapons stockpiles today. Two of these – the United States and Russia – comprise about 98% of the total declared tonnage. These two stockpiles are the primary focus of this paper.

● Russia	–	41,757 metric tons
● U.S.	–	28,575 metric tons
● India	–	1,044 metric tons (estimated)
● South Korea	–	400 metric tons (estimated)
● Albania	–	16 metric tons
● Libya	–	24 metric tons

One must be careful about these figures in a couple of ways. First, the U.S. generally cites 31,495 tons as its declared CW stockpile, but this is U.S. (rather than metric) tonnage; it will also cite the figure of 30,609 U.S. tons at CWC Entry into Force in 1997 as well. The figure of 28,575 metric tons noted above is the 31,495 U.S. tons in metric numbers. Also, both India and South Korea (which claims confidentiality under the CWC and is usually referred to as “the other State Party” at the OPCW) have refused to divulge the size of their CW arsenals publicly, so the above figures are rough estimates. Some analysts report a South Korean CW stockpile of 1,000 metric tons or more.

The U.S. CW stockpile was located at nine large arsenals in eight states and Johnston Atoll in the Pacific Ocean. These stockpiles varied in both composition and size, comprised of a wide variety of weapons types and chemical agents, and ranging in tonnage from about 600 tons (Blue Grass, Kentucky) to over 14,000 tons (Tooele, Utah).

The Russian CW stockpile, located at seven large arsenals in five Oblasts and the Udmurt Republic, is more homogeneous in weapons and agents and does not usually include energetics and propellants, thereby simplifying the destruction process. The size of the Russian stockpiles also varies much less than in the U.S., with six of the seven stockpiles holding between 14% and 19% of the total arsenal.

CW Destruction Progress

¹ For additional information on Legacy Program activities, see the websites of Global Green USA, www.globalgreen.org; Green Cross Switzerland, www.greencross.ch; and Green Cross Russia, www.green-cross.ru. The Green Cross International website is www.gci.ch, and the Legacy Program news site is <http://news.greencross.ch>.

Of some 72,000 metric tons (MT) of chemical weapons declared to the OPCW to date, about one-third of this enormous and deadly arsenal is now destroyed. The U.S., which has been actively eliminating its CW arsenal for some 17 years now, has destroyed over 14,000 tons, while Russia has neutralized over 8,000 tons.

● Russia	–	8,463 MT destroyed (20%)
● U.S.	–	14,200 UST destroyed (46%)
● India	–	795 MT destroyed (76%)
● South Korea	–	332 MT destroyed (83%)
● Albania	–	16 MT destroyed (100%)
● Libya	–	0 MT destroyed (0%)

Regarding the Russian program, the arsenal at Gornyy in the Saratov Oblast, the smallest of Russia's seven stockpiles with 1,143 metric tons of lewisite, mustard, and mustard-lewisite mixtures, was neutralized over an operating period of three years from December 2002 to December 2005. While the OPCW has credited Russia with destruction, the resultant hydrolyzed liquid mixture (what Russia calls the "reaction mass") still awaits second-stage treatment. The second stockpile to begin neutralization was Kambarka in the Udmurt Republic, holding some 6,349 metric tons. From December 2005 to August 2007 some 3,941 tons of lewisite have been neutralized. And the third operating plant opened about one year ago in September 2006 at Maradykovsky in the Kirov Oblast; to date about 3,379 tons of nerve agents have been neutralized, almost half of the stockpile. The Kambarka and Maradykovsky plants will operate until 2009 and 2010 respectively, according to Russian schedules.

The four remaining Russian CW stockpiles at Shchuch'ye, Pochep, Leonidovka, and Kizner are scheduled to open between 2008 and 2009. Russia plans that all of these will finish operations by April 2012, the final CWC deadline for full stockpile destruction. Facility construction has however only been ongoing at Shchuch'ye which formally started major construction in March 2003; to date about 50% of the neutralization and bituminization plant at Shchuch'ye has been constructed, far behind schedule due to breakdowns in Russian-U.S. cooperation in the last 2-3 years under the Cooperative Threat Reduction (CTR) Program.

The Russian CW destruction schedule, that is, to complete full destruction of its 40,000 tons of declared chemical weapons by April 2012, would appear quite unrealistic now. The Shchuch'ye facility, for example, has been under construction for over four years, not including several years of pre-construction (tree cutting, site preparation, and water drainage), and still remains only 50% finished. Should Russia, which has just agreed with the United States Cooperative Threat Reduction Program to take over all subcontracting on the construction site, finish construction in another 1-2 years, and begin operations by mid-2009, it will have a maximum through-put rate of about 1,600 tons per year. Assuming no major disruptions in operations, the 5,400-ton stockpile will take approximately 41 months to destroy; this would bring Russia to 2013, in the best of cases.

Another major issue with Russian destruction efforts is the "end-point of destruction," that is, at what point can the OPCW declare the chemical weapons and agents fully destroyed under the Chemical Weapons Convention? This question has arisen recently in the destruction of nerve agents at Maradykovsky where the OPCW

has agreed, in a site-specific verification agreement with Russia, to credit Russia with destruction after the first-stage neutralization process. However, Russia must still destroy the hydrolysate or liquid reaction masses which contain small amounts of precursor chemicals, and the metal bombs themselves; these legally-required second-stage processes have yet to take place due to reported delays in getting a liquid incinerator to operate. Because of this delay, the OPCW Executive Council has yet to ratify the OPCW-Russia verification agreement, although the OPCW has publicly acknowledged that Russia met its 20% destruction deadline in April 2007.

The United States decided well over two decades ago to unilaterally destroy its chemical weapons stockpiles and began operating its first prototype incinerator on Johnston Atoll, about 750 miles west of Hawaii in the Pacific Ocean, in 1990. Because of this early start in its destruction process, seven years before Entry into Force of the CWC, the U.S. has been able to eliminate almost half of its arsenal by 2007. Two stockpiles – Johnston Atoll and Aberdeen, Maryland – have been fully destroyed by 2000 and 2007 respectively, and another five facilities are operating. Two remaining sites – Pueblo, Colorado and Blue Grass, Kentucky – are just beginning pre-construction due to funding cutbacks in recent years.

Of the nine CW stockpile sites in the U.S., only three are scheduled to finish operations by 2012 – the two which are now closed, plus Newport, Indiana. The remaining six are scheduled to close from 2016 to 2023 according to current U.S. Army planning. These dates could still shift forwards or backwards, depending on funding profiles and politics, but it remains clear now that the United States will not meet the 2012 deadline of the CWC.²

Of the remaining four declared possessor states, Albania has finished destruction of its small CW stockpile of 16 tons in July 2007, making it the first declared state to finish, albeit two months after its April 2007 CWC deadline. Both India and South Korea have made good progress, having now eliminated the great majority of their stockpiles; India has set an April 29, 2009 deadline under the CWC, and South Korea December 31, 2008 deadline. Neither of these destruction programs, however, has been publicly transparent, so it remains difficult to judge how well the operations have gone. Libya, which has destroyed its CWC Schedule 2 chemicals, has received a CWC extension until December 31, 2010.

Successes in CW Elimination

There are many accomplishments to cite in evaluating the past of chemical weapons abolition. By my count, at least 22,663 metric tons or more have now been eliminated from the world's declared CW stockpiles; this represents almost one-third of CW stockpiles, and about 1,300 tons annually since the U.S. first fired up its prototype incinerator in 1990 on Johnston Atoll. This is clearly a major accomplishment in nonproliferation and demilitarization globally, and a major success for implementation of the Chemical Weapons Convention.

² Former Secretary of Defense Donald Rumsfeld wrote Congress on April 10, 2006 stating that the CW destruction program would not finish by 2012. "I have determined that the United States will not be able to meet even the extended destruction deadline. Current estimates indicate approximately 66 percent of the declared chemical weapons stockpile will be destroyed by April 2012." More recently, the U.S. Senate has drafted legislation for fiscal year 2008 which obligates the U.S. to finishing by 2017, six years ahead of the Army-projected date of 2023.

Ten expensive and complex destruction facilities – both incinerators and neutralization plants – have now been constructed in the U.S. and Russia, with another three or more in Albania, India, and South Korea. Six more are under construction or in engineering planning in the U.S. and Russia, and both Libya and India are constructing facilities as well.

Important to note is that there have been no known major accidents and no known deaths due to agent releases at the stockpiles or destruction facilities to date. While there have been minor agent leaks from stockpiles and agent releases from destruction facilities, as well as some worker injuries and deaths from industrial construction work, all of the existing CW destruction plants would appear to have operated quite safely. Questions remain about longer-term public health and environmental impacts, especially from gaseous releases from incinerator smokestacks in the U.S. and from second-stage liquid waste treatments in Russia, but these may not be well known for years after operations have ceased. And concerns have been raised at local Russian communities adjacent to CW stockpiles and facilities about inadequacies in emergency preparedness and evacuation procedures; we know, for example, that both Kambarka and Maradykovsky facilities were started before emergency preparedness planning was finished.³

Another point which needs emphasis is the fact that well over \$20 billion has been committed to date by the U.S., Russia, and the G-8 Global Partnership for chemical weapons destruction. The abolition of chemical weapons globally has turned out to be much more expensive than anyone planned. U.S. estimates twenty years ago were in the range of \$2 billion, but this was before transportation of chemical weapons and agents was banned by the U.S. Congress; current program estimates for the U.S. program are approaching \$40 billion. Russian estimates, which originally were \$2-3 billion, are now approaching \$7 billion and will likely go higher for the Russian program.

A final point of success worth noting is the fact that the OPCW has inspected all demilitarization operations and verified all agent and weapons destruction since 1997. As former U.S. President Ronald Reagan once said, “trust but verify.”

Continuing Challenges in CW Demilitarization

The first major challenge is the fact that almost 50,000 tons of chemical weapons still remain to be destroyed. Although good progress has been made by all declared possessor states to date, the remaining tonnage is double what has been eliminated to date. While the original CWC deadline of April 2007 for complete destruction – ten years after Entry into Force in April 1997 – was recognized several years ago as unrealistic for five of the six possessor states, the new deadline of April 2012 will likewise be very difficult for both the U.S. and Russia to meet. With 50,000 tons remaining, this will require some 10,000 tons annually to be destroyed over the next five years; this is 7-8 times the annual average in past years. While more destruction facilities are coming on line every year, this is an impossible task; it is likely, from my perspective, that both the U.S. and Russia will require another five years – until 2017 – to complete operations.⁴

³ Article IV, paragraph 10 of the CWC states that “Each 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.”

Funding remains an important challenge as well. The U.S. program for chemical weapons destruction has been funded at \$1.4-1.5 billion for the past few years, but this still remains several hundred million dollars under-funded. After the terrorist attacks in 2001, the U.S. Chemical Materials Agency which oversees chemical weapons demilitarization in the U.S., acknowledged the vulnerability of some stockpiles to terrorist attack and asked for accelerated schedules for eliminating its CW stockpiles. If these accelerated schedules had been implemented, the U.S. may have been able to meet the 2012 CWC deadline. However, the start of the Iraq war in 2003 greatly limited funding for non-war-related programs in the annual defense budget, so all accelerated construction plans were stopped. Because of this, the U.S. schedule for chemical weapons destruction stretched to 2023; annual costs were kept under \$1.5 billion, but long-term program costs escalated further to well over \$35 billion and climbing.⁵

Russia, which publicly voiced concern over the potential cost of CW demilitarization in 1993 and 1997 when it signed and ratified the CWC, has been very slow to adequately fund its program. Throughout the 1990s and early 2000s, Russian funding was well under \$100 million annually. Only in the past few years has it expanded funding, with 18 billion rubles committed in 2006 (about \$640 million) and 26 billion rubles (about \$1 billion) in 2007. Russia also remains concerned that the \$1.7 billion in pledges from the G-8 Global Partnership have not yet been fulfilled, with only about 25% having been contributed to date. As a spokesman for the Russian Foreign Ministry stated in our 2006 National Dialogue, “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.”⁶

A third major challenge is politics. The construction and operation of these large, expensive, and dangerous industrial facilities have elicited many questions from state regulators and governors, citizens and environmentalists, public health officials, and other stakeholders regarding potential impacts on the environment and public health, on local families and communities in the event of an accident, and on the socio-economic status of the region. The contentious and time-consuming nature of these issues was apparently grossly underestimated by diplomats drafting the CWC and has led to large increases in both schedule and cost. There have been legal suits filed by opponents of the U.S. Army plan at practically every stockpile site, especially with regard to choice of destruction technology. In Russia, a class-action legal suit has been brought by citizens in the Kurgan Region against the Russian Federal Agency of Industry alleging federal failure to meet legal obligations for local infrastructure improvements.

In the United States one of the most recent legal cases involved a suit by several environmental organizations and citizens against the U.S. Army for shipping neutralized VX nerve agent from Newport, Indiana to Port Arthur, Texas for second-stage incineration. The Army had sought in recent years to ship the neutralized VX waste

⁴ Russia still remains publicly committed to meeting the 2012 deadline, but the United States publicly acknowledged last year that it would not be able to finish by 2012. One might note that both countries were adamant 3-4 years ago that they would meet the original 2007 deadline.

⁵ The U.S. Senate has recently added some \$50 million in the FY08 military budget to help accelerate construction at the two last CW stockpile sites – Pueblo, Colorado and Blue Grass, Kentucky.

⁶ See V. Biryukov, “The G-8 Global Partnership and Chemical Weapons Destruction in Russia,” in Green Cross Russia, National Dialogue Forum (Moscow: Publishing House NP, 2007), pp. 30-33.

to industrial waste treatment facilities in Dayton, Ohio and subsequently to Dupont Chambers Works in Delaware. Both of these proposals, after several years of efforts, were stopped by local and state opposition. In early April 2007, without public input or discussion, the Army signed a contract with Veolia Environmental Services of Port Arthur, Texas for incineration of the VX hydrolysate and began shipping 4,000-gallon containers by truck across eight states and about 1,000 miles on April 23, 2007. The legal challenge stopped shipments in mid-June after about 100 trucks had successfully reached Texas. Shipments resumed six weeks later after a federal judge found in favor of the Army, but a new legal challenge is about to be filed.

The U.S. Army argues that shipping VX hydrolysate off-site for final treatment, rather than treating it on-site at Newport, Indiana, will save both time and money. However, environmental opponents point out that the original plan agreed to by all was for on-site treatment, thereby eliminating any risks of accidents over the shipment route. Because of this current difficult situation, and the lack of trust it has now engendered between the Army and local communities, it is now likely that off-site shipment will be impossible at two additional stockpile sites – Pueblo, Colorado and Blue Grass, Kentucky – thereby likely increasing costs and lengthening schedules.

Thus strong differences of opinion and interpretation about the safety of CW destruction and toxic waste management processes can inhibit cost-efficient implementation of demilitarization plans and have serious impact on both schedule and cost.

Lessons Learned in Chemical Weapons Demilitarization

Many lessons can be – and have been – learned from the past decade of chemical weapons destruction. I will try to briefly note a few of the more critical ones here.

First, adequate financing is necessary for chemical weapons destruction programs to be successful and timely. The U.S., as noted earlier, has been under-funding its last two construction efforts at Pueblo, Colorado and Blue Grass, Kentucky after having halted facility design work in 2004. The focus of the U.S. Defense Department shifted from one of schedule to a combination of cost, schedule, and performance. But in trying to save funds up-front, the U.S. lost its chance to eliminate the stockpile earlier, thereby reducing longer-term risks to the local community, and meeting its CWC 2012 deadline. Senator Mitch McConnell from Kentucky has been successful this year in adding additional funding for these last two stockpile sites and has also established a new deadline – 2017 – for finishing destruction; he stated that “without a firm deadline, DoD [the Department of Defense] will continue to drag its feet. This is unacceptable to me and to the people of Madison County.”⁷

Similarly, the U.S. has also stopped funding its construction project in Russia at the Shchuch’ye CW stockpile in the Kurgan Oblast. The U.S. agreed to build a “turnkey facility” for Russia over a decade ago at Shchuch’ye in order to help eliminate its two million nerve-agent-filled artillery shells potentially subject to theft and diversion. Early

⁷ See press releases from Senator Mitch McConnell’s office, September 18 and October 4, 2007, in which he states that “the people living near the Blue Grass Army Depot are at risk because the chemical weapons stored there are the most deadly in the nation. This additional funding will enable the ACWA program to move more quickly toward the safe elimination of the chemical weapons located at the facility.”

project cost estimates were about \$750 million for the U.S. portion of the project; these estimates rose to \$1.039 billion in 2003-2004. Project estimates since that time have shown costs to rise to about \$1.5 billion, however, the U.S. has refused to increase its commitment. In the fiscal year 2008 request to Congress, the Bush Administration zeroed out all funding for further Shchuch'ye construction and asked Russia to take over the project. This breakdown in U.S. support for the construction project has seriously delayed the project and undermined the cooperative U.S.-Russian relations which had been developed up to 2005. General Viktor Kholstov, head of chemical weapons destruction in Russia, stated recently that "Russia's foreign partners have failed to meet their commitments to Russia in chemical weapons destruction. Slow payments by foreign donors have complicated the implementation of our CWD program."⁸

Also important to note is the fact that Russian funding has been too little, too late. A timely Russian program would have required funding of at least \$1 billion annually ten years ago, but Russia apparently felt that this was impossible in the post-Soviet period of socio-economic transition. As pointed out earlier, Russia's funding has just this year approached \$1 billion, a major step forward for accelerating its demilitarization efforts.

The Global Partnership, in addition to U.S. funding delays, has also been very slow to fulfill its pledges made at Kananaskis, Canada in 2002. While at least \$1.7 billion has been pledged for helping Russia with destruction of its CW stockpiles, less than half of this has been spent to date. Some countries such as Italy and France have been particularly remiss in implementing their funding programs in a timely way.⁹

Second, lack of transparency, stakeholder involvement, and consensus-building can delay and damage program implementation. While schedule deadlines and budget limits put pressure on program managers to move as quickly forward as they can, such steps can easily antagonize important stakeholders and ironically cause still further delays. Cost- and time-cutting measures can also endanger lives and the environment if not undertaken very carefully. Thus, U.S. Army efforts to ship neutralized chemical agents off-site have met with strong opposition at both state and local levels. The lack of Russian military attention to emergency preparedness and local infrastructure at stockpile sites has created tense relations with local and regional authorities and citizens, thus also potentially delaying projects. And the failure of the U.S. and Russian governments and contractors to work cooperatively together at the Shchuch'ye construction site has now delayed the project at least two or more years. All of this, of course, has implications for CWC deadlines.

The U.S. Congress has recently recognized the importance of securing and destroying chemical weapons stockpiles and trying to meet the April 2012 deadline. The fiscal year 2008 military spending bill states, for example, that "destroying the remaining stockpile of United States chemical weapons is imperative for public safety and homeland security, and doing so by April 2012, in accordance with the current destruction deadline provided under the Chemical Weapons Convention, is required by United States law."¹⁰

⁸ See National Dialogue Forum, pages 8-13.

⁹ For a recent overview of the G-8 Global Partnership programs, see Paul F. Walker, "The 2002 Group of Eight Summit and the Global Partnership," *Arms Control Today*, September 2007 (vol. 37, no. 7), pp. 47-52.

A third lesson learned is that bilateral and multilateral cooperation in threat reduction and the G-8 Global Partnership is essential for progress in chemical weapons elimination. As noted earlier, the Global Partnership, including the United States, has pledged over \$1.7 billion to help Russia eliminate its chemical weapons. Unfortunately, much of this pledge has not yet been implemented after the first five years of the Partnership. For a variety of reasons, international relations have also not been the best lately between Russia, the U.S., and the Global Partnership. It is critical that these international efforts to rid the world of a whole class of weapons of mass destruction get back on track and all concerned parties return to the cooperative and productive relations which dominated a few years ago.

Conclusion

Let me make four final and concise points regarding chemical weapons destruction:

- It is critically important for global security for CWC States Parties to fully fund and implement their ongoing chemical weapons destruction programs – the U.S., including the Cooperative Threat Reduction Program; Russia; the Global Partnership; and the European Union.
- One shouldn't underestimate public concerns and political power. The need for transparency and stakeholder involvement is critical to project success.
- One must also recognize the inherent tension between cost, schedule, transparency, and safety and commit the time and effort to compromise on these important goals. And,
- Lastly, improvement in U.S.-Russian relations and the Global Partnership is important as well for moving demilitarization programs forward and implementing the Chemical Weapons Convention.

Thank you very much for your kind attention, and I look forward to your questions and discussion.

¹⁰ See S. 1547, FY08 National Defense Authorization Act, which also states that “the elimination of chemical weapons anywhere they exist in the world, and the prevention of their proliferation, is of utmost importance to the national security of the United States.”

The Global Green USA Legacy Program: Successes and Lessons Learned



Cristian Ion
Legacy Program Associate
Global Green USA

This is my first time as a speaker at this Dialogue, and before I start, I would like to say that it is a great honor to be here in front of my Green Cross colleagues and such distinguished guests.

I am sure everybody here is very familiar with the great work done by Green Cross Russia on chemical weapons destruction. I am also sure almost all of you know Paul Walker, but I am not sure many of you are asking what exactly Paul Walker does in Washington, DC. I thought it would be useful to tell you in a few words some of the highlights of the Legacy Program in the United States and internationally.

These efforts are part of a larger program called the Legacy Program, which is a partnership mainly of three Green Cross affiliates: Green Cross Russia, Green Cross Switzerland and Global Green USA, and to a smaller extent: Green Cross Italy, Green Cross France, and Green Cross Canada.

Global Green USA Overview

Please allow me to start by giving you a short overview of Global Green USA (GGUSA), the U.S. affiliate of Green Cross International. Founded in 1994, GGUSA, which was initially named Green Cross USA, but had to change its name due to a copyright conflict, focuses on three areas of work:

- Stemming global climate change by creating green buildings and cities.
- Providing clean, safe drinking water for the 2.4 billion people who lack access to clean water.
- Eliminating weapons of mass destruction that threaten lives and the environment.

GGUSA has around 30 employees, most of them in our headquarters office in Santa Monica, California. A new office was recently opened in New Orleans where we are working with Brad Pitt to build green, low-income housing in the areas most devastated by Hurricanes Katrina and Rita. The Legacy Program, led by Dr. Paul Walker, is run from our Washington, DC office.

Legacy Program Overview

The Legacy Program has been active in both Russia and the United States since 1994. Its mission is complete elimination of weapons of mass destruction in an environmentally sound way, protective of public health.

I would like to read one of the many quotes given by the Director General (DG) of the OPCW that recognizes our work: *“Over many years, Global Green USA and Green Cross have been untiring in their efforts to support the implementation of threat reduction programs at the local, national, and international levels, facilitating progress towards our ultimate goal – the non-proliferation and abolition of all chemical weapons.”* – Amb. Rogelio Pflirter, Legacy Forum, Washington, DC, March 29, 2007.

Legacy Program Goals

The first goal is to secure US and other Global Partnership (GP) funding for Russian weapons of mass destruction (WMD) elimination, in particular for chemical weapons destruction (CWD). As you know, one of the mechanisms by which the United States allocates funding for Russian WMD elimination is through the Cooperative Threat Reduction (CTR) Program run by the US Department of Defense. On CWD, the Americans have allocated a little over \$1 billion for the construction of the Shchuch'ye CWD facility and related projects, but no more money has been requested by the President for the next fiscal year (FY08). However, we believe that this amount is still not enough, and we are working to secure continued US funding for this facility.

Another goal of our program is to secure funding for destruction of the US chemical weapons stockpile. We have worked over the years to make sure Congress allocates enough funding for the US program in order to destroy these weapons on time. In April 2006, former Secretary of Defense Donald Rumsfeld declared publicly that the United States will not be able to reach the 100% destruction deadline by April 29, 2012 as required by the Chemical Weapons Convention (CWC). Based on current funding, it was estimated that the US will destroy its arsenal by 2023, mainly due to a lack of federal funding. The Legacy Program is working to make sure more money is put into the program so this timeframe is reduced by at least 5-6 years.

Furthermore, the Legacy Program has promoted appropriate technologies for destruction. Global Green/Green Cross does not take a preferential stand on technology, but is trying to promote the safest technology for the environment and public health. For example, in the United States, the Legacy Program promoted non-incineration technology for states that opposed incineration. We have also raised hundreds of millions of dollars for research and development for the Assembled Chemical Weapons Alternatives (ACWA) Program for non-incineration technologies. We also had a great role in helping create the ACWA National Dialogue for the 4 sites using non-incineration, which are Newport, Indiana; Aberdeen, Maryland; Blue Grass, Kentucky; and Pueblo, Colorado. In the end, the Legacy Program has had a great role in helping the ACWA program and these states move forward.

Finally, the Legacy Program is working to secure U.S. funding for the Organization for the Prohibition of Chemical Weapons (OPCW). GGUSA is also working this year and in 2008 to make sure that the U.S. will start paying its annual dues to the OPCW on time, and maintain the ability of the OPCW to carry out timely and effective inspections to oversee the destruction of CW stockpiles and activities by the chemical industry. The U.S. has outstanding dues to the OPCW of \$18 million for 2007. The OPCW's annual budget is about \$75 million (FY07), and has a working capital fund of about 12 million Euros. Timely payment of U.S. annual dues to the OPCW is therefore extremely important to prevent unnecessary cash-flow problems and staff cutbacks.

The Legacy Program Model: A “Triangle of Trust”

Operating on the principle of “cooperation, not confrontation,” the Legacy Program facilitates the complex process of demilitarization through education, outreach and dialogue across local, state and national borders.

The Legacy Program model, which has been applied successfully in Russia, the United States and other countries on chemical weapons destruction is fairly simple, but highly efficient. There are three elements that make this process possible and allow for all stakeholder involvement: transparency, accountability and communication.

The Legacy Program has advocated for more transparency and communication among all stakeholders, has been very transparent in its actions, and has played a great communicator role among stakeholders. It has also advocated for accountability mechanisms such as: oversight by federal, state and local officials and citizens, including environmental and public health regulators and local community stakeholders.

In the end, the Legacy Program is able to bring together all parties because, in a way, they all benefit from its work. This Legacy Program model, which I call the “triangle of trust,” is a win-win situation for everybody.

Working with Stakeholders

Next, I will give you a quick overview of the players we work with in Washington, DC and of some of our regular activities and events. In the United States, we work closely with U.S. policymakers and their staff in the US Congress, with US government officials, with other countries’ embassy officials, with other non- governmental organizations (NGOs) including the local population at CWD sites, and with the media.

The Legacy Program is leading the Cooperative Threat Reduction (CTR) Working Group, an informal network of NGOs and think tanks, which meets to exchange views on threat reduction policy and to coordinate efforts to promote support for threat reduction, arms control, and nonproliferation initiatives in the Administration, on Capitol Hill, and within the Global Partnership. GG USA also works closely with 12 other NGOs in the Arms Control Advocacy Collaborative (also called AC2), to strengthen support for the Cooperative Threat Reduction (CTR) and related nonproliferation programs on Capitol Hill and in the Executive Branch. GG USA has drafted and signed many letters, met with Congressmen and their staff, and has helped with legislation for policy makers on threat reduction and U.S. chemical demilitarization efforts.

Furthermore, GG USA works closely with the local population at CWD sites. For example, we hosted a meeting earlier this year of the Chemical Weapons Working Group (CWWG) at our offices in Washington, DC. Craig Williams, CWWG Director, and many other citizens from the sites have spoken at our Forums and Dialogues in Moscow and Washington, DC.

The Legacy Program also works closely with the media by responding to inquiries and placing op-eds and articles in influential papers. Some recent examples are the article: “Kananaskis at Five: Assessing the Global Partnership” written by Dr. Walker and placed in the September issue of the prestigious *Arms Control Today* publication; GG USA was also featured in the article written by Lois Ember in *Chemical and Engineering News* called “Arms Control Disposal in Russia” published last week,

on October 22, 2007.

The Legacy Program is also working in other GP capitals. For example, in 2006 and 2007, in collaboration with Green Cross France and Green Cross Italy, we have organized a couple of workshops and a press conferences in Paris and Rome to educate these countries' Parliamentarians and the media on the latest status of these countries' contributions to Russia's weapons destruction programs through the Global Partnership. As you may know, Italy and France are by far the slowest in fulfilling their 2002 pledges of \$1.4 billion and \$1 billion, respectively, with spending to date estimated at only 3 percent (Italy) and 14 percent (France) of these amounts. These delays have been due to several issues, including tight domestic budgets and challenges in negotiating bilateral agreements with Russia.

The Legacy Program has also had a close working relationship with the OPCW. The Director General (DG), Ambassador Rogelio Pflinter, has spoken to many events organized by Green Cross/Global Green, most recently the Legacy Forum in Washington, DC on March 29, 2007 and the Roundtable organized in New York for UN staff and NGOs on September 27, 2007. On the same day, GGUSA participated at the High Level OPCW meeting at the United Nations in New York organized by Poland and the Netherlands.

The Legacy Program was also part of the organizing committee of the 2007 Academic Forum, which took place on September 17, 2007 in The Hague, The Netherlands, and Dr. Walker also spoke at that event. In addition, Green Cross/Global Green is the only NGO on the DG's Academic Advisory Council, and we have participated regularly in the Conference of the States Parties (CSP) at the OPCW. As a final point of collaboration with the OPCW, the Legacy Program has announced with the presence and support of the Director General on March 30, 2007 at a press conference at the National Press Club in Washington, DC, the launch of the Chemical Weapons Convention Universality Campaign, lead by Green Cross/Global Green USA. This is a "Track II" diplomatic approach which will complement the OPCW's own campaign to bring the remaining 13 countries outside the CWC within its mandate by 2012.

As a final activity in Washington, DC, I would like to mention the Legacy Forum that we organize every year, a very similar event as the one today, which brings together all stakeholders involved in CWD in the United States as well as delegates from Russia and other declared possessor countries.

Successes in 2007

The Cooperative Threat Reduction (CTR) Program and the Shchuch'ye project, which is the largest CTR program, continue to face many obstacles in the U.S. Administration, Congress, and in Russia. The full CTR funding request by the President for FY2008 – \$348 million – is 9.3% lower than the FY2007 request of \$372.1 million, which was in turn 10% lower than the FY2006 appropriation of \$415.5 million; it also zeroes out funding of the Shchuch'ye project, which the US Administration has now largely turned over to the Russians. The Legacy Program, however, has been successful in adding more money for CTR for FY2008, of which some money is committed to continuing the construction of the nerve agent destruction facility at Shchuch'ye in the Kurgan Oblast of Russia. We will continue to make sure additional funds are allocated

in future years, since we believe this project continues to be under-funded, and that the United States should continue to be involved at the facility through oversight and advice.

The Legacy Program has also been successful in helping to include language which eliminates all congressional conditions on CTR funds. As you know, the US Congress passed 12 conditions (6 on CTR overall and 6 on CWD), and the President of the United States is required by law thereby to certify that Russia is meeting these conditions before any US funds can be allocated. This has slowed down the construction process at Shchuch'ye and other sites and has generally made the multilateral demilitarization efforts much more difficult.

In addition, the United States is under legal obligation under the CWC to complete destruction of its 31,500 tons of declared chemical weapons at nine stockpile sites by April 29, 2012. Unfortunately, the Defense Department has refused to commit the resources to meet this important deadline and has stated, as I noted earlier, that it will now take until 2023 to finish CW destruction in the US. GGUSA is therefore working with Members of Congress to increase funding to accelerate construction at the last two sites – Pueblo, Colorado and Blue Grass, Kentucky – in order to eliminate these threats sooner, but no later than December 31, 2017 (as amended by Senators Mitch McConnell [R-KY], Ken Salazar [D-CO], and Wayne Allard [R-CO]) and come closer to meeting the CWC deadline. We are also supporting an additional \$62 million for Pueblo and Blue Grass, a total of about \$300 million per year total for the two sites.

Another success is that HR 1585, the FY08 Defense Authorization Act, also extends the existence of Citizens' Advisory Commissions (CACs) at the US chemical weapons stockpiles through closure of facilities rather than through only stockpile destruction. We have advocated that it is important to keep citizens involved to discuss issues such as facility clean-up and facility reuse for the benefit of the community.

Finally, we helped raise \$50 million for International Organization funding in the FY07 supplemental budget, including additional funds for the OPCW.

Lessons Learned

In conclusion, the main lessons learned are:

- Transparency, dialogue, accountability, and full stakeholder involvement are key for timely progress;
- Cooperation with all stakeholders is most productive, rather than using a confrontational style;
- Public health and environmental safety come first (as included in the language of the CWC); and,
- It is important to keep an eye on the prize: the complete, safe and total elimination of chemical weapons.

New Initiatives in 2008

Based on the same Legacy Model and principles, applied successfully for so many years in the field of chemical weapons destruction, the Legacy Program has identified

other areas of work that may benefit from its expertise.

In the area of biological weapons, we organized last year a roundtable discussion on the global biosecurity regime in Geneva, Switzerland two weeks before the BWC Review Conference. The chairman's summary from the meeting was introduced at the BWC Review Conference. Based on that experience, and the need for "Track II" diplomacy identified by experts in the field, the Legacy Program will organize starting in 2008 a roundtable in parallel with the annual BWC expert meetings in preparation for the next Five-Year Review Conference in 2011.

In the area of nuclear weapons and nuclear energy, we will organize a U.S. "Nuclear National Dialogue" series in Washington, D.C., based on the success of the Nuclear National Dialogue organized by Green Cross Russia in Moscow in July 2006 and April 2007. This Dialogue will bring together a unique discussion of U.S., Russian, and global nuclear weapons and energy policies, to include nuclear power and alternative energy futures, arms control and disarmament, nuclear non-proliferation, and global threat reduction. We believe that such a debate is much needed in the United States.

We are also looking at ways to facilitate the conflict surrounding the proposed construction of a gas pipeline through the Baltic Sea from Russia to Germany. As you may know, the project is encountering a lot of opposition from other countries in the region and civil society who believe that such a pipeline would create an environmental and economic catastrophe. Following the end of WWII, the Allies disposed of large quantities of German chemical weapons in the Baltic Sea, but nobody knows exactly where. Estimates are around several hundred thousand tons, with munitions numbering in the millions. Germany's chemical weapons arsenal contained mustard, lewisite, chlorine, phosgene and small amounts of the nerve agents tabun and sarin. All these types of weapons are believed to be present in the Baltic Sea.

The Legacy Program will try to help resolve this conflict by taking a neutral approach and by using its facilitation model. We will neither oppose nor support the construction of the pipeline as long the final decision will be safe to the environment and public health.

In the area of chemical weapons destruction, we are working on the CWC Universality Campaign, which I mentioned earlier.

Finally, I would like to show you a short, 1-minute, Public Service Announcement that the Legacy Program has produced to support the work of the OPCW and to celebrate the CWC 10th anniversary this year. We are in the process of placing it on CNN, CNN International, BBC, Al Jazeera, and other international TV outlets.

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

Incapacitating Chemical Agents and the Chemical Weapons Convention



Marie Chevrier
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The theoretical appeal of so-called non-lethal weapons is easy to understand. One can imagine many scenarios where a truly non-lethal weapon that would incapacitate completely, but whose effects would be non-permanent and quickly and fully reversible would be desirable. Unfortunately, no truly non-lethal incapacitating chemical has been identified nor is any such chemical likely to be identified.

The siege of the Dubrovka theatre in October 2002 demonstrates the dilemma of existing non-lethal weapons. In order to quickly incapacitate the hostage takers, a relatively high level of a chemical, believed to be a fentanyl derivative, was pumped into the theatre. There was no way of controlling the dose delivered to any individual, emergency medical response was inadequate and more than 120 hostages died.

An incapacitating chemical agent is not a scientific term or category; rather it is defined by the chemical's physiological action. Indeed, the meaning of the term 'incapacitation' is thus context dependent and can be somewhat elastic. Importantly, however, it must exclude death or permanent injury as an intended consequence.

In light of the Dubrovka theatre siege and the interest in 'non-lethal' weapons, a question arises in regard to the Chemical Weapons Convention (CWC). Namely, is the use of incapacitating chemical agents that are not in the category of riot control agents permitted for domestic law enforcement under the CWC?

Article II.9 (d) (Part 1) allows States Parties to use toxic chemicals for law enforcement, including domestic riot control, as a purpose not prohibited by the treaty. Article II.1 defines chemical weapons as follows "toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes..." And Article II.2 defines toxic chemical as "any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals." What, however, is the correct interpretation of these treaty clauses?

The Vienna Convention on the Law of Treaties establishes rules for interpreting treaties. The first rule is that treaty language be interpreted according to the common meaning of the terms in light of the treaty's object and purposes. If there is disagreement about the common meaning of terms one can look to the preparatory work of the treaty and the circumstances of its conclusion. Finally, one can examine state practice in the implementation of the treaty to further determine its interpretation.

Several interpretations of the law enforcement clause of the CWC have been

offered. One interpretation is that a toxic chemical used for law enforcement purposes must be consistent with the definition of a riot control agent (RCA). The only exception to the use of RCAs for law enforcement purposes is the use of a lethal chemical agent in capital punishment. A different interpretation is that a toxic chemical used for law enforcement may not be a Schedule 1 chemical but could possibly be a schedule 2 or schedule 3 toxic chemical.

Two questions now arise. First, is the ordinary meaning of the law enforcement clause clear? Second, is the ordinary meaning of the clause clear *in light of the treaty's object and purposes*? The preamble of the CWC in its entirety may be considered to embody the objects and purposes of the treaty and the following clause may be the most pertinent: "Determined for the sake of all mankind, to exclude completely the possibility of the use of chemical weapons." Given the different possible interpretations it does not appear that the ordinary meaning of the terms is clear. Further, it appears that second interpretation, that a schedule 2 or schedule 3 chemical could be used for law enforcement purposes is not consistent with the object and purposes of the treaty.

Moreover, the preparatory work and circumstances of the treaty's completion, reinforce the second interpretation of the law enforcement clause: that a toxic chemical used for law enforcement purposes must be consistent with an RCA, with the only exception being the use of a lethal agent for capital punishment.

Several additional considerations are pertinent in addressing whether the use of incapacitating chemical agents is permissible for law enforcement purposes. Aside from the CWC, international humanitarian law and international human rights law may also place restrictions on the use of incapacitating chemicals even on states which are not party to the CWC.

Openness and Transparency: The Keys to a Successful Public Outreach Campaign



Ivan Bulatny
*Director, Green Cross Bryansk Public Outreach and
Information Office, Bryansk Oblast*

Mr. Sergey Baranovsky and Forum participants,

Mankind entered this new century and millennium with a new understanding of the development of social interaction on this planet. Over the course of its development, the Earth's biosphere, a self-renewable component of Nature, saw little change for the entire millennia, until one of the species inhabiting the Earth, the *Homo sapiens*, reached a point in its development where it became capable of self-destruction.

Unfortunately, mankind made it a matter of priority to attain the absolute peak in this globally significant activity, to find ways to use all possible technological innovations and inventions in the art of war and perfect the technologies of human destruction. Chemical weapons (CW) emerged in ancient times and, after certain stages of development, have become one of the most fearsome weapons of mass destruction. Biological and nuclear weapons also exist today. In developing his teachings on the preservation of life on Earth, Academician Nikita Moiseyev made note of the fact that humans have broken their pact with Nature. For this, we now must overcome many obstacles and focus on nurturing our spirituality. By recognizing certain traits of our character, such as envy and greed, we must accept as fundamental precepts the truths taught by the Bible, Buddhism, and other religions, and forever forget the theory of the so-called "golden billion," the privileged of the Western world.

The complete destruction of chemical weapons is one example of this new mode of thinking. It is an exceptional idea for the development of all and the first step toward the preservation of humanity and life on planet Earth. The ratification of the international Chemical Weapons Convention (CWC), the tenth anniversary of which we celebrated in April 2007, inspires hope in the possibility of ensuring the well-being of people around the world and shows the possibility of preserving that which is most precious – human life. It is remarkable that the signatories of the Convention, despite their economic, social, and other differences, reached an understanding on a global level, and the CWD process proceeded at an accelerated pace, though obviously not without some difficulties.

Previously, the existence of chemical weapons was concealed from people in all countries. Suddenly, with the signing of the Convention, everything was on the table. At the same time, a multitude of opinions appeared, as well as concerns amid local populations, in particular among those living nearest to chemical weapon arsenals. A large-scale information campaign was needed to explain that the rapid destruction of this deadly threat was of vital importance. Given this situation, the best solution was to open independent Public Outreach and Information Offices (POIOs). This work is currently

being carried out by Green Cross Russia (GCR), headed by Sergey Baranovsky, a member of the Russian Academy of Natural Sciences. Out in the field, we can always feel the drive and exigency of GCR staff, who foster in us a sense of responsibility for events in the regions and encourage a rapprochement between representatives of the military and the population of the region.

The Bryansk Oblast is victim to two misfortunes: a high level of radioactive pollution following the accident at the Chernobyl Nuclear Power Plant (NPP), and the proximity of the Dolina CW arsenal in Pochep. Starting in 1986, the situation was such that in some cases Oblast residents could not decide on the best solution for themselves: should they leave the polluted territories or stay in areas where radiation levels were tolerable? How would the social issues concerning those who suffered from the accidents be addressed? The situation stabilized only many years later.

In this regard, the decision to destroy CW was clearly the right one. A massive 15-year-long effort by government agencies for CWD, now taken up by the federal directorate for the secure storage and destruction of CW, created the opportunity to reach our set goal by the CWC deadline.

As the link between the military, the general population, and as an independent NGO, our POIO continually provides answers to questions concerning the CWD situation and progress to the residents of the Bryansk Oblast. The Office performs a variety of tasks: it conducts meetings with residents in surrounding communities, offers lectures at institutions of higher education, schools, and Oblast and Rayon newspapers. The POIO will celebrate its fifth anniversary in November 2007. In the course of its existence, 2,880 people have come to us for information, and we have published approximately 60 stories in Rayon, Oblast and national newspapers (*Bryanskiy rabochiy, Argumenty i fakty – Bryansk, Komsomolskaya pravda – Bryansk, Bryanskaya uchitelskaya gazeta, and Nash gorod Bryansk, among others*). The newspapers had a total circulation of 265,000 copies. Our POIO participated in 556 events attended by a total of 17,200 participants. We conducted around 60 lectures on CWD issues in institutions of higher education. Our POIO took part in international and regional conferences. For example, the President of our POIO recently made a presentation at the Central Federal Okrug (TsFO) Conference on the Role of Public Organizations in Demographic and Social Problems in Bryansk on September 27–28, 2007.

Recently, our public outreach effort has become even more open, unlike in past years and offers access to information on CW storage and environmental monitoring. For example, in December 2003, our Office welcomed the Italian reporter Giorgio Fornoni from Milan Channel 3, accompanied by Mr. L. Fyodorov. He was on an assignment from the Italian government. His objective was to put together a good report and to convince the Italian population and their deputies in the Italian parliament that it was necessary to allocate resources for the construction of a CWD facility in Pochep and that openness and transparency were valued here in Russia. He also wanted to find out how the local population views the CWD process. We talked to people at the local market, visited some households in Pochep, and everything was going well. But when we drove up to Military Unit No. 21225, he was only allowed to look at the road leading to the facility and was not permitted to take a photograph of so much as the entry gates. The disappointed reporter went back to Italy. The report about this visit was still filed, according to Mr. L.

Fyodorov, but his report could not convince parliament deputies to allocate 360 million euros for the Pochep project, just as it was unable to demonstrate Russian transparency to the Italian population. Maybe this was also one of the reasons Italy did not appropriate funds for the construction of a CWD facility in Ramasukha. The situation is different today. When First Deputy Prime Minister Sergei Ivanov visited the Pochep stockpile in May 2007, representatives of the mass media were permitted to go on site with him.

We are very grateful to Mr. V. Tyutyunkov, the Head of the Pochep Rayon government, for his highly positive support for the development of physical education and local sports. A few achievements should be mentioned. The Rayon soccer team took first place in the Oblast among second division teams. In 2007, Mr. I. Novikov, the coach of the Judo School for Youth, obtained a Presidential grant of 100,000 rubles.

The construction of a health and fitness center in Pochep has been planned, although we feel that there have been some delays in this matter, in part due to tardy administrative decision-making by the city government, not the Rayon authorities.

A total of 150 hectares of the surrounding forest had to be cleared for the construction of the CWD facility. This is a significant loss for an area like the Pochep Rayon, which is sparsely wooded. For some reason, no one has raised the issue of replacing lost woodlands. The Russian Constitution states: “everyone shall have the right to a favorable environment.” The environment has been disrupted. We need to restore it for future generations. We have numerous plots of land in our area that have fallen into disuse. We should allocate funds to restore the woodlands, to be paid for through the CWD construction project, for the purpose of recovering a natural landform disturbed by human activity. The legal basis for this environmental action can be found in Art. 45, Par. 3 of the Russian Forest Code: “The forest is not just a forest, it is the future of our country” (Leonid Leonov, *The Russian Forest*).

In Pochep itself, near the construction site of the future health and fitness center, there is a wonderful green space we call *Verkhniy Sad*, or the Upper Garden, which was created in the 19th century by Count Kleinmichel. Sadly, this amazing, man-made bit of nature is run-down and needs to be restored to its full potential. This is just as important as all of the other aspects of the social infrastructure facilities being built.

Thank you.

The Tenth Anniversary of the Chemical Weapons Convention: Achievements, Challenges, and Future Developments for the Russian Chemical Weapons Destruction Program



Vadim Petrov
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Socio-Ecological Union of the Russian Federation*

This year marks the tenth anniversary of Russia's ratification of the Chemical Weapons Convention (CWC). On this important date, we must take stock of our achievements and analyze the challenges and outlook for future developments in chemical disarmament.

The past decade saw significant changes in both domestic and foreign political climates. The ratification of the Convention took place at a time of a severe economic, social, and political crisis in Russia, when issues concerning the destruction of chemical weapons (CW) could not be given the necessary attention and, for the most part, the destruction of chemical weapons itself could not be carried out without international assistance. Today, Russia is significantly stronger economically and the political environment is sufficiently stable. Russia now plans to provide the financing and manpower to complete the bulk of the chemical weapons destruction (CWD) program.

At this time, chemical weapons destruction facilities have been built in Gorny, where CWD operations have already been completed, and operations are scheduled to be completed in Kambarka in 2008. The first processing line of the facility in Maradykovsky has also been completed. CWD facilities are being created in other regions. In Shchuch'yey, the CWD complex could be completed as early as next year. At this time, approximately 30% of CW stockpiles in Russia have been destroyed. As required by law, approximately 10% of all financial resources spent on chemical weapons destruction are directed at building social infrastructure facilities at stockpile locations. We have gained professional experience in the CWD process. We have a mechanism for involving citizens in the decision-making process with regard to CWD issues in the form of the Citizens Advisory Commissions (CACs). All of this constitutes a positive development in terms of CWD since the ratification of the Convention.

However, the CW destruction process is facing several challenges:

1. At this time, CWD is being carried out or was carried out, at facilities with multi-ton CW storage tanks (Kambarka, Gorny) and containers (Gorny, Maradykovsky). Considering the reagent method used in Russia for the disposal of CW, the most challenging task is the destruction of artillery shells. The technology used to process this type of CW involves multiple stages, and several million munitions would need to be processed. This is why chemical weapons destruction plants for destroying artillery shells are more complex. It would also be necessary to change the method used to neutralize toxic agents, since munitions containing sarin also need to be destroyed. Large-scale

destruction processing of this agent has not yet started.

2. We have not yet solved the CW reaction mass (hydrolysate) neutralization problem. It appears that this would be resolved after the 2012 complete destruction deadline under the Convention.

3. More attention should be directed at involving the public in resolving CW destruction-related issues through the CACs. This has become particularly pertinent as Russian parliamentary and presidential elections draw near, so that the residents of communities at CW destruction sites do not become hostage to the political situation on the ground.

An analysis of these challenges shows that today the CW destruction process is entering its most complicated stage. In order to meet the deadline set by the Convention, CW destruction operations must be completed within a period of five years. Meanwhile, as was noted earlier, more complex CW destruction facilities would need to be built for the destruction of artillery munitions containing chemical agents.

At the same time, it is notable that the United States has allowed the possibility of completing the CW destruction process by 2017 or even by 2023. Accordingly, the 2012 deadline for the completion of CW destruction operations in the United States and Russia should be considered as reflecting the expectations of the international community within the OPCW. These expectations are in large part political and are not based on the technical capabilities and internal realities in countries with the largest CW stockpiles. In particular, from a technical standpoint, 2014–2015 would be a more acceptable deadline for the completion of CW destruction operations in Kizner. This is the case even considering that the issue of reaction mass (hydrolysate) neutralization would be addressed after the Convention 2012 complete CW destruction deadline.

It is also time to consider the options for the future conversion of CW destruction facilities after key operations are completed. Some of the equipment that was in direct contact with toxic agents would need to be neutralized, destroyed, or recycled. Nonetheless, these facilities have a technical support infrastructure, modern environmental control systems, and emissions and waste treatment systems. Clearly, all of this can and should be put to use. As an example of one such option, our institute has developed proposals for the conversion of the CWD facility at Kambarka, for example, into a facility for the neutralization of dangerous manufacturing waste from commercial plants in the Udmurt Republic and neighboring regions.

What Would a World Without the Cold War and Weapons of Mass Destruction Be Like?



Valentin Kvetkov
Chairman of the Citizens Advisory Commission
Green Cross Kurgan Public Outreach
and Information Office

Ladies and Gentlemen, and my respected colleague Mr. Sergei Baranovsky!

In the Russian language, the conjunctive mood is expressed with a combination of the past tense and the special conjunctive particle by [бы]. They say history has no conjunctive mood. Now, how is one to perceive Soviet historians who, for many decades, demonstrated a lack of professionalism with their biased views? Only an unbiased analysis of past omissions and errors — especially errors with disastrous consequences — can help us to make sound predictions about the future. What would have happened if the Russians and the Americans had not engaged in the Cold War, if they had not begun to stockpile weapons of mass destruction — if there were simply no weapons?

Why don't those guilty of conflicts between nations like the conjunctive mood? They don't care for it because it is the complete record of everything that they took from the people of their own country. This disregard for the conjunctive mood — for what could have been — and a weak analysis of yesterday's lost opportunities interferes with our ability to move forward today, and this applies much broader than the field of disarmament.

I often think about the money and intellectual effort Russia and America spent on weapons. It's something you can't calculate with basic math: there's no formula for mutual madness. But I can tell you it would have been much more than enough to develop solar energy, wind-generated energy, and water-generated energy. Instead, today we quarrel over oil, gas and coal. We preferred to spend all of our efforts on bombs. Are we not ashamed to look our children and grandchildren in the eyes? What irreparable losses did the world incur — especially the Soviet people — in defeating the plague of fascism? And then — it was out of the flames and into the fire; we fell into the fiery abyss of an icy war. Now what? We must climb out and patiently rebuild what we could have already had to prosper together. We can't begin to imagine what mankind could have achieved over the six decades of constructive efforts if it hadn't been for the arms race.

How much is enough! Nobel Prize laureate Konrad Lorenz could have concluded his book on the history of aggression this way. And I quote: "ever-recurrent phenomena of history do not have reasonable causes. Unreasoning and unreasonable human nature causes two nations to compete, though no economic necessity compels them to do so; it induces two political parties or religions with amazingly similar programs of salvation to fight each other bitterly and it impels an Alexander or a Napoleon to sacrifice millions of lives in his attempt to unite the world under his scepter."

And again: "One might think that each gift bestowed upon man from his

reasoning ought to be paid for by some kind of terrible misfortune that inevitably follows. Fortunately for us, that is not so; from abstract thinking grows that same reasoned human responsibility upon which the hope of dealing with increased perils is rooted.”

The BBC broadcasted a movie about how space was conquered. A wonderful time for mankind! However, it is a shame that it was “conquered.” As they did not compete, but rather collided into one another, these two great super-patriot planets — the Soviets and the Americans. Alas, it was not for the greater good or prosperity. Someone in a government position in one or the other country should have at least looked back and given a thought to the conjunctive mood and come to his senses before moving forward into the next impetuous race. But that is not what happened. A crime against humanity took place over the course of many years. And so the stockpiles grew.

Green Cross is all about the environment. It is very important that we do not forget our highest environmental debt. Will chemical disarmament become the beginning of the affirmation of a pacifist ideology in the world, the very same without which it would be impossible to save life on Earth? That depends on all of us. I believe that in relations with any country that seeks to trample peace, the peaceful community must stand firm. An international “Nuremburg” must pre-empt any further attempt of war, before it is too late; so that we do not have to ponder that conjunctive mood again in the future, a future that may not come to pass.

Aldo Leopold, a great environmentalist of our times as well as a scientist, poet and pacifist, described with chilling realism the landscape of the finale of our common environmental ignorance: “Some day, perhaps in the very process of our benefactions, perhaps in the fullness of geologic time, the last crane will trumpet his farewell and spiral skyward from the great marsh. High out of the clouds will fall the sound of hunting horns, the baying of the phantom pack, the tinkle of little bells, and then a silence never to be broken, unless per chance in some far pasture of the Milky Way.”

Let us take a step back from what is happening on the planet and look around ourselves, at least into the near-earth orbit. Do mountains of weapons on this tiny planet not look even more comical, do they not seem more infantile, like a children’s game? As Longfellow writes in *Hiawatha*:

*Gitche Manito, the mighty,
The creator of the nations,
Looked upon them with compassion,
With paternal love and pity;
Looked upon their wrath and wrangling
But as quarrels among children,
But as feuds and fights of children!*

The Native American god condescendingly laughs at our “war games,” as do the planet’s great pacifists Henry Longfellow and Ivan Bunin. But when will the world of modern, civilized peoples start to laugh at itself?

In October 2007, *Argumenti i Fakty* published an article by Vyacheslav Kostikov called “The Allure of Greatness” about the epidemic failure to contain the displays of grandeur in Russia ahead of the elections. Naturally, I immediately thought of my country’s efforts to counteract the end of the world as caused by man — all kinds of

weapons of mass destruction. I thought, well, we'll deal with the temptation of grandeur, multi-million dollar heists and we will solve the disarmament problem. As we say, everything will be all right.

I have a little book called *Invitation to Peace* with a very short epilogue that I think is very appropriate considering the central theme of my speech:

“When I decided to give my book a white cover, I unexpectedly remembered *White Flags* by Nodar Dumbadze, a wonderful person and Georgian writer. The final lines of the novel, with fantastic images one can almost reach out and touch, leave a lasting impression:

“And once again the Sun came to me at night. It encompassed me in its golden rays and reached out to me. The closer I was to the celestial body, the cooler it became. Having walked right up to it, I touched the Sun with my hand, and the Sun did not burn me. We clambered up the long, steep rise together — the Sun in front and I behind. We rose up very high, into the snowy peaks, into the kingdom of the eternal snows.”

“This is Mount Everest!” the Sun said and held a white flag out to me.

I unfurled the flag and held it high.

And a snow-white banner — the symbol of goodness, mercy and love, streamed over the world.

An enormous, white and unblemished flag flew over the world!”

So much light and hope emanate through those lines! Such metaphors! It was, after all, the Great Caucasus that inspired Dumbadze, in the same way it inspired Pushkin, Lermontov and Tolstoy not so long ago, pacifying despite the war.

The time has come. The world awaits the moment when Russia and America, with their arsenals of untold death, will come to their senses and immediately free themselves from their weapons in the name of continuing life on Earth, setting an example for the rest of the world in their genuine solidarity, friendship and love.

Russia's ratification of the Chemical Weapons Convention has bestowed upon my people ten years of worries, hopes and, most importantly, communication with likeminded people from countries around the world. I hope that all of those taking part in this anniversary Dialogue come to feel the same way.

Thank you.

Experience Gained by the Presidential Public Outreach Center During the Initial Stages of Chemical Disarmament in Russia (1992–1999)

Yuri Drozhzhin

***Former Head of the Presidential Public Outreach Center
(1995–1999)***

Over the course of the 15-year history of chemical weapons destruction (CWD) in Russia, we have seen three distinctive stages: the initial stage (1992–1999: with the Presidential Committee for Conventional Problems of Chemical and Biological Weapons and the Russian Defense Ministry as key participants), the intermediate stage (1999–2004: the Russian Munitions Agency and the Russian Defense Ministry) and the current stage (2004 to present: the Federal Agency on Industry). There are interesting aspects of each period, but of particular interest are the features and traits of the earliest public outreach work in this field. The Presidential Committee played a major role in organizing a specific field of information and in expanding work on CWD-related matters.

Since the early nineties, there were four main constituents involved in Russia's disarmament:

1. Federal authorities and departments, and affiliated organizations.
2. Regional authorities and departments and affiliated organizations.
3. Russian media and the public, as well as the residents of regions affected by CWD.
4. Foreign societies, including government, non-government and international institutions as well as media outlets involved in the CWD field. Building relations among these constituents, in light of new Russian realities, and little to no prior experience collaborating with one another, proved to be a challenge.

The official start of the initial CWD stage was in February 1992, with the creation of a new, presumably backbone body: the Presidential Committee for Conventional Problems of Chemical and Biological Weapons. This politically bold move was made one year before Russia signed the Chemical Weapons Convention (CWC) in Paris in January 1993. The committee's strategic goal was to tackle two types of weapons of mass destruction: chemical weapons (CW) and biological weapons.

Presidential Decree No. 160 (February 19, 1992) states that the Committee was formed "in order to resolve conventional problems of chemical and biological weapons, international collaboration and domestic control in preventing them from being developed, manufactured and stockpiled, as well as the disposal of CW stockpiles." A temporary set of committee regulations read: "In an effort to explain the government policy on chemical and biological weapons disarmament and the actions taken toward those goals, the Committee engages in regular collaboration with representatives of the community and the media." Practice has shown that sharing information between the Committee and federal and regional authorities and departments went without saying, while the focus needed to be on maintaining relations with the community and the media,

both in Russia and abroad.

The first incarnation of the Committee (Anatolii Kuntsevich et. al.) was really counting on the successful mobilization of the international community for nearly 100% of assistance for Russia's CWD. In 1993–1994, at the Committee's initiative, Moscow hosted two international conferences on CWD-related problems. At the first, which took place May 19–20, 1993, 250 people from 27 countries attended. The President sent a welcome message to the participants. One year later, in April 1994, a second conference was organized (sometimes referred to as a seminar) with the active participation of the Presidential Committee and the Russian Academy of Sciences. However, in April 1994, Mr. Kuntsevich left the Committee and his efforts to actively align the Committee with the community and foreign partners changed course, essentially adopting a fortress mentality with respect to the community and the media. Outreach efforts at this time were limited primarily at satisfying the Committee's own urgent need to support ties with federal and regional authorities.

A legal base for public outreach efforts was further developed in April 1996, when the first version of the Federal Target Program (FTP) for CWD in the Russian Federation was published, and quickly gained Presidential status. The following points were made in a special section of the FTP dedicated to public outreach:

1. Forming positive opinions among the population and community organizations about CWD;
2. Informing the public and communities about safety issues and environmental protection in the processes of storing and destroying CW;
3. Informing regional communities about the selection of CWD technologies, organizing the design and construction of CWD facilities and social infrastructure development;
4. Collaboration with media outlets in regions with CW storage and destruction facilities.

The Committee was instructed to make regular efforts toward achieving Point 1, while the Defense Ministry was instructed to take on Points 2 and 3, and all of the players in the FTP, including federal and regional authorities, were ordered to undertake efforts toward achieving Point 4. Public outreach efforts were declared “an integral part of the FTP.”

Public outreach and information work, as we know, involves the collection and analysis of information, the preparation of documents, and their distribution among all interested parties. However, within the Committee and at the stage of information dissemination — particularly for the media and the community — the process was disrupted. In early 1996, Green Cross Russia (GCR), which was still a young organization, proposed a collaborative agreement with the Committee. Prior to this, GCR, which held a balanced and realistic position on disarmament, had entered into a similar agreement with the Russian Nuclear Energy Ministry. This agreement presumed “the creation of an information base for a system of comprehensive and objective assessments of the environmental, socio-economic, health and sanitary conditions of the regions where CWD facilities, CW production facilities and other chemical facilities subject to national and international control are located.” The agreement also envisaged that the Committee and GCR would work together to form positive opinions among the public and public

organizations regarding CWD problems in Russia and pool their efforts in educating Russian and international communities, among other things.

The Committee considered five different versions of the agreement and still did not adopt it. It was a very slow process of breaking past the fortress mentality of the Committee. For the sake of fairness, it bears mentioning that problems with disseminating information during those years were experienced not only by the Committee — it had become somewhat of a national characteristic (“the communication crisis”) and created a slowdown in generating a common information base.

One reason that this situation arose could be partly due to staffing issues, i.e., the Committee members and organizational problems within the Committee. The Committee had over 60 members and boasted impressive scientific talent: five members with post-Ph.D.s degrees, two academicians, and 14 Ph.D.s. Many had military experience and experience working with government, industrial and scientific organizations, in addition to experience in the clean-up efforts after the Chernobyl accident. However, there was clearly a lack of communication specialists, international experts and educational organizers. At first, this imbalance was overlooked. Responsibilities for monitoring and preparing material on contacts with parties to the public outreach process were referred to the Committee’s subdivisions, and the planning and distribution of output information was taken on by the Committee’s management team (Mr. Syutkin and Mr. Ivanov).

Together with other ten to twelve federal bodies, the Committee developed projects for legislative and regulatory acts to ratify and implement the Convention. It also took part in international efforts with the Organization for the Prohibition of Chemical Weapons (OPCW) and in support of bilateral relations with foreign partners, in addition to developing ways to implement national and international control, and monitoring of Russian and international media outlets.

In 1992–1999, there were over 1,000 articles published in the Russian media about CWD, and roughly 500 in the international media. For the first time, the official translation of the Convention was released. The circle of authors writing on CWD problems in the Russian media reached over 100 people in 1996, and over 60 writers abroad. These writers aimed to work together with the Committee and offered their services (Boris Sopelnyak and others), but unfortunately nothing came of the attempts to form a team of interested writers.

The services of Scientific Research Institutions were also engaged to monitor the international media (MedStatistika, among other). The American firm SAIC and GosNIIOKhT worked together to produce the Russian-English Glossary of CWD terminology, which was also released in an electronic format.

By the mid-nineties, it became clear that it was inefficient to continue maintaining a handful of information resources scattered throughout the Committee. The decision was made to create an information service comprised of 3–5 people. The Center existed until the Committee was disbanded in 1999. Using only open-source information, the information service compiled reference and analytical resources on problems associated with chemical and biological weapons for the Committee and federal stakeholders. It also provided translation services for correspondence between the Committee and the OPCW, received foreign delegates in Moscow and monitored the media. As one result of monitoring Russian and international media in the Presidential Administration Library

funds, the information service released a Bibliographical Reference Collection (1 issue every six months). In 1996, Russia's Ministry of Foreign Affairs (MFA) requested all existing issues of the Collection from the Committee in preparation for an important meeting. Several similar requests were made from the Ministry of Defense, the Emergency Situations Ministry (MChS), the Ministry of the Economy, and others.

The information service produced over 500 documents (references, summaries, collections, translations, articles and press releases), distributed the Russian-language translation of the Convention throughout the regions, and arranged interviews with and speeches by Committee leaders in print media and on television. *A Guide to the CWC* was published in five parts (1999) and comprised a total of roughly 1,000 pages that shed light on the structure and functions of the OPCW, Russia's regulatory and legislative base for CWD, terms related to CWD, materials for conducting inspections, as well as reference information, a bibliography and translations of foreign publications in 1992–1999.

The Committee, however, did not have a happy ending. When the Committee was dissolved in 1999, one of the Committee staffers looked into the information service and proudly announced “I destroyed eight bags of your information today!” That, as it turns out, was the culmination of the Committee's self-destructive bent, a refusal to actively distribute information in the interests of the disarmament community.

I would like to give special mention of some of the information service staff members who worked so hard and conscientiously on public outreach: Ms. Suvorova, Mr. Sologub, Ms. Grigorieva, Mr. Vlasov, and Mr. Chetkin. They readily took on the challenges resulting from poor material and technological support and social disorder. The experience of the information service has shown that, if comparing two different approaches toward organizing public outreach efforts: a divided structure among the subdivisions of the Committee and a common, specialized body (the information service), the latter proved itself to be the most promising option.

In the second half of the nineties, someone came up with the idea to create a common information approach for CWD issues. It was proposed that all four components of the disarmament community be unified together with their complementary information resources and within a coordinated infrastructure. This idea never materialized. It was probably not the right time for such a serious project, considering the Committee's demise in early 1999.

Overall, we should recognize the Committee's constructive mark in the history of Russian disarmament. Thanks in large part to the Committee's organizational efforts, Russia ratified the Convention, became a member of the OPCW, created a specialized legal and regulatory base with over 200 acts pieces of legislation, and began to implement the Convention under a program and within the framework of international control. It also was able to build a foundation for a national body for the Convention and allowed the international community to maintain its stride and move forward toward accomplishing CWD goals. Even the very beginning of the information base for CWD, regardless of the difficulties faced in the Committee's initial stages, served as a valuable basis for forming and strengthening our modern administrative system, which is capable of handling all of the interaction among all of its components in the very unusual field of human activity that is chemical disarmament.

Closing Statement



Sergey Baranovsky
President, Green Cross Russia

The primary concept that was articulated immediately after the Chemical Weapons Convention (CWC) was ratified — that of a Dialogue — was absolutely one-of-a-kind. Nothing similar had ever been held before, nor is anything similar being held, and the nuclear field is the only field where anything similar is planned, again thanks to our initiative and many years of experience with the CWD Dialogue. It is a special thing that we are able to convene at least once a year.

But who are “we”? We are the representatives of four segments of the global community who meet here each year. This year, I will start backwards — not with the residents, not with those who are on the lowest rungs, but the people at the top — the international segment. The international segment is the first for us today, and we have already heard before — as we have heard today — that our international partners are contributing a great deal. They promised to help us, and they are helping. Another question, as Ms. Kalinina mentioned, is that this help is arriving in volumes much lower than those promised, and it is clear that not all efforts are being made to accomplish things the way we would like to. Perhaps it would have been better to spend more in Russia rather than in donor countries. We could continue to discuss this, but that doesn’t change the fact that the global community is still doing what it promised it would do before the decision was made to ratify the Convention. We were under considerable pressure from the international community to make that decision. Our country carried out and continues to carry out its obligations to the international community.

It is very important that civil society is also taking part in this process, in addition to national-level participants, i.e., the official Convention representatives. At all of our Dialogues, we hear the voice of government officials from CWC Member States: the United States, Switzerland and other countries. This is also very important. Today’s Dialogue welcomed representatives of the US, Switzerland, Germany, the Netherlands, United Kingdom, France and Finland. We welcomed new participants, and there is a positive trend, or a positive curve, if you will. Assessments were provided by the public, and by official representatives, both from our and foreign countries. The assessment was very objective. No one said that everything is progressing beautifully, and everyone honestly spoke about and acknowledged problems; the problems were identified, and a lot was said about dissatisfaction. That is why we convene with international and key sector representatives as well today. The participants spoke on behalf of the Russian Federation, on behalf of other countries, and on behalf of the public; they spoke the truth, which can be written down and that needs to be told to everyone involved.

My first conclusion about the international segment is that we are still far from having discussed everything. Even this segment is experiencing a great deal of problems,

although we are beginning to see the light at the end of the chemical disarmament tunnel. Nevertheless, there are still many unresolved problems that must be dealt with by our government and by our international sponsors.

Another sector is comprised of the federal bodies, the executive and legislative authorities and, naturally, the Russian national press. I must reiterate once again that the legislative authorities have demonstrated once again their outrageously indifferent stance on this problem. We have already discussed and come to terms with the fact that there are many problems that could have been resolved at a regional level, and they should be resolved by the people who were voted into office and who were voted to the Federative Council and our Duma, but they are avoiding these issues. They do not attend our Dialogues, they consider them uninteresting and irrelevant. That may be their right, but I cannot agree with them. They are not contributing anything to the duties that were bestowed on them by the people who elected them. There is an enormous hole here and it is with great dismay that I observe our legislators shirking their role in the decision making on a problem that is exceedingly important for Russia's society.

As far as the federal constituents of the executive power are concerned (i.e., federal agencies and our Federal Department), the bodies that are directly involved in the Federal Target Program (FTP) have taken a very proactive approach. But where are the other ministries? We always invite everyone. Through the Chemical Disarmament Commission, we know quite well how many ministries we have and which ones ought to be involved. In Russia, there are representatives for these ministries, for example, the Health Care Ministry; but there is no Environmental Ministry, something that Russia shares only with Honduras. Other normal countries have an Environmental Ministry and agencies of this sort should be the most active participants here. Representatives of their divisions are scattered throughout other agencies — we see them at the regional level, but not at the federal level. Even President Putin arranged to see us, and we invited practically all of the ministers. We understand that we might not succeed in gathering together all of the Ministers, but they also have Deputies — and lots of them: there are Department Heads, the Finance Ministry (we would like to hear that it is doing something to resolve this problem), and a pile of other Agencies, starting with the Emergency Situations Ministry (MChS). I am not going to list them all now, their representatives are not here and they do not want to speak with the people, with the civil society and say that they are doing something for the people and tackling this problem. That is why the problem still exists. We will have to bring them to the next Dialogue on leashes. We will ask the press to write about it, because no one is interested and no one is listening — it is like a voice crying out in the wilderness.

Next, there is the press. At the first Dialogues, no federal media outlets attended, while environmental newspapers did. Today, the situation is fortunately different, thanks in part to *Rossiiskaya Gazeta*. Our event was attended by ITAR-TASS and RIA-Novosti news agencies, *Noviye Izvestiye* and *Posev* and other national media; yesterday *Ekos* was here, etc. The press has started to devote a lot more attention to this very important problem and it is a very good thing that the media is represented at our Dialogue. That's all I'll say about the federal level, despite there being plenty more to say, there is much to discuss with the representatives of our federal power — both the legislative and executive branches. This is one more reason for the Dialogue's existence, because it is needed at that level too.

The regional level has always been well-represented, from the President of the Privolzhsk Federal District to the Deputies at regional legislative sessions. Regional legislative and executive authorities play an active role in this process and its representatives are always here, they are active and it is clear that they are making a contribution. It has become apparent, however, that in some of the constituents of the Federation, we see a different approach used by the regional authorities. Take for example, the Kirov and Kurgan Oblasts. That is a subject for future discussions. There is one point of view that says the regional authorities could be doing a lot more. But satisfaction has been voiced from our partners in Kirov, who say that their regional authorities do a great deal and that there is experience out there to be shared. This is wonderful. The legislative regional authorities, for example, Ms. Ludmila Akimovna, a Deputy of the regional Duma, also participates and speaks about what is being done in her region.

We are facing yet another problem, and we have only begun to discuss it and will continue talking about it for a long time: what needs to be done, when facilities will end the CWD process. This issue has, to some extent, been dealt with in Gorny, but not in the way we would have preferred. What will happen at the Maradykovsky facility? What will happen in Kambarka? There are tons of questions, and they need to be considered at each and every level; that is yet another enormous area in which to engage the press, the legislative and executive powers. So there are still many unresolved problems at the regional level, and discussions on these problems must be continued at our Dialogues.

Next is what I believe to be the most important segment. We'll call it the municipal level, representing the residents of villages and settlements that are located close to CW stockpiles and destruction facilities. Everything that is being done is being done for their sake. One way or another, they are key parties to the Convention. Here at the conference, the populations of the villages affected by CWD are very well represented by the heads of administrations, their deputies, Citizens Advisory Commissions and residents, not to mention local regional centers and Green Cross POIOs. They are all here. They all speak honestly about what is going on, and the representatives of other segments in society can at least learn exactly what is going on at CW storage and destruction facilities. Of course, it is clear how many problems remain, what these problems are, how other problems may arise, how they can be resolved and if they are being resolved. This level is extremely important and we need to maintain and support it, continue to raise these issues and inform the people who are capable of resolving them. That requires both discussion and coverage in the press.

Natalia Rylova from Kizner brought up one important problem at the press conference. Yes, the government is providing a lot of financial support for public outreach under the FTP, but no funds are received by the most important sources of information for the population: the local press. With all due respect for the efforts of the nationally distributed Rossiiskaya Gazeta, only two or three copies of this newspaper reach the residents of Kizner (I don't know if this is a fact, but it is the number I have heard people mention). On the other hand, thousands of copies of the local press reach up to 90% of the local residents, but these local outlets receive no federal money under the FTP. Local media outlets need the same kind of support that is currently being given to the federal and regional press. We will make this proposal on behalf of Green Cross and submit it to the federal level, because we need to ensure that the information that

we collect at this Dialogue and other forums gets to the people. We can only reach them once local media outlets are included.

One more important question: is the Dialogue needed? Many people, including our foreign colleagues, say that Russia is a rich country. We can resolve our problems on our own. The problems exist, however, in all four segments. They are far from being resolved. That is why none of the people who spoke today — not one in all forty of them — said that the Dialogue is unnecessary or a waste of time. Maybe it is not as effective as we would like it, but if it is not — please make suggestions for improvement! I tend to believe that there is still a need for the Dialogue and that there still will be for as long as it takes to destroy the very last milligram of CW. These intersectoral problems will continue to arise, and we can only resolve them by looking each other in the eye. No electronic internet or phone conferences are going to solve anything; although that is a good idea and should be developed in places where an internet connection is available.

Finally, I must assure you that we, as the organizers and initiators of this idea, believe that there is a need for this Dialogue and that Green Cross Russia and Green Cross International will do everything in our powers to ensure that a Dialogue is held next year. But we need support, primarily moral support, from our executive authorities. I believe that Mr. Kholstov will always take part and give an honest speech on what has been done and the plans for what should be done next. I think that proves that there is sense in holding the next, 10th Dialogue. Today is the 9th annual Dialogue, but it is still an anniversary event because it is the 10th anniversary of the ratification of the CWC. The next Dialogue will be the tenth, and will take place around November 5th, 2008. Thank you so very much to all of our sponsors, the governments of the countries that support us, first and foremost Switzerland, which has been a leader from the very start and the initiator of our first Dialogue conference. Our gratitude goes out also to the United States, the Netherlands, Finland, Great Britain, Canada, and the US Foundation Trust for Mutual Understanding for its support. Thank you to our federal agencies, especially the Federal Agency on Industry, thank you to the Federal Department for the Safe Storage and Destruction of Chemical Weapons, which is represented today by the largest number of participants, who are proactive people both here in Moscow and locally. And most importantly, I would like to thank all of the participants and guests here today who have contributed two days of their lives to discuss the critical issue of chemical disarmament and do their part to resolve the CWD problem at a global level.

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List of Abbreviations

ACWA	Assembled Chemical Weapons Alternatives
CA	Chemical Agent
CAC	Citizens Advisory Commissions
CMA	United States Army Chemical Materials Agency
CTR	Cooperative Threat Reduction Program
CW	Chemical Weapons
CWC	Chemical Weapons Convention
CWD	Chemical Weapons Destruction
DOD	United States Department of Defense
EPZ	Emergency Protection Zone
ES	Emergency Situation
FAI	Federal Agency on Industry
FL	Federal Law
FMBA	Federal Medical-Biological Agency
FTP	Federal Target Program
FUBKhUKhO	Federal Department for Safe Storage and Destruction of Chemical Weapons
FY	Fiscal Year
GCCH	Green Cross Switzerland
GCI	Green Cross International
GCR	Green Cross Russia
GGUSA	Global Green USA
GosNIIEP	State Scientific Research Institute for Environmental Industry
GosNIIOKhT	State Research Institute of Organic Chemistry and Technology
GP	Global Partnership
HPZ	Health Protection Zone
MAC	Maximum Allowable Concentration
MChS	Emergency Situations Ministry
MFA	Ministry of Foreign Affairs
NGO	Non-Governmental Organizations
OPCW	Organization for the Prohibition of Chemical Weapons
POIO	Public Outreach and Information Office
PPB	Parts Per Billion
PRG	Public Relations Group

Russian Chemical National Dialogue – 2007

QCA	Quantitative Chemical Analyses
RF	Russian Federation
RI	Research Institute
RIC	Regional Information Centers
SECMRC	State Environmental Control and Monitoring Regional Center
SME	Small and Middle-sized Enterprises
USA	United States of America
WMD	Weapons of Mass Destruction

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