

***SECURITY AND NONPROLIFERATION***

**ISSUE 5(17)2006**

**KYIV 2006**

**Dear Readers,**

The Editorial Team is pleased to announce that a member of *Security & Non-proliferation Journal's* Expert Advisory Board Sergiy Galaka successfully defended his doctor's thesis in Political Sciences on September 18, 2006. Our heartiest congratulations to the colleague on having completed a years-long process of his fundamental undertaking!

This event is unique for the fact that never before has a scientific endeavor of such dimensions appeared as far as systemic nuclear non-proliferation research and assessment of Ukraine's place in this regime is concerned.

The subject of his thesis "Nuclear Non-proliferation in International Policy" is of extreme relevance since nuclear non-proliferation tops the list of global challenges of today and the current status of this regime is a concern because of the crisis existing due, in part, to the application by nuclear-weapon-States of double standards to non-nuclear-weapon States' efforts to develop their own nuclear fuel cycles. The analysis of nuclear non-proliferation regime status and assessment of non-proliferation policy performance undertaken in S. Galaka's thesis are bound to be of extensive use for representatives of governmental authorities involved in identifying and implementing our foreign policy; scientists and experts studying modern trends and problems of countering nuclear proliferation and nuclear terrorism; and students of higher education establishments. The author highlights that "it is our national concern to pursue a non-proliferation policy that would take account of Ukrainian interests, that would require ....development of our own concept for such a policy."

Now that S. Galaka has been and continues incorporating his research findings into the curriculum of the Taras Shevchenko National University's Institute of Foreign Relations, we would like to thank him for the efforts he is contributing to the emergence of a circle of nuclear non-proliferation experts and wish him every success on this challenging path. We are hopeful that his students and post-graduates will be emulous of non-proliferation experts hailing from best international scientific centers.

Our most cordial wishes of health, harmony in his family life and inspiration in his undertakings to Sergiy!

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## 50th Annual Regular Session of the IAEA General Conference

The 50th Annual Regular Session of the IAEA General Conference was held in Vienna 18–22 September 2006. It was attended by delegations from 141 IAEA Member States (as of September 2006), as well as representatives of international organizations.

The subject items routine for each IAEA General Conference sessions included discussions of: the Annual Report for 2005, the Agency's Accounts for 2005 and approval of the Agency's Budget for 2007, review reports: “Measures to strengthen international cooperation in nuclear, radiation and transport safety and waste management”, “Strengthening of the Agency's technical cooperation activities”, “Strengthening the Agency’s activities related to nuclear science, technology and applications”, “Application of IAEA safeguards in the Middle East” (GC/50/12), “Israeli nuclear capabilities and threat” (GC/50/18 and GC/50/22), “Nuclear security – measures to protect against nuclear terrorism” (GC/50/13 Mod.1) and “Strengthening the effectiveness and improving the efficiency of the safeguards system and application of the Model Additional Protocol” (GC/50/2).

In view of our Journal’s programmatic pillars, we would mainly focus on nuclear non-proliferation documents.

The Report by IAEA Director-General *Nuclear Security - Measures to Protect Against Nuclear Terrorism* indicates that international legal instruments provide a strategic framework and a common platform for States to work together to enhance their collective nuclear security, provided the responsibility for nuclear security rests entirely with each individual State.

A new international nuclear security framework is emerging based on obligations assumed in the Convention on the Physical Protection of Nuclear Material (CPPNM) and its Amendments, the International Convention for the Suppression of Acts of Nuclear Terrorism, the relevant Security Council resolutions and the non-binding Code of Conduct for the Safety and Security of Sources and its Supplementary Guidance. The obligations assumed under safeguards agreements are part of this framework. IAEA assists national efforts to enhance nuclear security, particularly by helping identify needs through evaluation missions which are based upon the relevant international legal instruments and Agency guidelines and recommendations. In 2005 IAEA carried out, at the request of the Member States involved, 31 International Nuclear Security Service (INNServ), International Physical Protection Advisory Service (IPPAS), Radiation Safety and Security of Radioactive Sources Appraisal (RaSSIA) and State System of Accountancy and Control Advisory Service (ISSAS) missions.

During 2005, the Agency’s capacity-building activities during the year included fifty international, regional and national security training courses with participants from 88 Member and Non-Member States. 760 pieces of detection and monitoring equipment were procured for 19 States in Africa, Asia, Europe and Latin America along with the procurement of physical protection equipment to help five States improve the physical protection of locations containing high-activity radioactive sources. The Agency concluded a Cooperation Agreement with Interpol, which will, inter alia, facilitate a cooperative project involving illicit trafficking data and its analysis. A second and third Joint Action was concluded with the European Union designed to secure nuclear and other radioactive material, and to enhance detection and response capabilities, in States in South Eastern Europe, Central Asia, Caucasus, North Africa, the Middle East and Africa. The IAEA Illicit Trafficking Data Base is now contributed to by 91 States. Analysis of its data is providing valuable insights into patterns and trends in illicit

trafficking, into threats and risks and into trafficking methods and routes, point to vulnerabilities in control and protection systems. It is an important contribution to prioritization of activities.

In addressing nuclear security, IAEA has identified a list of potential malicious acts: a stolen weapon; an improvised nuclear explosive device made from stolen nuclear material; a radiological dispersal device (RDD); and sabotage of, or attacks or threats of attacks on, facilities, locations or transports containing nuclear or other radioactive material, which could result in its dispersal. These are independent of any assessment of terrorist intentions or capabilities.

The numbers of nuclear facilities and the quantities of nuclear material worldwide are a key component in assessing the global risk. With regard to nuclear material, there are 442 operating power reactors worldwide and 248 research reactors in operation. In addition, there are 18 conversion plants, 40 fuel fabrication plants, 7 re-processing plants, 13 enrichment plants, 89 separate storage facilities and 74 other facilities under IAEA safeguards. Safeguarded facilities contain 641 Significant Quantities (SQs) of high enriched uranium (HEU) and 11, 233 SQs of separated plutonium (Pu) outside of reactor cores or in spent fuel. There are additional nuclear fuel cycle facilities and materials in nuclear weapon States and non-NPT States. The total amount of spent fuel is estimated to 190,000 tons of heavy metal, therefore protecting these facilities and this material from theft or sabotage presents a formidable security challenge. In 2005 IAEA recorded two incidents of illicit trafficking in high enriched uranium: in the U.S. (New Jersey) and Japan (Fukui). An assembly containing 3.3 g HEU was lost in New Jersey somewhere between March and April 2005. On 24 June 2005, a neutron flow detector containing 0.017 g HEU was found missing in Japan. The destiny of the HEU missing in the U.S and Japan is unknown.

Another threat is a large number of existing radioactive sources. The precise number is not known, but may well be in excess of 3,000,000 sources of various activity worldwide. Many are not suitable for use in a simple RDD but estimates of how many might be used for malicious purposes are complicated by consideration of the disruptive and psychological effects of an RDD with immediate casualties and destruction being not the only considerations. ITDB has information on 535 confirmed incidents involving radioactive sources since 1993. It indicates that measures to control sources are not adequate and that security needs improvement for sources suitable for RDDs.

IAEA establishes that nuclear security is relevant for many areas. Cooperation and coordination of security and safeguarding efforts facilitate synergies: joint missions are convened to evaluate and assess the effectiveness of national laws and regulations for control of radioactive sources; engineering safety design measures helps reduce the vulnerability of vital areas in nuclear facilities to sabotage; control of and accounting for nuclear material contributes to deterrence and/or early detection of theft; nuclear forensics and physical protection of nuclear material make a substantial contribution to non-proliferation objectives. For its legislative assistance program, the Agency has pursued a comprehensive approach referred to as the "3S" concept, which recognizes the interface between nuclear security, nuclear safety and safeguards as well as nuclear liability.

Pursuant to the objectives of the Nuclear Security Plan, the Agency facilitates the development of guidance and recommendations in this area. The process of drafting and reviewing publications in the Nuclear Security Series takes account of

confidentiality considerations and recognizes that nuclear security is inseparably linked with general and specific national security concerns. 14 Series documents are in various stages of development.

Pursuant to General Conference Resolution GC(49)/RES/15 (2005), IAEA Director General M. ElBaradei presented a report *Application of IAEA Safeguards in the Middle East*. It indicates that all States of the Middle East region except for Israel are parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and have undertaken to accept Agency safeguards to provide the assurance that all of their nuclear activities are for peaceful purposes. Over the past year, two States (Comoros and Saudi Arabia) have signed comprehensive safeguards agreements, one State (Comoros) has signed an Additional Protocol, and an Additional Protocol has entered into force for one State (Libya) in the region. As of 14 August 2006, 8 States of the Middle East region that are party to the NPT have yet to bring into force their comprehensive safeguards agreements with the Agency pursuant to that Treaty; 4 of those States have signed but have not yet brought into force their NPT comprehensive safeguards agreements, while the remaining 4 States have yet to take any action in this regard. Additional Protocols are in force in three States (Jordan, Kuwait and Libya) of the region, while five States (Comoros, the Islamic Republic of Iran, Mauritania, Morocco and Tunisia) have signed but not yet brought into force an Additional Protocol.

The Director General has allegedly not been able to make progress in fulfilling his mandate pursuant to resolution GC(49)/RES/15 regarding the application of full-scope Agency safeguards in the Middle East region. The Director General's discussions with representatives of the States of the Middle East region have shown once again that there still continues to be a long-standing and fundamental difference of views between Israel, on the one hand, and other States of the Middle East region on the other hand. Israel takes the view that safeguards, as well as all other regional security issues, cannot be addressed in isolation from the regional peace process and that these issues should be addressed in the framework of a regional security and arms control dialogue that could be resumed in the context of a multilateral peace process, and when phase II of the road map is reached. The other States of the region maintain that there is no automatic sequence which links the application of comprehensive safeguards to all nuclear activities in the Middle East, or the establishment of a nuclear-weapon-free zone (NWFZ), to the prior conclusion of a peace settlement, and that the former would contribute to the latter.

The evolutionary process which has resulted in broad adherence to the NPT and consequently to INFCIRC/153-type comprehensive safeguards agreements in the Middle East is an important step in creating confidence regarding nuclear non-proliferation and regional security. The United Nations General Assembly has adopted successive resolutions supporting the establishment of an NWFZ in the Middle East. Additionally, at 1995 and 2000 NPT Review Conferences, the parties to the NPT reaffirmed their conviction that the development of NWFZs, especially in regions of tension such as the Middle East, should be encouraged as a matter of priority. There is, then, a consensus that the global nuclear non-proliferation regime would be further strengthened through the establishment of an NWFZ in the Middle East. The General Conference requests for model safeguards agreements require, however, agreement among the States in the region on the material obligations that those States are prepared to assume as part of an NWFZ agreement in the Middle East region. Already described in the previous reports of the Director General, most recently in GC(49)/18, were the material obligations which could form part of an eventual Middle East NWFZ agreement. They might fall into several general categories, inter alia, those that: 1) preclude research and development on and the possession, acquisition, manufacture or stationing of nuclear weapons or nuclear explosive devices; 2) require the disclosure of all nuclear activities, including research and development, imports, exports and production; 3) require the application of the Agency's strengthened safeguards system, with possible additional features relevant to the region, to all nuclear material, installations and relevant equipment and

material; and 4) preclude research and development on and the production, importing or stockpiling of weapon-usable fissile material, as well as possible other prohibitions or restrictions on some specific sensitive nuclear activities.

Overall, there still continues to be general lack of clarity on the substance and modalities of an agreement to establish a Middle East NWFZ and the Secretariat may therefore not be in a position at this stage to embark on the preparations of the model agreements foreseen in the resolution. However, the IAEA Director General and the Secretariat will continue to consult and work with States of the Middle East region to find the common ground.

NWFZs have already been established in Latin America, the South Pacific, Southeast Asia, and Africa, through associated treaties. All these NWFZs are of particular relevance to the examination of a verification regime for a future Middle East NWFZ: all four treaties cover large inhabited areas and all are designed to ensure the total absence of nuclear weapons from the territories of the States party to them; all four treaties provide for Agency verification of the non-diversion of nuclear material and for the establishment of regional mechanisms to deal with compliance problems; and all four treaties contain a protocol providing for the nuclear-weapon States to commit themselves not to use or threaten to use nuclear weapons against any non-nuclear-weapon State party to the NWFZ treaty in question.

Despite the Director General's efforts to hold a forum that would review existing NWFZs' relevance for the establishment of a NWFZ in the Middle East, the concerned States have not reached final agreement on the agenda for such a forum. The Director General has continued to call for an expanded regional dialogue on issues of security to facilitate the establishment of an NWFZ in the region of the Middle East. The General Conference was almost unanimous (by 89 votes pro, 2 contra, 3 undecided) to pass a resolution that calls upon all States to apply the IAEA comprehensive safeguards to all their nuclear activities. This resolution was opposed to by the U.S. and Israel only. Israeli representatives speaking at the General Conference session called the world community's requirement to establish a NWFZ in the Middle East "unserious and unsafe".

When reviewing Israel's nuclear potential and nuclear threat, the Western countries blocked the attempt by developing countries to officially recognize Israel's nuclear arsenal as a threat to peace. But the absolute majority of the General Conference participants spoke in favor of placing all nuclear facilities in the Near East under IAEA safeguards. The voting on Canada's proposal to abstain from discussing the Israeli nuclear file resulted in 45 ballots for, 29 against, and 19 undecided, including RF and India. Therefore, the idea that it makes not sense to consider Israeli nuclear potential came out victorious. Experts note that the draft resolution has become the toughest document to be considered by IAEA over the recent years. The Israeli delegation took no part in session activities devoted to this agenda item.

A working meeting on nuclear fuel supply assurances and nuclear non-proliferation was held 19 through 21 September as part of the 50th Annual Regular Session of the IAEA General Conference. The attendees discussed methods to strengthen controls over sensitive technologies of nuclear fuel cycle, specifically of uranium enrichment and plutonium production. Nuclear engineering progress has brought about a hazardous situation when 35 to 50 States are currently capable of carrying out these activities on their own. The IAEA Director General M. ElBaradei believes it is high time to limit the production of weapon-making material such as plutonium and uranium for civil nuclear programs, concentrating these operations at facilities placed under multinational control.

The meeting was concluded with a speech delivered by the Working Meeting Chairman Charles Curtis. He noted that establishing a fully-developed, multilateral framework that is equitable and accessible to all users of nuclear energy would be a complex endeavour.

It can be addressed in a few phases. A first – near term – phase would focus on establishing mechanisms for assurances of supply of nuclear fuel for nuclear power plants. The Meeting Chairman included the following proposals as possible options: an IAEA-owned low enriched uranium fuel bank; the proposal of the six major nuclear fuel supplier States (France, Germany, the Netherlands, the Russian Federation, the United Kingdom and the United States of America) whereby these States assure supplies of their products in response to all other States' commitment to forego uranium enrichment; the proposal of the Russian Federation for international nuclear fuel cycle centres; the proposals of Japan and the United Kingdom, described as “complementary” to the six major fuel-supplier State initiative. The latter proposal represented a counter-proposal to the idea of the six exporter States and consists in establishing a registration system to include States capable of producing nuclear fuel. All countries involved in the system would have to register all nuclear technologies that they could supply, namely: fabrication of raw materials, uranium conversion, uranium enrichment and fuel fabrication. The Register must be kept by IAEA. States that have renounced from developing their own nuclear fuel cycle technologies that have dual-use potential (uranium enrichment or plutonium production), would obtain nuclear fuel from other parties to the system with IAEA as a mediator. A second – mid and long term – phase, focusing on the possibilities of evolving a truly comprehensive multilateral system, integrated with commercial market mechanisms and designed to assure supply adequacy and responsible management and disposition of waste. Included for examination in the mid and longer term phase would be proposals for assured access to power reactor components and technologies and the possibilities for developing future enrichment and reprocessing operations on a multilateral basis. The ultimate goal for this phase would be to convert existing enrichment and reprocessing facilities from exclusively national to multinational operations.

A supply assurance mechanism is key to preventing instances of supply interruption to one country or another for political reasons as well as offsetting the vulnerabilities of creating national NFCs. Charles Curtis emphasized that States voluntarily choosing to rely on international fuel supply, rather than building their own indigenous fuel cycle capabilities, would not be required to forfeit their rights under Article IV of the NPT.

The working meeting discussions featured some differing views on the subject of safeguards. Some believe that assurances must exist of uninterrupted natural and low enriched uranium supplies. A different view is that nuclear fuel supply assurances should be extended via cross-agreements between major suppliers. The meeting attendees agreed that it would be inefficient to create a bank of fuel cassettes and heat-generating elements because of far-reaching differences in design. In this respect the idea of creating a “virtual reserve” of natural and low enriched uranium based on legally binding contracts without setting up specific physical storages that was also under discussion, was elaborated on in terms of probable occurrence of legally binding obligations to fabricate fuel elements.

The role of IAEA in the functioning of an assured fuel supply mechanism will depend on the specific type of mechanism to be implemented. This role may vary in a broad range– from controlling or owning uranium banks through to managing virtual reserves and fabrication services commitments. From the legal perspective, agreement packages among IAEA, suppliers and consumers need to be developed and the question of fissile material transit and temporary storage addressed. Finally, Charles Curtis expressed hope that the IAEA Secretariat together with IAEA Member States, nuclear industry representatives and independent experts would continue the endeavor to establish a system of assured fuel supply throughout 2007.

*Summarized by O. Kosharna based on documents available at:*  
[http://www.iaea.org/About/Policy/GC/GC50/index\\_day5.html](http://www.iaea.org/About/Policy/GC/GC50/index_day5.html)



**The language of diplomacy is too complex.**

**The Democratic People's Republic of Korea is learning a language of threats and intimidations.**

***Daria Friedman***

International information and analytical agency Washington ProFile has recently identified a top ten of countries with the largest military budgets. The U.S. took the leading position by the amount of its military spending in 2005. According to the data made public by the CIA, last year the United States spent USD 573 billion on military programs while USD 329 billion was spent to meet the same needs in 2001. Other representatives of the top-ten are China (USD 81.47 billion), Japan (USD 44.31 billion), South Korea (USD 21.05 billion) and Russia (USD 21 billion) –countries trying together with the U.S. to reach a peaceful (!) resolution of the North Korean nuclear problem under six-party talks on the Korean Peninsula crisis settlement.

Such a background completed by the U.S., DPRK's most ardent opponents, constant bragging of their increasing military presence on the Korean Peninsula and of the fantastic military progress, as well as boosting economic development of the South East Asia after the crisis the late 90-s, which caused a new large-scale arms race in the region, are reasons why North Korea's growing overbearing and aggressive behavior appears justified to a degree.

Indeed, how many chances would North Korea, a country with more than 20 mln population suffering from malnutrition and surviving only through foreign assistance (for instance the South Korea annually provides the DPRK with about 500 thousand tons of grain, the same amount of rice and over 400 thousand tons of fertilizers while China delivers grain, coal and oil), have had to be heard, say, without a 1,100 thousand-strong army; without developed missile technologies and without its own nuclear program? That is why, according to many researchers of this issue, DPRK deems its necessary to periodically demonstrate its military power, as if protecting in this manner its right for independence and sovereignty and forcing international community to make certain concessions.

We may be reminded that during the second stage of the six-party talks round 4 (September 13–19, 2005) the parties (China, Russia, U.S., South Korea, Japan and North Korea) reached important results for the first time – the Joint Statement of the Fourth Round of the Six-Party Talks was adopted. The U.S. agreed to provide the DPRK with energy resources and to revisit at an early date the issue of resuming the North Korean nuclear power plant construction in exchange for dismantling its nuclear military program. Moreover, Washington declared that it was not going to attack North Korea. In its turn, Pyongyang promised to return under the Nuclear Non-Proliferation Treaty, to grant IAEA inspectors access to its nuclear sites and to take measures for the improvement of its bilateral relations with Japan and the U.S. But the fifth round of the talks launched in Beijing in November 2005 is yet to be concluded. It was possible to hold its first stage only, the second one has not been held until now.

For some period the attention from that deadlock situation around North Korea's nuclear program was diverted by Iran with its extremely emotional and aggressive rhetoric addressed to major international powers and with its intransigent unwillingness to respond to the international community demands to stop the implementation of its national nuclear program. Fond of strong language, Mahmud Ahmadinejad, a proud beard-bearer who traditionally wears a shirt with the collar unbuttoned, who bravely challenges “occupants and aggressors supporting the Zionist regime”, was quick to make the public forget about that tight-lipped, button-down and always clean-shaved Kim Jong-Il in his austere trench coat. But already this June North Korea was back on the front pages of international media.

U.S. intelligence released data that a 35 meter-long intercontinental ballistic missile *Taepodong-2* had been readied for a launch at North Korea's missile base on the Cape of Musudan.

There is little known about this missile. It is believed to have been created based on technologies received from the Soviet Union and later from the Russian Federation. “According to North Korean and Chinese media, Taepodong-2 may be a three-stage missile. The first two stages are known to be filled with liquid fuel, while the warhead is equipped with a solid fuel engine. The missile’s payload data vary as well though the missile is reported to be able to carry a charge of 1 to 1.5 tons. North Koreans are working to modify the warhead into a dividable one, composed of three parts each with individual targeting”<sup>1</sup>. Its range is preliminarily estimated at 6 thousand miles. In other words, the North Korean missile can, in theory, reach Los-Angeles.

Once that information leaked into the public domain, courtesy of mass media, a chain reaction followed. The South Korean and American troops on the Korean Peninsula were communicated a battle alert. The U.S. Administration informed the Japanese government on its intention to deploy elaborated Patriot missiles on Okinawa Island. Besides, the Pentagon placed on full battle alert its new missile defense system, which includes two land bases: that in Alaska and that in California.

The Japanese National Defense Department, in turn, directed to send their destroyer *Tekai* carrying a U.S anti-missile system Aegis onboard into the Sea of Japan water zone.

China being on the best terms with the DPRK “took the information into consideration” and “called upon the international community to keep composure.”

The most peculiar behavior was demonstrated by official Pyongyang. For starters, North Korea insisted that information on the missile’s launch had been fabricated by the U.S. Soon after that North Koreans claimed that their country had not adopted a moratorium on ballistic missile tests. Therefore, the charges that DPRK was in violation of its commitments were groundless. (In 1999 Japan and North Korea reached an agreement for Pyongyang to pass a moratorium on missile launches. It followed the 1998 launch by DPRK of a multi-stage missile, a part of which hit ground in the vicinity of Japan). After that DPRK demanded one-on-one talks with the U.S. and declared its readiness to postpone testing once the negotiation process is started. “North Korea is a sovereign country. It has the right to devise, improve, test, and export missiles. But the U.S. response does upset us and we think that negotiations are the only way to avoid misunderstanding”. Such a statement was made in Washington by Deputy Head of the North Korean Mission Han Song Ren.

The U.S. responded that it was ready for the dialogue only within the framework of the six-party talks and that no measures, including those involving the use of force, could make it accept DPRK’s conditions. North Korea wasted no time. On the night between July 4 and 5, as the U.S. was preparing for the Independence Day celebration, Koreans conducted a missile test. There is no unanimous idea as to the quantity of missiles launched. According to afore-mentioned Japanese Defense Department there were at least six missiles: five of them short- and middle-range missiles and one – a notorious Taepodong-2. Russian experts later informed that there had been in fact eleven missiles. Some of them flew for a few minutes, the others for a few seconds, falling afterwards into the Sea of Japan.

Japanese experts drew a map indicating landing coordinates for six North Korean missiles. All of them drowned in the North West part of the Sea of Japan, in Russia’s 200-mile exclusive zone. One of the short-range missiles fell just a few dozens of kilometers away from Nakhodka and the Taepodong-2 about 150 kilometers from Vladivostok. However, according to Russian data, the missiles hit neutral waters and posed no threat to Russia. Americans too calculated later that, assuming the Taepodong-2’s flight trajectory, this missile had been intended to hit Hawaii, a U.S. island state hosting American military bases and Command Headquarters.

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<sup>1</sup>*Sahaydachny I. DPRK’s Missile Bluff // Weekly Mirror. – 2006. - № 27 (606).*

Washington's response was tip-and-run: "DPRK has chosen self-isolation again!" But, notably, this time it was not followed by G. Bush, Jr.'s routine intimidations by threats of sanctions and military attacks. The Japanese wasted no time either. Almost immediately after the tests they imposed limited sanctions, including barring Korean civil vessels from Japanese ports and a moratorium on charter flights from Pyongyang.

North Korea upset not Washington and Tokyo only; it also appalled its Southern brother in Seoul, who promised to discontinue supplying rice and fertilizers.

Moscow sent an official protest to DPRK, blaming it for failure to warn on the date of testing and for the fact of launching two missiles in Russia's direction. It stressed that such actions "contravene the expectations of the international community interested in strengthening regional peace and stability".

Like before, Beijing encouraged keeping composure, despite the fact that the missile test challenged China's authority as president of the six-party talks on DPRK's nuclear program as well as its capability to influence Pyongyang. Well, just a week prior to the subject events the Chinese Premier Wen Jiabao had called upon North Korea to abstain from missile testing.

It took the UN Security Council members almost two weeks to adopt a resolution that could be a dignified response to DPRK's ruffian-like escapades. Finally, on 16 July, the UN Security Council Resolution followed, condemning North Korea's missile test and challenging the latter to make new commitments to stop such tests. This Document also calls for an early resumption of the six-party negotiation process; for strict adherence to the September 2006 Joint Statement by all parties; for peaceful and verifiable denuclearization of the Korean Peninsula, and for maintaining peace and stability on the Korean Peninsula and in North-East Asia.

The discussion of the North Korean issue was also included in the agenda of the G-8 summit held this year in Saint-Petersburg (July 15-17).

G8 had aroused big expectations. The leaders of 8 major world powers were expected, resulting from discussions of the most pressing problems of late and from collective pursuit of solutions to them, to propose specific steps towards elimination of the North Korean threat. The participants of the Summit instead did nothing more than to pass a Joint Statement on non-proliferation, a large part of which though being devoted to DPRK. The G8 leaders "unanimously welcomed the UN Security Council resolution"; underlined that the missile test "deepen the G8 leaders' concerns about DPRK's nuclear programs"; and called upon DPRK "to renounce all nuclear weapons and all nuclear programs and immediately resume the six-party talks"<sup>2</sup>.

And in the meantime... According to some Asian mass media, unusual activities have been noticed again on the North Korean launch sites. According to the experts, this can be indicative of preparing new tests and missile launches.

As we see, DPRK can be helped by neither threats nor persuasion. Moreover, the situation is getting worse. Mass media have recently reported Pyongyang's preparations for underground nuclear tests. ABC informed that American intelligence satellites had spotted "suspicious movements of vehicles, discharging a large amount of cable coils and research equipment" in the vicinity of a mining complex near North Korean underground service range P'unggye-yok. In addition, North Koreans informed on their intention to extract the fuel rods from their only reactor at the Yŏngbyŏn Research Centre in order to produce weapon-grade plutonium before the end of this year.

Thus some skeptical allegations that the missile tests were nothing other than a one-time PR trick planned by DPRK's leadership to demonstrate the might of the "heir to the old Korean States" have been defeated.

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<sup>2</sup> *Sergiy Kondratov, Olga Kosharna. Outcomes of the G8 Summit in Saint Petersburg // Security and Proliferation. – 2006. – №4 (16).*

At the same time Pyongyang does not conceal that its only purpose in using these measures is to influence the U.S. and maneuver it to bilateral negotiations. The U.S., in turn, for the umpteenth time confirms its willingness to resume the dialogue, but in the six-party format only, adding that Washington will immediately demand that new sanctions be imposed to fully isolate DPRK from the outer world once Pyongyang makes its intentions a reality. A naval blockade is not excluded as well.

But will an isolation of the Kim Jong-II's regime become a way out, from the perspective of international diplomacy? What can guarantee that next time DPRK will not decide to remind the world of itself in a manner yet more "peculiar" than missile testing?

As of today, the most desirable option of making progress in the North Korean crisis is DPRK returning to the table of six-party talks. Thus the diplomats face a difficult task – to incline in any possible way the inflexible North Koreans to renew the negotiation process without any concessions hindering North Korea's denuclearization and making one believe that this minor Asian country manages to manipulate the most powerful states of the world.

## **EDITORIAL**

On 9 October 2006, global information agencies informed about DPRK's first nuclear weapon test. South Korean government confirmed that a quake in the North East of DPRK of magnitude 3.5 on the Richter scale had been recorded. A Japanese seismic agency reports a quake of magnitude 4.9 on the Richter's scale. ITAR-TASS quotes Russian Army General Vladimir Verkhovtsev, Head of the 12<sup>th</sup> Senior Department of the Russian Federation Ministry of Defense responsible for nuclear security, as saying that at 05:35 Russian "monitoring equipment spotted a nuclear weapon test in DPRK. It was a 100% underground nuclear explosion".

The Russian Federation Ministry of Foreign Affairs has condemned the tests undertaken by Pyongyang as "defying the unanimous will of the international community interested in the nuclear-free status of the Korean Peninsula". "We urge the DPRK to take immediate steps to re-accede to the Nuclear Non-Proliferation Treaty and to resume the six-party talks. From this perspective we will speak to the UN Security Council as well," says an official representative of the Russian Federation Foreign Ministry Mikhail Kaminin.

The United Kingdom Prime Minister Tony Blair called the Pyongyang's actions "absolutely irresponsible".

Japan's new Prime Minister Shinzo Abe held talks with Chinese leadership in Beijing. Mr. Abe said that he intended to coordinate his response with that of the South Korean government and added that he was in contact with the leadership of the U.S. and China. Japanese Cabinet of Ministers held an extraordinary meeting in Tokyo and established an ad hoc commission.

As experts note, the test was commemorated to the 9<sup>th</sup> anniversary of Kim Jong-II's nomination as Chairman of Korean Workers' Party and was held a day in advance of UN election of the new Secretary General (South Korea's Foreign Minister Ban Ki-Moon was running for this post).

DPRK's nuclear weapon test is changing the balance of powers in South East Asia and will bring about new concerns that sophisticated nuclear devices will end up in pariah States or terrorist groups.

## **First experience on Additional Protocol implementation in Ukraine**

***Serhiy Lopatin,***

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Nuclear weapons non-proliferation regime, that has been functioning since the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) had entered into force in 1970, has a hard time at present. Nowadays problems of non-proliferation are determined by tension around Iran's nuclear program, launch of ballistic missiles in July by "(obstinate)" North Korea, that withdrew from NPT, carrying out work on nuclear weapons making and is not going to accede to NPT and de facto is a nuclear state. An application of a double standard caused instability of non-proliferation regime appeared last time from one hand due to the threats to Iran (aimed) concerning sanctions to be imposed in case of refusal enrichment of uranium and from the other hand in readiness of wide scale cooperation in nuclear sphere with India, that is not going to accede to NPT and de facto is a nuclear state.

There are fears expressed among experts about nuclear weapons threat in unstable regions or acquisition of nuclear explosive devices by terrorists. Let's remember recent armed conflict with participation of one of a country that possessed nuclear weapons and did not accede to NPT.

It is evidently that nuclear countries facilitated actual proliferation of nuclear weapons that in 70-80's of the last century exported dual-use technologies to countries aimed to develop their own nuclear military programs. When at the beginning of 90's a secret nuclear activity of Iraq on uranium enrichment was revealed and it was not declared by the IAEA according to the Safeguards Agreement relating to the NPT, finally governments of the countries recognized existed threat for peace. There was a perception on necessity of efficiency and effectiveness of safeguards regime, introduction of new approaches of control that could exclude not only switching over of nuclear materials from peaceful use to military purpose but carrying out of secret nuclear activity altogether that has come. It was fated that development of new approaches had been (was) timed to the conference on NPT in 1995 where the agreement's fate had been (was) decided. It should add positive arguments to supporters of unlimited terms of NPT prolongation; therefore the program of safeguards was called "93+2".

Based on this program a Frame Protocol Additional to the Safeguards Agreement was developed by international team of experts. It was approved by the Board of Governors in 1997 as INFCIRC/540. At present the Additional Protocol and other treaties on comprehensive safeguards are representing today's safeguards standard and effectiveness of increased safeguards as higher as many more countries are implementing them. How implementation of the Additional Protocol is strengthening the IAEA safeguards? Compare to the requirements of Safeguards Agreement this could be reached mainly by two new countries' obligations in law: providing wide information concerning nuclear activity including such activity in the past and plans calls for nuclear cycle development, exports/imports of goods, that sound to this activity and inspector access to sites that have or had relation to the nuclear activity in the past. The Agency is analyzing information received from the state compare to those from different sources, particularly mass media, Internet, other countries regarding export/import activities of this country with an opportunity to receive an access to any site in its territory (exception provided in the text of the Additional Protocol) and to verify this information or to take samples from the environment. Indicated measures give an opportunity for the Agency either to provide conclusion on absent of undeclared nuclear activity or recognize undeclared activity of a state from the beginning, i.e. prior to creation of explosive device.

The same time implementation of the Additional Protocol due to mentioned measures and modern technique, remote monitoring in particular, gives an opportunity to reduce inspections

quantity without loss of effectiveness of results at nuclear facilities, other objects where the nuclear materials are used.

Ukraine signed the Additional Protocol on 15 August 2000 but it was necessary 5 more years for the Additional Protocol to take into force by means of its ratification by the Law of Ukraine. Many people that took part in concord of the draft of the Law had seen only negative aspects of this Additional Protocol. In fact it was impossible to avoid the “initial” weaknesses due to NPT itself, i.e. regarding different conditions for nuclear and non-nuclear countries. To a certain extent the Additional Protocol restricts state sovereignty regarding activity on nuclear energy use, toughs upon sensitive commercial information or state secret. But first of all there is confidence of collective security in the world owing to this regime. That is why at present this document has been brought into force by 77 countries including the EU countries. Indeed due to existence of non-proliferation regime, that significantly supported by implementation of the Additional Protocol there are only several countries in the world that have not joined NPT and was able to create nuclear weapons after that. According to the expert estimations in case of absence of NPT at present it would be from 40 up to 50 states, able to apply nuclear weapons.

It should be remembered that nuclear energy in Ukraine 100 percent depend on import of the nuclear fuel and it is no far that Nuclear Supplies' Group will count the Additional Protocol implementation as a prerequisite to nuclear materials and technologies provision to each country. Fulfillment of the ambitious challenges of Energy Strategy of Ukraine till 2030, particularly regarding nuclear energy development, production of owns nuclear fuel is possible only on a basis of acceptance of existed regulations on the nuclear activity control. The path, chosen by Iran, Northern Korea and Iran unlikely could be an alternative of this regulation.

Following this course for support of non-proliferation of nuclear weapons regime and Strategy of Integration to the European Union, Ukrainian Parliament in November 2005 passed a law on ratification of the Additional Protocol. During 180 days from 24 January 2006 when the Law has been taken into force, Ukraine was obliged to provide the Agency a declaration with detailed information on nuclear activity of the State. In view of time limit for preparation of the declaration, implementation of measures envisaged by the Additional Protocol started in the State Nuclear Regulatory Committee prior to its ratification. Appropriate unit has developed a Plan of measures on implementation of Additional Protocol requirements. According to this Plan after signature of the Law by the President of Ukraine due to an order of the State Regulatory Committee of Ukraine Interdepartmental Commission has been established. It was obliged to work some time for implementation of the following objectives of the mentioned Plan: development of the draft legislative regulation for fulfillment of requirements of the Additional Protocol, preparation of list of enterprises, information on their activity that under the requirements of the Additional Protocol and finally preparation of the declaration itself. The working group comprises of representatives from 8 Ministries, other central executive authorities, but the more significant amount of information subject to declaration referred to the nuclear fuel cycle enterprises of the Ministry of Fuel and Energy. In this connection after approval by the working group of the draft legislative regulation and starting procedure of its approval according to the existed rule there were not necessary to provide further meetings and formally its work was terminated, beside working relations was maintained constantly.

Practical assistance for Ukraine on the preparation of initial declaration has been provided by the IAEA i.e.: with the help of the Agency there were two meetings this year: 7-8 March in the IAEA Headquarters technical meeting for Ukrainian experts (7 participants) with the aim to initiate preparatory work on Additional Protocol implementation in the appropriate ministries, and 11-12 April in Kiev seminar devoted to the declaration completion (35 participants).

In order to fulfill international obligations, enactment of the Cabinet of Ministers as of 15 June 2006 N 834 approved an Order of implementation of Additional Protocol requirements to the Agreement for the Application of Safeguards relating to the NPT. This act stated requirements

on preparation and submission to the IAEA appropriate information according to the Additional Protocol from the ministries, other central executive bodies, National Academy of Science. It also envisages in case of inquiry from the IAEA on the sites access provision for the IAEA inspectors in the targeted time.

Initial declaration has been prepared in time due to efforts of many specialists, responsible for nuclear materials accountancy on more than hundred of Ukrainian enterprises and work in appropriate authorities of executive power. It has been registered in the Agency on 20 July this year. The Declaration has been written on the compact-disk and its capacity is about 100 Mb.

The lion's share of efforts on declaration composition is collecting of appropriate information about numerous enterprises, that have small amount of nuclear material used as biological protection in gamma-defect scope, gamma-therapeutical equipments, containers for transportation of high radiological sources – all nuclear materials, that are not so important in terms of non-proliferation but are under the IAEA control according to the Safeguards Agreement. According to this Agreement a State has the right to exempt from the IAEA safeguards up to 20 ton of such material. In this concern the State Nuclear Regulatory Committee applied to the IAEA with appropriate request and at that time we are waiting for Agency's approval. But for Ukraine this amount is insufficient even for exemption from safeguards of nuclear materials of medical organizations since one gamma-therapeutical apparatus could contain more that half ton of reduced-enrichment uranium. And one hospital can has several of such items.

This is to testify that the traditional safeguards system that was founded on the basis of the Agency's document INFCIRC/153 is worth not only to modify by means of acceptance by states of additional obligations according to the INFCIRC/550 (Model Additional Protocol) but to include amendments to some Articles of the Safeguards Agreement bearing in mind that some statements are obsolete after a number of years.

As for the second part of Additional Protocol requirements, i.e. provision of additional access, in August of this year the Agency for the first time tested this requirement at site of Kharkov Physical-Technical Institute after appropriate claims. Despite that it was the first notice for 24 hours, access has been provided in time. From my point of view we were able to avoid any problems due to good practice of the Institute i.e. the safeguards service and physical protection service are under the common rule of the Deputy Director of the Institute. From my point of view there are no sufficient interrelations between specialists of these two equally important systems at the other enterprises first of all NPPs. First ones provides protection of nuclear facilities, another ones fulfill obligations of Ukrainian legislations on nuclear weapons non-proliferation avoiding some time to accept obligations of the first ones. If specialists on physical protection were assigned for the fulfillment of the state international obligations without detriment to an object safety, these obligations could be executed more effective. I think that experts of both systems should make joint efforts in order to make up a deficiency.

As an example of such uncoordinated activity of two systems could be such a situation. The IAEA has been installing its monitoring systems on the Ukrainian NPPs (as for NPPs of other states as well), provided the Agency to control the fulfillment of obligations by the state concerning use of their nuclear materials according to the declared purpose. The monitoring system contains measurement instrumentation that records the results of observations for further verification by inspectors during routine inspections. In order to decrease quantity of such inspections these systems have been provided with telephone communication wires in order to be able to send encrypted data to the Agencies Headquarters in Vienna. According to schedule these monitoring systems have been installing for several years, but issues of connection provision are solving still by physical protection specialists. The same time after ratifying the Additional Protocol Ukraine has taken an obligation not only to give an opportunity to install Agency's equipment but to make use of communication system with the Agency and to provide protection

of this communication. For example it is necessary to mention Kharkov Physical-Technical Institute where application of the remote monitoring system allowed the IAEA to halve inspections quantity.

Hence Ukraine has taken first steps on implementation of the Additional Protocol and at present has fulfilled its obligations; thereby make a contribution to strengthen of nuclear weapons non-proliferation regime. At present the Agency has to analyze and verify information provided in order to formally confirm in its annual report “the absence of undeclared nuclear activities in Ukraine” i.e. holding to NPT terms. According to experience of other countries that have similar nuclear industry, this process spreads from 3 to 5 years.

## **Some nuclear-facility physical protection concerns and possible ways to address them**

**Sergiy Kondratov, Olga Kosharna**

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Under globalization an explicit tendency is observed of growing interrelations and interdependencies among elements of the world energy infrastructure. This makes it clear that no country is able to protect itself against existing global threats on its own. Global challenges require global responses and therefore the challenge of assuring global energy security was a focal point at this year's G8 Saint Petersburg Summit that resulted in adopting the *St. Petersburg Plan of Action to enhance global energy security*. The action items envisaged in the Plan include securing critical energy infrastructure as an important task to tackle.

However, joint world community action to create a global nuclear safety and security regime is fruitless without effective action to be taken to that effect at the national level.

### **Physical protection as the basis for nuclear facility security**

Physical protection of nuclear material and facilities (hereinafter – physical protection) is a key element in countering the threats of nuclear proliferation and nuclear terrorism and is the crucial part of efforts to ensure nuclear energy security.

The world community is well aware of the role physical protection currently plays, and it is reflected in relevant international documents. Particularly, in July 2005, Ukraine as one of 88 IAEA and Euroatom Member States adopted the text of *Amendments to the Convention on the Physical Protection of Nuclear Material*, its ratification by Ukraine pending. Speaking on the subject, I would like to refer to Preamble Clause 3 of this document reading that “*physical protection is of vital importance for the protection of public health, safety, the environment and national and international security*”<sup>3</sup>. Apart from that, due attention is devoted to physical protection in the text of *the International Convention for the Suppression of Acts of Nuclear Terrorism* that Ukraine ratified this year.

Ukraine is facing a number of challenges related to physical protection assurance and largely pre-determined by that legacy that the adolescent nation had inherited from the former USSR. The most important historical factors affecting the status of physical protection in Ukraine may include the fact that the nuclear industry in the former USSR was actually part of the military-industrial complex, which still affects the degree and scope of information secrecy as far as nuclear issues are concerned, determines the role of law-enforcement authorities in decision-making on protection of nuclear material and nuclear facilities, and affects staffing policy in this area.

### **Regulatory and legal support to the State's physical protection system**

The subject of improving the regulatory and legal framework for physical protection has become especially sensitive as of recent. Existing national regulatory framework, on the one hand, is complicated and controversial, on the other hand – has multiple gaps to be bridged. Ukrainian law amendments, the drafting of regulatory acts developed pursuant to specific articles of the *Laws On the Use of Nuclear Energy and Nuclear Safety* and *On the Physical Protection of Nuclear Facilities, Nuclear Material, Radioactive Waste, and Other Sources of Ionizing Radiation* were sporadic in nature and entailed controversies, terminology ones to begin with. For all that, some basic notions, universally acknowledged terms and approaches applied by

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<sup>3</sup> Conference to Consider and Adopt Proposed Amendments to the Convention on the Physical Protection of Nuclear Material, CPPNM/AC/L.1/1, 28 April 2005 (quoted from IAEA website [www.iaea.org](http://www.iaea.org)).

advanced countries with highly developed nuclear industries failed to be incorporated in our physical protection regulations.

Specifically, Ukrainian law has failed to incorporate such a State physical protection system (PPS) cornerstone, as the “design basis threat”<sup>4</sup>, while it was back in 1999 that the IAEA document *Physical Protection of Nuclear Material and Nuclear Facilities* (/INFCIRC/225/Rev.4) and other Agency documents recommended application of this term and the concept of State physical protection system establishment on the basis of design basis threat. Foreign experts have repeatedly brought this gap in physical protection regulation to the attention of relevant Ukrainian governmental authorities, including the findings of several IAEA IPPAS-missions<sup>5</sup>.

It was this August only that the term “design basis threat”<sup>6</sup> was introduced into the national regulatory framework, but its substance is yet to be developed and approved by regulation as appropriate. Progress in this area is particularly inhibited by the fact that the State has yet to identify the competent authority to assume responsibility for organization of this regulation preparation and maintenance once it enters into force.

Until now a number of regulations necessary for physical protection regulatory activities are missing in the national legislation. It primarily refers to licensing and supervisory activities, particularly to establishing explicit requirements and criteria for the operating organization’s ability to assure the required physical protection level at each stage of its nuclear facility’s lifetime. According to universally accepted approaches, the operator is expected to substantiate its ability to do so to the State nuclear and radiation regulatory agency in order to obtain an operating license for individual stages of the nuclear facility’s lifetime. In the absence of a design basis threat concept approved nationwide and of other regulations, verification of physical protection system effectiveness for a specific nuclear facility is stripped of methodology basis.

Joint training in physical protection involving NPP personnel, representatives of the Ministry of Fuel and Energy, SNRCU, and law-enforcement authorities is actually reduced to examinations of interaction among all parties concerned. Without doubt, such training is useful, but it fails to provide accurate information on the actual capability of nuclear facility physical protection systems to withstand existing threats. On the other hand, without a clear definition of design basis threat, it is not unlikely that the current physical protection systems provide for an excessively high level of protection, which, accordingly, entails overexpenditures on establishment and maintenance of such systems and questions reasonability of their upgrading.

In a globalized world, outstanding physical protection issues in a separate country jeopardize other countries’ national security and international security in general. The U.S. Department of Energy decided to assist Ukraine in creating a harmonized and stable regulatory system for nuclear material physical protection, accountancy, and control. Project work began this year and the first part of the project was devoted to reviewing existing physical protection regulatory and legal bases in Ukraine for consistency with the internationally proven list of structural elements necessary for a State’s physical protection system to function. Owing to such a methodology approach, essential elements of Ukrainian State’s physical protection system were identified that are not covered by effective regulations.

A study of this issue has shown that this is the case for a predominant majority of structural elements of the State’s physical protection system. An analysis undertaken jointly with DoE

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<sup>4</sup> Design basis threat is defined as “the attributes and characteristics of potential insider and/or external adversaries, who might attempt unauthorized removal of nuclear material or sabotage, against which a physical protection system is designed and evaluated” (see: “*The Physical Protection of Nuclear Material and Nuclear Facilities*” /INFCIRC/225/Rev.4, IAEA, Austria, 1999, p.2).

<sup>5</sup> International Physical Protection Advisory Service.

<sup>6</sup> SNRCU Order dated 04.08.2006 № 116 *On Approval of Physical Protection Rules for Nuclear Facilities and Nuclear Material* (registered with the Ministry of Justice 21 September 2006 № 1067/12941).

experts identified the need for Ukraine to develop 22 physical protection regulations in the near future (for comparison – 5 regulations only for the nuclear material accountancy and control system), and that with legislation amendments unaccounted for, because in this case the project duration and budget is estimated by the U.S. to end up much in excess of that.

Here is a fact to illustrate that Ukraine needs assistance in this area. The Law of Ukraine *On the Physical Protection of Nuclear Facilities, Nuclear Material, Radioactive Waste, and Other Sources of Ionizing Radiation* entered into force in October 2000 and it was no sooner than in May 2003 that a legislative act was passed to amend and supplement Ukrainian laws in connection with the adoption of this Law<sup>7</sup>. Looking back at the previous experience, one can also predict serious trouble for efforts to prepare for ratification of the *Amendments to the Convention on the Physical Protection of Nuclear Material*, signed by Ukraine together with 89 IAEA member States in July 2005. Because keeping in mind this year's ratification of the *International Convention for the Suppression of Acts of Nuclear Terrorism*, it will be necessary to amend a large number of Ukrainian legislative acts, which will require a transition to an essentially higher level of law-making and norm-making work organization by implementing a systemic approach to developing the regulatory and legal bases at the interagency level, as well as by mobilizing all manpower available.

### **Challenges of implementing a uniform engineering policy on physical protection system instrumentation**

Ukraine lacks conditions necessary to implement a uniform engineering policy as far as the engineering instrumentation component of nuclear facility physical protection systems is concerned. The current practice is that each NPP is trying to address the issue of engineering and hardware support to NPP physical protection systems on its own. The main reason for that is, on the one hand, lack of physical protection norms based on a clear definition of design basis threat and vulnerability assessment of critical nuclear infrastructure elements, and on another hand, funding of physical protection measures based on a “leftover principle”. Resultantly, some nuclear facilities still operate equipment manufactured back in the USSR.

The above-mentioned physical protection regulatory framework review under the U.S. DoE Project found that the following would need to be developed in order to implement a uniform engineering policy in this area:

- Technical requirements to PPS design, to its elements and instrumentation and engineering protection facilities;
- Procedures for PPS departmental controls;
- Requirements to organizing structural subdivisions for physical protection at NPPs and facility security control centers.

This category of documents refers to departmental requirements to be developed by central administrative authorities responsible for governmental management of physical protection, as well as by the National Academy of Sciences of Ukraine. Without departmental standards and requirements it is impossible to establish a certification system for physical protection equipment. As a result, the current legislative norm requiring that such equipment be certified is not met<sup>8</sup>.

### **Challenges of organization and staffing**

Many of the challenges discussed above are associated with shortcomings of the staffing policy

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<sup>7</sup> See: the Law of Ukraine *On Amending Several Laws of Ukraine in Connection with the Law of Ukraine On the Physical Protection of Nuclear Facilities, Nuclear Material, Radioactive Waste, and Other Sources of Ionizing Radiation* dated 15 May 2003 № 747-IV.

<sup>8</sup> See: *Physical Protection Rules for Nuclear Facilities and Nuclear Material*, approved by State Nuclear Regulatory Committee Order dated 04.08.2006 № 116

in this area, which has in fact undergone no essential modifications since Ukraine became independent.

The new political and geopolitical realities, Ukraine's European and Euro-Atlantic ambitions certainly warrant a fundamental revision of the staffing policy within the security sector in general and physical protection assurance in particular. And it has already been reflected in Ukrainian international commitments (see, for example, the NATO-Ukraine Annual Target Plan for 2005, Objective I.1.A.7 "strengthen civilian and democratic control over the armed forces and the whole security sector") and in measures to transform and redistribute the responsibilities of law enforcement and intelligence agencies to meet European and Euro-Atlantic standards.

The ill-balanced staffing policy reflected in law-enforcers' domination (not always justified) of senior positions in physical protection needs adjustment, and Ukraine has all chances to take efficient action to that effect.

Owing to international assistance, our State has made considerable progress in creating the infrastructure for training and retraining of personnel in Physical Protection, Nuclear Material Accountancy and Control. Specifically, the Sevastopol National University of Nuclear Energy and Industry trains students in Physical Protection, Nuclear Material Accountancy and Control. The discipline "Physical Protection, Nuclear Material Accountancy and Control" has been taught to all students since September 1999. The first enlistment of students majoring in Physical Protection, Nuclear Material Accountancy and Control occurred in 2002.

In addition, large experience in training, re-training, and advanced training has been accumulated by the George Kuzmycz Training Center for Material Protection Control and Accounting of Nuclear Materials under Ukrainian Academy of Sciences Kiev Institute for Nuclear Research, where hundreds of representatives of governmental (including law enforcement) authorities, nuclear industry, scientific and design institutions have received training developed by both foreign and domestic specialists.

To ensure competition among candidates to hold all senior positions in physical protection subdivisions of the State authorities responsible for management and regulation in this area can be a logical step to address the staffing problem. For the future, it is our belief that Ukraine needs to create a system for training and re-training of physical protection personnel including development and implementation of a special expert training program for central administrative authorities.

Modern approaches and international experience also warrant essential modifications in administrative approaches to security of energy infrastructure facilities. The monopoly of governmental organizations in this business inhibits any efforts to optimize costs for physical protection of these facilities.

### **Conclusions and suggestions**

Summarizing the above, the following conclusions and suggestions can be made:

1. Physical protection of Ukrainian energy infrastructure facilities warrants a systemic approach to addressing concerns in this area.
2. Such an approach should be implemented in the context of maximum approximation of the national law to relevant international documents, primarily – the *International Convention for the Suppression of Acts of Nuclear Terrorism* ratified by Ukraine and *Amendments to the Convention on the Physical Protection of Nuclear Material* signed by Ukraine, as well as IAEA documents on the subject.
3. To define and adopt the so-called national design basis threat followed by implementing a developed methodology as applicable to other critical nuclear infrastructure facilities should be the first step on the path of establishing a cost-optimized State's physical protection system for nuclear facilities.

## **Global Partnership Program for Ukraine. Whether there is a progress?**

***Sergiy Kondratov***

### **INTRODUCTION NOTES**

When the author took part in arrangements for the conference devoted to Ukraine's joining the Global Partnership as a recipient, the idea of which was pushed forward by the representatives of the International Cooperation Programme (ICP) of the Swedish Nuclear Power Inspectorate (SKI), then, on the one hand, it seemed that that event would be resulted in an essential impulse to the international contacts of Ukraine with donor countries, and these contacts would deepen and broaden. On the other hand, against the background of optimistic hopes some doubts arose because that it were the representatives of those foreign state authorities and NGOs who already were actively involved in cooperation with Ukraine that the invitations were sent to. And, at least for most of those authorities and organizations, very good working relationships with the Ukrainian counterparts were already established on a bilateral basis. So, it is not surprising that it were such state authorities and institutions as SKI (Sweden), GRS (Germany) and STUK (Finland) well-known in Ukraine that were the main conveners and sponsors of the conference.

In this connection additional questions arose: "Why we need for something else for our efforts in this field if we already have mutual interests in cooperation and its positive results improving the level of global security?", and "What are additional possibilities for WMD non-proliferation provided within the GP format?"

Answers to these questions do not seem simple and require an additional analysis, nevertheless it may be stated that to achieve the GP objectives the donor states have to allocate essential funds, and necessity to do so must be clear not only for some experts and state officials but also for public (tax payers) in those states.

Whether the project proposals presented at this conference met the above requirement? In author's view, - not always. It should be mentioned that the concept for arranging and conducting the conference was based on the idea that this event had to be a forum providing contacts (even if very preliminary) between potential donors and recipients. The organizers made their best to provide such contacts on a maximum wide basis. Taking into account such phenomenon as "*recipients competition*"<sup>9</sup> it was decided to submit all proposals received from Ukrainian state authorities and organizations as well as research institutions and NGOs, etc. excepting only those appeared to be irrelevant in terms of the topic of the conference on the GP program. Why such proposals were also submitted might be a subject to an additional analysis.

The approach applied was resulted in both positive and negative consequences. On the one hand, a full spectrum of possible directions of cooperation in the framework of GP program in terms of Ukrainian vision of the problems was submitted to potential donors, on the other hand, in this case there was no clear prioritization of existing problems and possible ways to their solving due to donors assistance. As a result, the GP donors had to determine by themselves the most attractive proposals basing on the analyses of the papers presented during the conference and project proposals published and distributed among the participants. In this context it should be noted that some "competition" exists also on the donor side. According to Urban Ahlin such a phenomenon sometimes reveals itself when donors seek for more "demonstrative" projects (see footnote 9).

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<sup>9</sup> Mr. Urban Ahlin, Head of the Swedish Parliament's Committee on Foreign Policy in his speech during the formal dinner devoted to the opening of the conference among peculiarities of the international cooperation in this field specified the competition sometimes observed both among recipients and donors.

From our point of view, for further international cooperation in this field and improvement of efficiency of international programs, initiatives and projects implementation the analysis of project proposals submitted at the GP conference in Kyiv would be of certain use, especially, when comparing with those accepted by donors (with or without changes). Such an analysis will assist to identify in addition to some “natural” differences in attitudes caused by different roles played by donors and recipients, certain regularities taking into consideration of which might be of use for harmonization donors and recipients approaches to cooperation within a framework of the GP program.

### **Brief analysis of the project proposals submitted by the potential recipients**

In total **40 project proposals** were submitted at the conference including such potential recipients as follows:

<b>Name of authority/organization (potential recipient)</b>	<b>Number of project proposals submitted</b>	<b>Total budget of the projects proposed, \$</b>
<b>Central executive authorities</b>		
State Nuclear Regulatory Committee	3	from 105, 000
Ministry of Fuel and Energy	2	80, 000
State Service of Export Control	1	80, 000
<b>Total</b>	<b>6</b>	<b>from 265, 000</b>
<b>Subdivisions of the central executive authorities</b>		
Internal troops of the Ministry of Internal Affairs	1	40,000
Southern, Azov and Black Sea <sup>10</sup> regional offices of the State Border Guard Service	2	1,700,000
<b>Total</b>	<b>3</b>	<b>1,740,000</b>
<b>Institutes of the National Academy of Sciences</b>		
Institute for Nuclear Researches, Kyiv, (KINR)	6 ( incl. 3 for Training Center + 1 jointly with the KIPT)	445,000
National Scientific Center "Kharkiv Institute of Physics and Technology" (KIPT)	5 (1 jointly with the KINR)	1, 560,000
Institute of Environment Geochemistry (IEG) <sup>11</sup>	2	1,230,000
<b>Total</b>	<b>13</b>	<b>2,235,000</b>
<b>Scientific institution of other subordination</b>		
INSP <sup>12</sup>	2	220 000 (for 3 years)
<b>Higher education institutions</b>		
SNUNEI <sup>13</sup>	5	1,750,000
ONPU <sup>14</sup>	1	120,000
KNU <sup>15</sup>	1	1,600,000
<b>Total</b>	<b>7</b>	<b>3,470,000</b>
<b>State companies, enterprises and institutions</b>		
NNEGC "ENERGOATOM" <sup>16</sup>	4	10,650,000

<sup>10</sup> The office is charged with responsibility for the sea border guard on the Black Sea and Sea of Azov

<sup>11</sup> The IEG is also subordinated to the Ministry for Emergencies

<sup>12</sup> Institute of National Security Problems under the National Security and Defense Council of Ukraine

<sup>13</sup> Sevastopol National University of Nuclear Energy and Industry

<sup>14</sup> Odessa National Polytechnic University

<sup>15</sup> Kharkiv National University

<sup>16</sup> National Nuclear Energy Generating Company ENERGOATOM

SSE ChNPP <sup>17</sup>	1	300,000
State Enterprise "38 Department of the Engineering Units"	1	750,000
Ukrainian State Enterprise "Izotop"	1	1,000,000
<b>Total</b>	<b>7</b>	<b>12,700,000</b>
<b>Nongovernmental organizations</b>		
STC <sup>18</sup>	3	From <b>100,000</b>

The most active in promoting the project proposals were the institutions of the National Academy of Sciences of Ukraine (NASU) which submitted to donors' consideration 13 proposals (32.5% of total number).

Such activity, in our opinion, might be caused by insufficient funding of Ukrainian science and that the NASU institutes, first of all the KINR and KIPT, from the very beginning of Ukraine's independence were heavily involved in international projects and programs in the field of MPC&A, counteraction illicit trafficking in nuclear materials and other radioactive sources, export control. These institutes have gained considerable experience of cooperation with other countries and international organizations and are staffed with high-qualified scientific and engineering personnel.

The second position with 9 proposals (22.5%) is occupied with the central executive authorities (taking into consideration the proposals in which as recipients the subdivisions of these authorities were specified). In six of these proposals the central executive authorities were specified as assistance beneficiaries and recipients at the same time. In this case it is necessary to note that *"when recipients are ministries, other central or local executive authorities the texts of treaties (agreements, memorandums, protocols) on technical and economical cooperation which regulate relationships between a donor and a recipient shall be agreed with the Ministry of Economy and on the Matters of European Integration"*<sup>19</sup>.

Quite actively project proposals were promoted from the Ukrainian higher education institutions (7 proposals or 17.5%). The most of them (5) were prepared by the SNUNEI. It is easy to suppose that in this particular case also the considerable influence was made by active participation of the Sevastopol University in a number of international projects including with IAEA involvement addressing, first of all, MPC&A.

The same number of project proposals was put forward by Ukrainian state companies and enterprises (most of them were in sphere of management of the Ministry of Fuel and Energy). If evaluating the average budget of these proposals among others it will be the highest (more than \$1,800,000). It is due to the fact that several proposals addressed the large scale objectives – updating the physical protection systems of the Ukrainian NPPs.

It is worth to pay attention to a small share of proposals submitted from the non-governmental sector (only 7.5%). And all of them came from one NGO – STC, which has been an active player in this field for the long period of time cooperating with foreign partners (the main directions – export control and WMD nonproliferation). This fact underlines the following: first, the role of the Ukrainian NGOs in this field is not considerable yet; second, the STC is the only Ukrainian NGO working efficiently in the field of WMD non-proliferation. Bearing in mind the objective of strengthening the role of civil control over the security sector including the role of NGOs and

<sup>17</sup> State Specialized Enterprise Chernobyl NPP

<sup>18</sup> Scientific and Technical Center for the Export and Import of Special Technologies, Hardware and Materials

<sup>19</sup> The Cabinet of Ministries Decree "On Establishment of the Integrated System for Attraction, Use and Monitoring of International Technical Assistance" of February 15, 2002, N 153.

civil experts specified, in particular, in the action plans Ukraine – NATO and Ukraine – EU, such a situation should be recognized as inadequate in terms of the modern world trends.

The consideration of the project proposals highlights also insufficient activity of research institutions and centers other than belonging to the NASU. Only one research institute, namely, INSP subordinated to the National Security and Defense Council of Ukraine, submitted its proposals for involving in the GP program while the complex of problems covering international cooperation in the GP format will directly influence on national security of Ukraine and, in this connection, shall be a subject to serious studies and researches funded from different sources including international assistance.

One more peculiarity of the proposals presented from the Ukrainian side is that of them only two (by one from the INSP and the STC) specify the forming of expert community, improvement the level of interaction and information exchange, promotion for the development of civil society elements in this field as expected results of project implementation. On the one hand even mentioning about these important directions of cooperation is an indication of growing awareness about necessity of creation of the peculiar kind of "crystallization centers", around which the development of the civil control over state policy in the field of security will go; on the other hand, insufficient number of such proposals shows that the above process just has started in Ukraine and needs for considerable assistance.

#### **The brief analysis of the preliminary results of donors' selection of the project proposals submitted from Ukrainian side**

The analysis of project proposals selected is primarily founded on information given by the U.S. Department of State and deals with **15 project proposals** transferred to the Ukrainian authorities in a revised form (it is true for the most proposals). Unfortunately, it is hard to receive relevant information formally for the reasons to be discussed in short below.

The quantity distribution of the accepted project proposals by potential recipients appeared to be the following:

Central executive authorities (together with their subunits) including	13	≈ 86%
State Border Guard Service (including 4 with State Customs Service)	6	≈ 40 %
State Nuclear Regulatory Committee	5	≈ 33 %
Ministry for Emergencies (1 with State Enterprise "Radon")	2	≈ 13 %
NASU	1	≈ 7 %
STC	1	≈ 7 %
Working group established by the Parliament ( <i>Verkhovna Rada</i> ) and the Security Service	1	≈ 7 %

Despite the fact that among Ukrainian proposals the most numerous were those from the NASU (32.5%), the pattern of projects to be supported by the U.S. Department of State is rather different, - only one project (7%) for the NASU institute expected to be funded by the U.S. And the title of the project is absolutely new which was not even mentioned during the Kyiv conference. This is an indication of processes launched by the above conference; - the contacts established in its course have given positive results.

In turn, in the lion's share of the project proposals accepted and modified by the Department of State, namely, - 13 ( $\approx 86\%$ ), the central executive authorities were specified as beneficiaries and recipients at the same time. Beyond state authorities and the KINR only the STC presenting Ukrainian NGOs was selected as a potential recipient of assistance.

The separate entry is the project proposal concerning rendering assistance to the working group established by the Ukrainian Parliament and Security Service of Ukraine for legislative support to countering nuclear smuggling. In this case it may be expected that the project in this format will face certain difficulties when arranging a contract since the above mentioned working group is not a physical or juridical person, which is allowed to receive funds for "development of new laws" as it was mentioned in the project proposal under consideration. This project proposal needs for clarification and follow-up revision in order not to lose the important direction of cooperation.

Generally, even basing on these limited data it can be preliminarily concluded that it is the state executive authorities the American side prefers to cooperate with in Ukraine. And this can be considered as sufficiently natural fact since the donor side is also presented by the U.S. executive authority. Only one project proposal supported by the Department of State specified as a recipient the NGOs, namely, the STC. This also has its explanation, since the STC's project proposal was a single one from the Ukrainian side addressing the counter corruption measures in the field of nuclear security while the state authorities proposed nothing for reducing the level of corruption in our country.

Thus, the "state authority-to-state authority" format of cooperation within the framework of the GP program is preferable to the donors, but in this case both donors and recipients can face difficulties connected with the complicated procedures for registration technical assistance to the Ukrainian central executive authorities. Especially, it will be the most relevant for the projects aiming at resource and personnel support to the SNRCU and its regional offices.

In this connection, serious attention and world-wide support will be given to the proposal of the well-known American politician, former senator Sam Nunn. In his statement about the apparent North Korean nuclear test made on October 9, 2006 he proposed as one of the measures to reduce the threats of nuclear weapons, materials and technologies spread and nuclear terrorism "*creating a global Nunn-Lugar-type initiative to help countries meet their nonproliferation obligations including UN Security Council Resolution 1540*". The experience gained by Ukrainian authorities from implementation Nunn-Lugar program clearly indicates that a lot of international cooperation problems including exemption technical assistance from the taxation and customs fees, can be resolved within the framework of such comprehensive initiatives.

The consideration carried out addresses only those project proposals which were either accepted or put forward in a modified form by the U.S. Department of State. According to our information the similar approaches are applied to cooperation with Ukraine by other donor countries – Sweden, Finland, Germany, Canada, etc. First of all contacts concerning Ukraine's joining the GP program are carrying out with such state executive authorities as Ministry of Foreign Affairs, SNRCU, SBGS.

### **Some considerations and conclusions with respect to the project proposals and progress in GP implementation in Ukraine**

The above brief analysis of prerequisites of GP program implementation in Ukraine is limited with consideration of the submitted by the potential recipients and accepted by the potential (U.S.) donors. This limitation is due to, first of all, difficulties in receiving official information about GP program in Ukraine caused by insufficient coordination and the poor level of awareness of authorities and other actors in this field about current trends, processes and issues with respect to GP program implementation.

One of the possible ways to approach to resolving the problem of information exchange and interaction is enhancing the role of NGOs, which will be able, as it is done by the Russian PIR Center, to undertake responsibility to distribute relevant information, to create a forum for presenting opinions of both authorities officials and independent experts, to develop and to arrange contacts with foreign colleagues, to carry out comprehensive training in the field of nonproliferation, etc.

Basing on available information about the GP program progress in Ukraine on its route from development of project proposals to development of relevant terms of references it could be noted that the most successful are those directions of cooperation about which the clear understanding has been produced both on the donor and on the recipient sides. Usually, it is true for those problems to resolve which considerable efforts have been made in the framework of other initiatives, programs and projects. First of all it is true for enhancement of Ukraine's technical capabilities for detecting radioactive materials at the state border. It is the SBGS, the authority responsible for the SLD, that is involved in the biggest number of project proposals to be supported by the U.S. Department of State.

To strengthen Ukraine's capabilities in combating nuclear smuggling the Department of State also proposed assistance in improvement the relevant legislation, providing the nuclear regulatory authority with adequate resources, countering corruption in this sphere, but some project objectives and expected results seem to be to some degree unrealistic.

In general, to improve efficiency of governmental and non-governmental players which either are involved or hope to be involved in GP program implementation it is worth to pay much more attention to coordination and information exchange among program participants, but this problem seems to be an "all-time" problem for all directions of international cooperation. Nevertheless, sharp increase of interaction, cooperation and information exchange among partners is, undoubtedly, an urgent task.

As for questions asked in the introductory part of the paper, as a conclusion, it is possible to say that the potential donors and recipients of the GP program in Ukraine still are in seeking for the most efficient mechanisms and formats of cooperation.

## **Civil Society Structures and Global Partnership Against the Spread of Weapons of Mass Destruction**

***Olga Kosharna***

***Deputy Editor-in-Chief of the "Security & Nonproliferation"***

Currently the trend to growing confidence in independent experts' opinions against the background of it's reducing for information provided by the governmental structures has been revealed in Ukraine. In particular, sociological studies carried out in 2005 indicated that Ukrainians demonstrated considerably more confidence in and positive attitude to professional experts' opinions (23.9%) when comparing with information given by the Government (7.4%). These data have absolutely clearly pointed out both an existing demand to be reliably informed and a quite obvious manner in which this demand could be met, namely, - through information activities of the structures of the civil society in Ukraine which, in it's turn, requires serious efforts for development. This is especially true for a security sector characterized by its traditional closeness. In our view, efficient implementation of the GP program in Ukraine will be substantially depends, in particular, on the role played by the civil society in controlling relevant activities of the state authorities.

The civil control over governmental activities in the field of WMD nonproliferation, including nuclear one, is extremely important for any democratic society. It is hard to overestimate the contribution of Ukrainian non-governmental analytical centers to and their influence on the decision making process in various spheres of society life in the aftermath of dramatic events of the autumn 2004 - winter 2005 period. It is contribution of these elements of civil society that provides the objective and comprehensive analysis of the problems of state development and grounded recommendations for their resolving. The relevant analytical and information materials are published in authoritative media and subject collections, presented during public events (press-conferences, presentations, "round tables", etc.).

Experience gained from both author's work for central executive authorities and cooperation with them as an expert allows to make some conclusions.

Unfortunately, Ukrainian ministries and agencies to be involved in GP implementation are suffered from the limited personnel resources, and this is why the careful monitoring, support and management of any projects through a systematic approach based on analyzing their efficiency, making timely correcting measures and deleting existing obstacles are often impossible under the circumstances. If in project implementation several ministries and/or agencies are involved the situation, as a rule, is worsened dramatically because of lack of coordination and a lot of bureaucratic procedures, number and duration of which are in proportion to the number of parties engaged. On the other hand, in case of project implementation by a single ministry or agency it is usual, unfortunately, that personnel involved in this particular project implementation have no ideas about other projects being implemented in this field, while their results could be of use or influence on this or other project results.

In this connection, it is worth to emphasize it is a non-governmental organization, namely, the Scientific and Technical Center for Export and Import of Special Technologies, Hardware and Materials (STC), that provides under the sponsorships of the Swedish Nuclear Power Inspectorate (SKI) and U.S. Department of Energy (DOE) issuing such unique for their purposes specialized information and analytical journals as "*Security & Nonproliferation*" and "*Export Control Newsletter*". From these journals readers can to learn about changes in relevant legislative acts, new international documents, world trends and international initiatives, problems of WMD nonproliferation regimes, etc.

In the heat of the "orange revolution", when, because of well-known reasons the activities of the governmental bodies and agencies were to some extent paralyzed, the STC appeared to be a single organization which undertook the main responsibility for arranging in due time the "round table" devoted to the outstanding date in the newest history of Ukraine and nuclear

nonproliferation regime – 10<sup>th</sup> anniversary of Ukraine's accession to the Treaty on the Non-Proliferation of Nuclear Weapons.

That event was attended by the representatives of the Swedish and EC embassies as well as officials of the Ministry of Foreign Affairs, the State Nuclear Regulatory Committee, the Office of the National Security and Defense Council of Ukraine, independent experts, researchers and representatives of mass media. Undoubtedly, that event might had a much deeper resonance if it was not recommended to their citizens by some of the Western governments not to visit Ukraine at that time. That is why some of the invited foreign experts and officials could not attend the “*round table*” despite their wish.

In the course of the “round table” the hottest discussion kindled about appropriateness of Ukraine's refusal to possess nuclear weapons in terms of national security, since some of the participants expressed absolutely opposite opinions that was, to some extent, result of the influence of the revolutionary euphoria state and external intervention in the presidential election campaign in Ukraine. One of the important consequences of this event was that some of the journalists due to discussion with the experts changed their mind about the fallacy of Ukraine's decision to abandon nuclear weapons, and that was reflected in their further publications.

Besides, the STC as a technical organizer arranging the International Conference “Control and Security of Nuclear Materials in Ukraine: Global Partnership Agenda Ahead ” (January 2006, Kyiv) to the considerable degree influenced on conference program formulation basing on the results of STC experts studies devoted to the most acute problem connected with Ukraine's commitments on the nuclear nonproliferation regime.

The representatives of ministries and agencies engaged in state policy implementation in the field of nonproliferation expressed repeatedly their appreciation of the editorial boards of the above mentioned journals for useful information published on their pages. Because of constant business overload with current work state employees, mainly, have no possibility of monitoring and analyzing events and trends in this field on a systematic basis, and this has its negative influence on a strategic decision making process.

The lack of funds allocated for analytical work prevents creation of special analytical subunits in ministries and agencies, as well as does not allow ordering analytical studies connected with the GP.

At the same time it is obvious that the role of such NGOs as, for example, the PIR Center in Russia and the Center of Strategic and International Studies (USA) is very important for successful implementation of GP projects. Monitoring the progress of GP program in general and specific projects in particular, preparing analytical reviews by the experts of these centers, etc. are a serious underpins the state authorities in both countries cooperating in the GP format. These NGOs gather at “round tables” the representatives of all branches of power, scientists, independent experts and journalists to discuss current events and urgent problems partners face when implementing projects, and to distribute conclusions and recommendations made upon the results of such discussions. In our view, it is such an “exciter” that is needed in Ukraine to transfer from the stage of consideration of project proposals presented as far back as in January 2006, to the following stage – development of relevant project and contractual documents for project implementation.

In this connection and bearing in mind the above mentioned, the financial support to non-governmental analytical structures within the GP framework as it is made in Russia seems to be a reasonable step to be taken in Ukraine as well.

## **The Yushchenko vs Yanukovich course: foreign policy and security policy**

***Oleksandr Dergachov,***  
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Ukraine has made notable progress in social and political development over the last two years, but it is still far from being in a position when the State's foreign policy is essentially independent from election outcomes. Furthermore, Constitution Amendments in force since January 2006 substantially redistribute the Presidential, parliamentary, and governmental authorities. Today we must admit that decision-making on both foreign policy strategy and specific international issues is going to occur not only in the Presidential environment, but also within the governmental coalition. It is the first time in Ukrainian politics that programmatic documents of parties and blocs should be taken a closer look at. It is for the first time that agreements among themselves and plans they propose seriously gain on importance.

The 2006 elections brought 5 parties and blocs to the Supreme Council of Ukraine. The respective parts of their election agendas that would position the parties in the Supreme Council can be summarized as follows:

The Communist Party of Ukraine (3.66% votes, 21 mandates)

We shall not let fascist cutthroats from OUN-UPA get whitewashed. We shall grant the status of the second State language to Russian. We shall not permit the Canonical Orthodoxy to perish. Our neighbor is dearer than the overseas "uncle". We shall not permit that Ukraine be entangled in the aggressive NATO bloc. We shall strengthen friendly ties with the Russian federation, Republic of Belarus and other CIS countries; make the united economic area treaties a reality.

Socialist Party of Ukraine (5.69%, 33 mandates)

We shall build a Europe in Ukraine. The attitude to NATO shall be determined by Ukrainian people only at a national referendum. We stand for neighborly, mutually beneficial relations with Russia and other countries. The Socialist Party's objectives are social justice, welfare for each family, and a strong, democratic and sovereign State. This is the way we see democratic socialism and European choice for Ukraine.

*Our Ukraine* Bloc (13.95%, 81 mandates)

Foreign policy shall be married to national interest! The key foreign policy objective for Ukraine shall remain integration into European structures. Our priorities continue to include furthering political and economic interests of our State, protecting our citizens abroad, promoting our products at world markets, attracting investment, solidifying Ukraine's achievements outside of Ukraine. In 2006 we shall have completed Ukraine's accession to WTO, making sure the interests of the State and the domestic manufacturer are upheld. Ukraine shall be granted the status of an associated EU member in the shortest term possible.

Yulia Tymoshenko Bloc (22.29%, 129 mandates)

A harmonized foreign policy. We shall clearly define Ukraine's national priorities and protect them at all levels. The foreign policy shall be pursued in the name of the nation, based on peaceful, equitable, and mutually beneficial economic relations with all States that Ukraine has common interests with.

The Regions Party (32.14%, 186 mandates)

Pursuing a policy of good neighborliness with all States that border on Ukraine. Leading Ukraine to European integration by deeds rather than empty mottos, with Ukrainian national interests best protected. Supporting the non-bloc status of Ukraine. Holding a referendum on Ukraine's accession to NATO.

Natalya Vitrenko's orthodox leftist bloc *Popular Opposition* that featured such a goal as "a union with Russia and Belarus" and "protection of Eastern Slavic Civilization and Canonical Orthodoxy" was supported by 2.93% of voters and did not make it to the parliament. The elections proved that neither overtly nationalist, nor purely PR-designed pro-Russian parties had elective potential. Among the former: the All-Ukrainian Party *Liberty* ended up in the 18<sup>th</sup> place among 45 participants, totaling 0.36% while the *Ukrainian National Assembly* came 38<sup>th</sup> with 0.06% of votes. Among the latter: the election bloc of political parties *Pro Union* finished 22<sup>nd</sup> (0.2%), and the *Party of the Putin Policy* 27<sup>th</sup> (0.12%). Demonstrative was a fiasco of the election project "*Opposition Bloc Ne Tak!*" Major resources and efforts invested in it by the social democratic Party of Ukraine (united), primarily featuring anti-NATO propaganda and pro-Russia orientation failed to save one of the most influential political forces of late. Therefore, the elections substantially narrowed the range of really influential political forces and apparently reflected the societal demand for moderation and pragmatism. The Communist Party is an exception, which, however, lost more than 80% of its electorate and does not seem to be able to find a way out of deep crisis.

However, the coalition negotiations lasting from March till August showed finding common approach in some foreign policy issues was a complex endeavor even for "Orange Coalition" Allies – Yulia Tymoshenko Bloc (YTB), *Our Ukraine* Bloc (OU) and the Socialist Party (SPU). Discussions under this format demonstrated that Victor Yushchenko was having a hard time finding support for implementation of his foreign policy guidelines. His election agenda was extremely moderate in this aspect. He promised to make Ukrainian foreign policy honest, transparent, consistent, and economically well-grounded, declaring: "The most important thing for us is the amount of investment drawn to Ukraine, promoting domestic products and international markets, protecting the rights of Ukrainian citizens abroad. Our relations with Russia will be mutually beneficial, friendly and stable. Our partners both in the East and West will see a different Ukraine— strong, reliable, one that abides by its commitments yet is capable of protecting its national interests." And once he had won at last he set forth specific and very ambitious goals that became key for the *Our Ukraine* bloc, namely accession to the EU and NATO.

In the President of Ukraine address to the Supreme Council elected in March 2006, Viktor Yushchenko underscored that Ukraine's foreign policy course should remain invariable and irreversible. Already at the final stage of drafting the coalition agreement involving YTB, *Our Ukraine*, and SPU he emphasized that Ukraine's European and Euro-Atlantic integration was of principle importance for him. All the more when there is a powerful opposition in place and political allies ought to be sought. The coalition negotiations made it clear that the Presidential foreign policy agenda had scarce chances of gaining total support by a coalition of political forces of any configuration. It is less relevant for the pursuit of EU membership, where differing opinions exist as to the pace of reaching the goal and means of furthering national interests at intermediate stages of this lengthy process.

The NATO question became a subject of discussion. YTB is careful in this aspect and promotes the idea of self-sustained security. SPU is in fact ready to support development of cooperation with, but not entry into the Alliance. It is certainly not the conflicting foreign policy views that destroyed the Orange Coalition. Similarly, it does not make sense to think that orientation towards Russia is a serious factor capable of uniting parties in the so-called Anticrisis Coalition formed by the Regions Party, SPU and Communists. Here it is the Regions Party that, once in real power, will not commit itself strongly to ideological guidelines, let alone building its

strategy on anti-Westernism characteristic of orthodox leftists. This party has features of a successor to the Kuchma policy, but also demonstrates understanding of the need to move forward. In part it is explained by failures of the old policies, in part by at least some of its leaders and sponsors being interested in bringing their business activities beyond the post-Soviet area. Even as a Presidential candidate, Viktor Yanukovich had a multi-vector course on his agenda: "Ukraine's participation in world and regional integration processes, Euro-integration programs, cooperation with the Russian federation and other traditional partner States as driven by national interests". The Regions Party and its leaders are deep in trouble as far as their international image is concerned. Its political background determines certain limits in gaining confidence by the international democratic community. Along with that, Moscow's strategy towards Ukraine getting more pragmatic strips this force of original advantages over their "orange" competitors when gaining privileges from the Northern Neighbor is at stake.

Ukraine's economic development strategy developed by the Regions Party is oriented at taking into account the impact of modern global processes and necessary adaptation not only to challenges of ever-growing openness but also to new opportunities promising benefits from participation in supranational markets and international regional associations. The Strategy focuses on extreme importance for the country to further its national interests: "Ukraine must stop being a State with an externally driven sovereignty. In the international context the country must become a full-fledged global player: its destiny – unlike it is the case now – must not be determined by factors of unstable balance in relations among the U.S., Russia and EU. Ukraine can and must become a reality as a full-fledged originator of politically significant decisions. European standards and Euro-Atlantic civilization values while factoring in the inseparable ties with Russia must become a landmark for structural-innovative changes for Ukraine. Unlike those currently in power who have abused the slogan of "Europeanhood" for their own publicity. The strategy envisages consistent promotion and implementation of European standards. But it is important in this process to not only consider the applicability of European standards to Ukrainian economy, but also bear in mind some negative aspects such as overregulation and bureaucracy of EU economy".

The Treaty on the Anticrisis Coalition Establishment between the Regions Party, SPU and CPU envisages: "Carrying out a foreign policy course in accordance with the Constitution of Ukraine, current legislation and generally accepted principles and norms of international law. Creating conditions for achieving full membership in the European Union. Finishing work on establishing the United Economic Area. Passing a decision on joining NATO exclusively based on the legal ramifications of a nationwide, Ukrainian referendum. Developing equal and good-neighborly relations with the Russian Federation and other neighboring countries. Providing diplomatic and other means foreseen in international law to defend the sovereignty, security and territorial integrity and inviolability of the State borders of Ukraine, its political, trade and economic, scientific, cultural and other interests as well as the legal rights of citizens of Ukraine and its legal entities abroad.

Under the new political situation, the State's actual foreign policy will rely on agreement of views between the governmental coalition and the President. The Universal of National Unity signed 3 August by Viktor Yushchenko and the leaders of all political factions save YTB stipulates: "To establish an effective economic cooperation guided by interests of Ukraine with all the interested foreign partners. To make immediate changes to the legal system (given conditions stipulated specifically for Ukraine) necessary for entering the World Trade Organization by the end of 2006. To continue on the course of the European integration with the goal of Ukraine's entrance into the European Union. To steadily adhere to the Ukraine-EU Action Plan, to begin immediate negotiations regarding the creation of a free trade area between Ukraine and the European Union. To complete work on Ukraine's participation in the United Economic Trade Area on the basis of a multi-level and gradual integration on the basis of norms and rules of the World Trade Organization. To create, as a first step, a free trade area without any

restrictions and conditions within the framework of a single European Area. Mutually beneficial cooperation with NATO in accordance with the Law *On National Security of Ukraine* (in accordance with the version of the law that is current on the day of the signing of this Universal). To resolve the question regarding NATO membership via a referendum, which is to take place after Ukraine completes every step necessary for it.” It should be borne in mind that the Law stipulates that full-fledged NATO membership is a key area of security policy and a strategic goal for Ukraine.

The coalition’s enlargement to include Our Ukraine, differentiation between the power and the opposition will bring ultimate clarity to the configuration of political forces. Yet it is clear even now that our country’s real course of foreign policy will be determined in competitive cooperation (or cooperative competition) between the President and the government. The Universal agreements are a compromise and their reliability will depend on adjustment of authorities under the political reform and dynamics of their influence. In any event, it could well be predicted that the relations with key strategic partners will be adjusted. The Yanukovich government has already outlined its propensity for rapprochement of views with Moscow, but reaffirmed its commitment to the European choice. Therefore, some elements of the two-vector foreign policy that featured the Leonid Kuchma presidency are being revived. Nevertheless, it is not going to be a blind carbon copy of the past. Ukrainian political elite has accumulated enough experience to work out a pragmatic course accounting for our international partners’ strategy. It is reflected in the adjustment of approaches to WTO membership and cooperation with EU. While the “orange” power’s predominant features were an ideological approach and a desire to alter the country’s geopolitical coordinates, the new government has already exhibited such new foreign policy features as economization and a closer focus on tangible profits. It is not unlikely that barring Ukraine’s accession to WTO, for example, will prove to be linked not only with a desire to procure ourselves better membership terms, but with willingness to synchronize this process with Russia. Similarly, by no means does it lift the doubts that the sought-after benefit will concern the State in its entirety and not only the “big capital” represented in the Regions Party.

It is crucial to reach clarity on what First Deputy Prime Minister Mykola Azarov exactly means by saying that Ukraine’s European choice does not interfere with integration processes under CIS and United Economic Area. The government will have to respond to Moscow’s suggestions that we should determine the depth of UEA integration and of Ukraine’s accession to the Eurasian Economic Commonwealth where Kazakhstan, Belarus, Kyrgyzstan, Tajikistan, and Uzbekistan have allied around Russia and, as Russian Prime Minister Mr. Fradkov put it, “confirm in deed that the relations between the two countries remain a priority.

After the “Orange Revolution” a rigorous hierarchy of strategic priorities has developed: EU integration and cooperation with Russia. Now when the parliament is dominated by other political forces, formal changes may not occur. Yet a drop of enthusiasm in implementing the reforms envisaged by Ukraine/European Union treaties is already becoming a reality. The government structure dissolved the Committee for European and Euroatlantic Integration chaired by Foreign Minister Boris Tarasyuk who stood for the most rapid possible rapprochement with the West. Efforts coordination for ministries responsible for implementing the plans of cooperation with EU and NATO was directly assumed by Viktor Yanukovich, and it will signal to the bureaucracy that these tasks are not that important anymore. In fact, the Prime Minister has already outlined his economized approach to Eurointegration: “not until Ukrainian economy, legislation, and living standards reach European standards, will accession to the EU become part of the agenda”. According to him, the Cabinet of Ministers intends to bring Ukraine level with the countries aspiring to accede to the EU within 10 years. It should be noted that such an approach is more realistic in terms of our country’s readiness than the energized course pursued by Viktor Yushchenko. By the way, it is perfectly fine with Brussels, which apparently is not inclined to discuss with Ukraine its membership prospects.

The most obvious concern where no consensus is reachable at the moment is accession to NATO. Its intensity seems artificial now that the very chances of accession have not been officially considered either by Kiev or by Brussels, and Ukraine still has to work hard to meet the membership criteria. However, Ukraine is expected to join the action plan on NATO membership already this November. President Yushchenko claims that Ukraine does not intend to postpone this step while the governmental coalition members believe it to contravene the political agreements reached. It is evident that the President-patronized Foreign Ministry and Defense Ministry will not be in a position to act independently, whereas the government and parliamentary majority will seek to maintain the status quo in the relations with the alliance and will not adopt major decisions. This issue was actually resolved at the 14 September 2006 Ukraine/NATO Commission meeting in Brussels. The Ukrainian delegation chairman Viktor Yanukovich used the following wording to lay out the government's position: "joining the Action Plan is a matter of time. Today the society does not support this step. ... now we are beginning a new stage in our relations with NATO. While strengthening our cooperation, we will spare no effort to convince Ukrainian people that there is no alternative to that."

It can be expected that Viktor Yanukovich's motions will dramatize the relations among political forces; the debate on the government's willingness to follow the Universal of National Unity in its policies can be expected to heighten. There is a real threat that foreign policy will fall hostage to domestic political struggle, and it will become impossible to protect national interests. Yet the situation is unique in that the country does need transformations capable of making essential changes to its geopolitical situation and role in international affairs. And fundamental here is the problem of consistency of the current policy with the strategic goal declared, and, more specifically, whether the Yanukovich government is going to facilitate the implementation of President Yushchenko's plans or is going to pave the way for their revision and how the capabilities of these actors to influence State matters will change.

The recent developments themselves necessitate certain practical steps. The present objective circumstances force the government to further specific projects such as the use of Ukrainian transport aircraft by NATO countries, to be pragmatic and care to improve the State's competitiveness in this or that way. The head of the government is doing his best to prevent any inkling of his limited capacity in dealing with Western partners. He repeatedly emphasizes that there can be no doubts in Ukrainian European choice. In his Washington Post article of early October there is a telling sentence: "President Yushchenko and I also agree that Ukraine has made a choice for Europe and will pursue closer relations with all European and Euro-Atlantic institutions." He is apparently unwilling to be treated as an antipode to the Head of State, but overall, such a sign of competition is only welcome. The following priorities in the government's international activities are outlined as energy security, WTO, and a treaty on free trade area with the European Union. And this, if the tiny Communist faction is disregarded, is a field for a multi-party foreign policy.

## **The Government of the Russian Federation Has Approved the Federal Task Program «Development of Atomic and Industrial Complex of Russia for the Period of 2007-2010 and Future Prospect till Year 2015»**

The draft of the federal task program “Development of atomic and industrial complex of Russia for the years 2007-2010 and future prospect till year 2015” was examined and approved on the 4<sup>th</sup> of October, 2006 at the session of the RF Government. The draft program was presented by the Head of the Federal Atomic Energy Agency (FAEA) Serhiy Kyriyenko.

The main objective of the Program is “realization of the accelerated development of atomic energy-industrial complex for the protection of geopolitical interests of the country and energy security of the RF due to setting in operation the nuclear power plants new model serial power units of general installed capacity not less than 2 GWt per year, products or services promotion to the world markets by Russian organizations of nuclear fuel cycle and transition to construction and maintenance of the nuclear power stations outside the RF».

The amount of the Program financing will make up 1 trillion 471,4 billion of rubles, in particular budgetary financing - – 674,8 billion of rubles.

As a result of Project measures realization such activities are planned:

- completion of the two power units with the WWER-1000 type reactor (power unit №2 of the Rostovska NPP and power unit №4 of the Kalininska NPP) with terms of setting in operation in the years 2009 and 2011 correspondingly;
- construction at the site of Biloyarska NPP of power unit №4 with the BH-800 reactor type designed for the adjustment of closed nuclear fuel cycle technology with preliminary term of setting in operation – year 2012.

Within the period of 2007–2008 the construction of the 3 new model serial power units of Novorozhizh'ska NPP-2 and Leningrad'ska NPP-2 will begin with terms of setting in operation in the years 2012 and 2013 correspondingly. Starting from the year 2009 the annual constructions of two new model serial power units with WWER-1000 type reactor the production cycle of which is 5 years.

Hence, on completion of the Program realization term the 10 new power units of general installed capacity not less than 9,8 are supposed to be set in operation at the RF NPPs; 10 more power units will be on various stages of construction by that time.

*According to the materials of the FAEA press release of October the 4<sup>th</sup>, 2006*

## **AECL has received a contract in China**

Canadian corporation «Atomic Energy of Canada Limited» (AECL) has signed a contract of value 12 million of Canadian dollars for the supply of equipment and providing of engineering and project services for the construction of dry shelter for the spent fuel (SF) from power units in the «Qinshan» NPP of the third stage in China.

The CANDU type reactors are allocated at the power units «Qinshan» -3-1» and «Qinshan»-3-2» and run on natural uranium as a fuel and heavy water as a neutron moderator with capacity of 665 megawatt each. The power units were set in operation in the years 2002–2003.

By the terms of the contract the Chinese party will be able to construct the first module of a dry shelter applying MACSTOR (Modular Air-Cooled STORage) technology during three years. 10 of such modules are stipulated to be in the shelter.

MACSTOR dry shelters are designed for the storing inside of them of SF from CANDU reactors after their prior cooling at the station cooling pond. At present time the shelters of such type are being set in operation at the sites of the «Djentylli-2» NPP (Quebec province, Canada) and «Chorna voda» NPP (Rumania).

*Source material from IranAtom.ru*

## **International center on uranium enrichment in Angarsk**

The Head of commission on creation of the international center on uranium enrichment in Angarsk city of the RF Irkutsk region, Deputy Head of Rosatom Mykola Spas'kyi during the meeting at the end of September, 2006 with the representatives of local authorities and public organizations of region announced that Rosatom had not determined the principles on the basis of which the center will be organized.

According to his words, «the center is like a... two-level structure: international level that will be regulated by the international law and according to the intergovernmental agreements with participation of the IAEA and under IAEA guarantees; the other level – is the body of the center that comprises joint enterprises». Talking about prospects as for participation of foreign partners in the work of the center he underlined that «the joint enterprise with Kazakhstan will be as a first element». He also admitted that it was “hard enough” to hold negotiations with Kazakhstan as for creation of uranic joint enterprise.

Rosatom is planning to provide those countries that are ready to make a contribution to the uranic center in Angarsk with “a real right to participate in managing production, in defining its market strategy and revenues”. But at the same time the technologies of uranium enrichment should stay under the control of Russian party. M. Spas'kyi mentioned that the initiative on creation of such center belongs to the President of the RF V.Putin.

*According the materials of the RF Ministry of nuclear energy*