International Relations

NUCLEAR SAFETY AND P-5 GLOSSARY

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ABSTRACT:
MECHANISMS FOR THE DISARMAMENT OF THE UNITED NATIONS NECESSARY TO ENSURE PEACE AND GLOBAL SECURITY ARE SEIZED: NO STUDIES HAVE BEEN COMPLETED; THERE ARE NO PLANS OF ACTION OR PROSPECTS FOR LAUNCHING NEGOTIATIONS ON THE KEY ISSUES CONCERNING NUCLEAR NON-PROLIFERATION AND STRATEGIC PERSPECTIVE ON DISARMAMENT.
THE 2010 NPT REVIEW CONFERENCE SETS 64 GOALS COMBINED IN AN ACTION PLAN FOR ALL SIGNATORIES' STATES TO THE AGREEMENT; THE 2015 CONFERENCE NOTES THAT NO SIGNIFICANT PROGRESS HAS BEEN MADE IN THEIR IMPLEMENTATION.
THE 2015 REVCON ACHIEVEMENTS ARE ASSESSED AS INSUFFICIENT; ONLY THE INITIATIVE FOCUSED ON THE HUMANITARIAN IMPACT OF NUCLEAR WEAPONS IS THE MOST IMPORTANT ACHIEVEMENT NOT COVERING THE LACK OF PROGRESS IN IMPLEMENTING THE ACTION PLAN 2010.
THE DIALOGUE IN "P-5 PROCESS" FORMAT IS NOT TRANSLATED INTO CONCRETE STEPS TOWARDS NUCLEAR DISARMAMENT, IN THE CONCRETE COMMITMENTS RELATED TO REGIONAL AND GLOBAL STABILITY REGARDING THE DEVELOPMENT OF THEIR NUCLEAR AND CONVENTIONAL WEAPONS SYSTEMS.
APPLYING THE PRINCIPLE OF TRANSPARENCY BY THE P-5 IS FAR FROM NNWS EXPECTATION, AND THE NGOS, A SITUATION UNDERLINED AND PRESSED IN REVCON 2015. IN TURN, NWS CONSIDERS THAT GREATER TRANSPARENCY WOULD JEOPARDIZE SAFETY AND PROTECTION OF NUCLEAR MATERIALS AND WARHEADS AND THE CREDIBILITY CAPACITY TO DISCOURAGE NWS.
THE FORMAT OF "P-5 PROCESS" COULD BE IMPROVED BY DEVELOPING ITS "P-5 + 2 PROCESS" BY INVITING INDIA AND PAKISTAN TO PARTICIPATE IN STRATEGIC STABILITY.

KEYWORDS: DISARMAMENT, THE ACTION PLAN 2010, P-5 PROCESS, P-5 GLOSSARY

The challenge of creating a world free of nuclear weapons (NWFW)[1] continues to be a chimera as long as political leaders are too interested in nuclear weapons and very little on disarming[2.]

Mechanisms for the disarmament of the United Nations[3] necessary to ensure peace and global security are seized: no studies have been completed; there are no plans of action or prospects

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[1] A nuclear weapons free world (NWFW).
[2] SIPRI, *SIPRI launches world nuclear forces data*, 16th June 2014, www.sipri.org, (Accessed 3 December 2015).
[3] Conference on Disarmament (CD) and the UN Disarmament Commission (UNDC).

for launching negotiations on the key issues concerning nuclear non-proliferation and strategic perspective on disarmament.

Immediately after the Cold War, the two nuclear superpowers - the USA and the Russian Federation - have shown willingness to reduce nuclear warheads through radical measures which, unfortunately, did not continue after 2000 to comply with the provisions of art. VI of the NPT regarding the reducing of the nuclear stockpile and even disarmament. The nuclear warheads stocks remain under a cloud; the role of nuclear weapons it continues to be recognized in the doctrines of major powers simultaneously with the modernization of nuclear weapons[4].

The conventional balance of power net favorable to the USA allows the USA to maintain its global military domination, reality favorable to nuclear disarmament. On the other hand, a nuclear disarmament without USA conventional disarmament measures to eliminate potential threat of military strikes could not be accepted by Russia and China[5].

The situation of other states that possesses nuclear weapons - India, Pakistan, Israel, and North Korea - remains unregulated by NPT. Also, the NNWS community carries out sustained and substantial that NWS fails to fulfill their obligations stated in NPT.

In 2008, USA signed a nuclear agreement with India, a non-signatory to the NPT, in the view of some states as a compromise to the non-proliferation policy with profound effects on regional balance.

THE DISARMAMENT AND NON-PROLIFERATION DOSSIER

The NPT[6] review conferences have adopted a series of measures towards disarmament and non-proliferation, considered by many NNWS as insufficient.

Between 2013 and 2014, there are three ad-hoc conferences on the provisions of NPT art. VI centered on the theme of the humanitarian consequences of the use of nuclear weapons, by switching from national security to human security, emphasizing NWS[7] responsibility.

Within the upward trend of the emergence of new reactors[8], China aims to build 4-6 reactors per year, such as the 25 existing in their possession, another 25 are under construction[9.]

Starting from 2015 to USA conduct in the NATO member states - Belgium, Netherlands, Germany, Italy and Turkey - around 200 nuclear weapons will substantially strengthen the nuclear capabilities of this organization generating a nuclear arms race with Russia[10.]

The 2010 NPT Review Conference sets 64 goals combined in an action plan for all signatories' states to the agreement; The 2015 Conference notes that no significant progress has been made in their implementation.

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[4] Arbatov Alexey, *The P5 Process - Prospects for Enhancement*, January 2015, www.deepcuts.org, (Accessed 3 December 2015).

[5] Primakov, Yevgeny, Moiseyev, Mikhail, Ivanov, Igor and Velikhov, Evgeny, *Start a new disarmament plan*, 22nd October 2010, www.in.rbth.com. (Accessed 3 January 2016).

[6] Vezi e.g. lucrările 2010 NPT Review Conference (RevCon).

[7] 158 countries took part in the last one, held in Vienna in December 2014.

[8] 75% of new reactors worldwide are to be built in non-OECD (Organisation for Economic Co-operation and Development) countries.

[9] *Hualong-1,* it is a third generation (Gen-III) reactor and has been developed for the global export market. Among the beneficiaries – Pakistan (two reactors *Hualong-1*), Argentina, Iran and the UK. See *UK-China Nuclear Security*, MacArthur Foundation, London, 28 July 2015.

[10] Kristensen, Hans, *General Confirms Enhanced Targeting Capabilities of B61-12 Nuclear Bomb*, 23rd January 2014, www.fas.org. (Accessed 3 January 2016).

The 2015 NPT Review Conference notes that a number of 124 have agreements with IAEA in force of which 23 agreements made after 2010 NPT[11]. Regarding NPT art. VI is requested that NWS fulfill their obligations under the NPT and conferences in 2000 and 2010, respectively "13 practical steps" and the action plan for nuclear disarmament.

They have reiterated the principles of transparency, verification and irreversibility implementation of NWS obligation accruing from NPT; there is a concern despite the reductions stipulated through unilateral and bilateral agreements there is a large number of nuclear weapons developed and in deposits contrary to Art. VI NPT that requires not their reduction but the irreversible elimination of nuclear weapons[12.] A dangerous tendency is the production of new types of nuclear weapons by the NNWS and improving the specification of existing nuclear weapons systems by NWS.

Although the principle of transparency is viewed differently by NWS, it is indispensable for reductions of the nuclear arsenals, RevCon 2000 is considered as the starting point of taking into account the principle of transparency as a major dimension of implementing the provisions of NPT art. VI transposed in the "13 practical steps"[13]. Subsequently, the NWS it is engaging to take appropriate action in accordance with the transparency principle - publishing information on their nuclear arsenals, unilateral declarations regarding nuclear production (Russia less), about the amount of plutonium it possesses (as required by IAEA INFCIRC/549).

USA and Russia make available data about the nuclear arsenal and nuclear materials according to START and New START agreements and conclude agreements relating to the purchase of enriched uranium (HEU) and plutonium management[14].

The Civil war in Ukraine imposes an increased attention on the nuclear dimension of the relations between NATO and Russia significantly escalated by the rhetoric nuclear threats, including the potentiality deployment of nuclear weapons on NATO's eastern flank simultaneously with the revision of the nuclear arms control agreements. The eventual escalation of USA-Russian nuclear balance in Central and Eastern Europe attracts the risk of nuclear incident, a situation that must be avoided through negotiations and practical measures[15]

[11] 2015 Review Conference of the Parties to the Treaty on the Nao-Proliferation, Nuclear Weapons, NPT/CONF.2015/R.3, 21 May 2015, 4.

[12] 2015 Review Conference of the Parties to the Treaty on the Nao-Proliferation, Nuclear Weapons, NPT/CONF.2015/R.3, 21 May 2015, 15.

[13] "Increased transparency by the nuclear weapon states with regard to the nuclear weapons capabilities and the implementation of agreements pursuant to Article VI."

[14] Siegel Jonas, *Expanding Nuclear Weapons State Transparency to Strengthen Nonproliferation*, CISSM Working Paper, Center for International and Security Studies at Maryland, School of Public Policy, University of Maryland, March 2015, 3.

[15] One possible option could be to review the status of – and possible new issues for – the Nuclear Risk Reduction Centers (set up in 1987) and the U.S.-Russia Strategic Stability Talks. See Second Report of the Deep Cuts Commission, *Strengthening Stability in Turbulent Times*, Hamburg, Moscow, Washington, April 2015, Institute for Peace Research and Security Policy at the University of Hamburg (IFSH), pp. 12-13, www.deepcuts.org. (Accessed 9 January 2016).

In accordance with the obligations under art. VI of the NPT,[16] incumbent NATO regarding NSNW that it could be more transparent about them and discuss with Russia about measures to increase mutual trust[17].

USA and Russia hold at least 90% of the 16,000 nuclear weapons in the world, having the primary responsibility in the efforts for global nuclear disarmament, reductions their arsenals stimulating the multilateral disarmament negotiations in the NPT format, engaging the third party NWS to similar steps. The arsenals reductions can be negotiated in a multilateral format[18].

If the principle of transparency has specific meanings for each NWS, measures for the implementation of this principle knows different ways to achieve it; the publication of some nuclear information seeks to provide data to understand better the reality of nuclear, intention and eliminate misunderstandings on a variety of levels - for states, international organisations, and civil society. On the other hand, nuclear information is made public in order to intimidate the other states.

The limited application of the transparency principle is through the presentation of intergovernmental data structures, under the IAEA agreements on nuclear safety, or the other states under the arms control agreements signed. The NPT success depends on ensuring the transparency of non-proliferation by increasing mutual trust by respecting the NPT members obligation through - statements, monitoring, allowing inspections at nuclear facilities certifying that does not develop nuclear weapons - a significant role being played by relations that should be drawn by NNWS in accordance with the agreements concluded with IAEA on nuclear safety[19.]

The 2015 RevCon achievements are assessed as insufficient; only the initiative focused on the humanitarian impact of nuclear weapons[20] is the most important achievement not covering the lack of progress in implementing the Action Plan 2010.

P-5 FORMAT

In the period 1996-2002, IAEA together with USA and Russia have launched the "trilateral initiative" in order to establish a verification system under the IAEA aegis of nuclear warheads and their components, according to art. VI NPT concluded with a "Model Verification Agreement"[21] taking into account to respect of the national security sensitive information on the

[16] Article VI of the NPT commits all States Parties, including the five officially recognized nuclear weapons possessors, "to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control."

[17] Non-strategic nuclear weapons – NSNW. NATO should complete formulation by 2016 of its overdue proposal for achieving non-strategic nuclear weapons transparency and accountability and invite Russia to join the United States in discussions on non-strategic nuclear weapons confidence-building measures, which is part of their NPT Article VI obligations. See Second Report of the Deep Cuts Commission, *Strengthening Stability in Turbulent Times*, Hamburg, Moscow, Washington, April 2015, Institute for Peace Research and Security Policy at the University of Hamburg (IFSH), pp. 12-13, www.deepcuts.org. (Accessed 11 January 2016).

[18] In 2013, President Obama proposed negotiated cuts with Russia of deployed strategic nuclear weapons by up to one-third below the limits in the New START Treaty.

[19] Siegel Jonas, *Expanding Nuclear Weapons State Transparency to Strengthen Nonproliferation*, CISSM Working Paper, Center for International and Security Studies at Maryland, School of Public Policy, University of Maryland, March 2015.

[20] "The Conference notes the growing interest during the 2010-2015 review cycle on, non-nuclear-weapon States parties in the humanitarian impact of nuclear weapons," Oslo (March 2013), Nayarit (February 2014) and Vienna (December 2014).

[21] The Model Verification Agreement.

nuclear dossier. The model agreement is available to any NWS to start negotiations with IAEA in order to establish an agency to monitor information related to nuclear material.

In 2001, Russia proposed "to institute and commence a permanently operating consultation process on the problems of strategic stability within the Five"[22] due to concerns related to a number of unfavorable developments, the proposal being perceived as coming from Soviet times especially that the post-Soviet transition enhances the perception the USA is the only global leader[23].

In 2008, the UK Defense Secretary[24] highlights the interest in the development of verification mechanisms transparent and irreversible in accordance with the NPT and in line with the France interests to reduce their nuclear arsenals, too small to compare with those of the nuclear superpowers, but also for future upgrades of the nuclear weapons infrastructure[25] provided that the USA will carry an impressive program to modernise the nuclear arsenal[26].

In 2009, the UK proposed the "P-5 process". In the "P-5 process" it is discussed response issues in "case of nuclear accident"[27]. China's interest being for "preventing nuclear accident" as well. Based on the obligations of states to provide security information and the quantity of nuclear weapons and materials their annex provided for by Security Council Resolution 1540[28], in the attention of P-5 it imposes the necessity of a standard format for reporting the compliance of these obligations by setting up working group for nuclear safety and including in the glossary of terms the terminology related to the security of nuclear materials[29].

In 2014, P-5 agreed with the common reporting framework under France's aegis. NWS meeting seeks to coordinate positions and actions of these states in regards to disarmament; although constituted for some time the results are disappointing. The only achievement considered is the common reporting framework regarding military doctrines changes, the stock of nuclear material

[22] "to institute and commence a permanently operating consultation process on the problems of strategic stability within the Five." See Yakovenko Alexander, *Russian P5 Initiative*, July-August 2001, www.acronym.org.uk. (Accessed 13 January 2016).

[23] See Rumer Eugene B., *Russian Foreign Policy Beyond Putin*, 2007, London: Routledge; Trenin, Dmitri, "Russian Perspective on the Global Elimination of Nuclear Weapons" in Blechman Barry (ed.), *Russia and the United States*, 2009, Washington: Henry L. Stimson Center, 14-17.

[24] UK Defense Secretary Des Browne announced that the UK was "willing to host a technical conference of P5 nuclear laboratories on the verification of nuclear disarmament before the next NPT Review Conference in 2010". See Browne Des, *Speech by Des Browne to the Conference on Nuclear Disarmament*, 5th February 2008, www2.labour.org.uk. (Accessed 13 January 2016).

[25] For the purpose of suspicion that the reduction actually pursues modernization, see, Acheson, Ray (ed.), *Assuring Destruction Forever: Nuclear Weapon Modernization Around the World*, 2012, www.reachingcriticalwill.org. (Accessed 13 January 2016).; Burt Peter, Anglo-French nuclear co-operation and the 'Teutates' programme, (Reading: Nuclear Information Service), 2010; Norton-Taylor Richard, *Exclusive: UK to step up collaboration with US over nuclear warheads*, 12th June 2014, www.theguardian.com. (Accessed 13 January 2016).

[26] Wolfstahl J.B, Lewis, J. & Quint M., *The One Trillion Dollar Triad - US Strategic Nuclear Modernization over the Next Thirty Years*, 2014, Monterey: James Martin Center for Nonproliferation Studies. Obama's 2009 Prague speech, in which he stated "America's commitment to seek the peace and security of a world without nuclear weapons" is evaporated… Obama, Barack, Remarks by President Barack Obama, 5th April 2009, www.whitehouse.gov. (Accessed 15 January 2016). See Street Tim, *Analysis: The P5 Process If we want a nuclear weapons free world then we need to change the rules of the game*, British American Security Information Council, February 2015, 3.

[27] P-5 meetings after 2010 NPT Revcon, Paris (2011), Washington I (2012), Geneva (2013), Beijing (2014) and London (2015). The 2016 meeting takes place in Paris.

[28] UNSCR 1540.

[29] Committee on the U.S. – Chinese Glossary of Nuclear Security Terms, "*English – Chinese, Chinese – English, Nuclear Security Glossary*," Washington, DC and Beijing: National Academies Press and Atomic Energy Press, 2008.

disarmament. But this common reporting framework it is not generalized due to China's position which expressed some reservations about the nuclear arsenal values[30].

In London in February 2015, the Joint Declaration of the sixth "P5 Process" Conference stands for strengthening the NPT[31]. The seven conference cycle (the seventh shall be held in France) in order to improve dialogue, transparency and a common perspective for strengthening the NPT. However, the doctrinal reality is less favorable in increasing confidence and transparency claimed by the conference[32].

The dialogue in "P-5 Process" format is not translated into concrete steps towards nuclear disarmament, in the concrete commitments related to regional and global stability regarding the development of their nuclear and conventional weapons systems[33].

Britain, France and China made a unilateral commitment not to increase its own nuclear arsenal only if USA and Russia continue with the reductions of nuclear weapons. If the case of these nuclear powers a greater transparency on their nuclear arsenals, issuing official statements to increase the number of nuclear weapons in the endowment, the adoption of bilateral measures to increase the mutual trust of the kind provided for USA and Russia in the New START agreement.

Applying the principle of transparency by the P-5 is far from NNWS expectation, and the NGOs, a situation underlined and pressed in RevCon 2015[34]. In turn, NWS considers that greater transparency would jeopardize safety and protection of nuclear materials and warheads and the credibility capacity to discourage NWS.

Nuclear transparency means the presentation of data which previously was not available regarding the production and use of nuclear materials and technology, as a measure to increase trust[35], but with different perceptions depending on the position of each state. Transparency can be a way for some state to obtain advantages at the expense of other states; some states support a greater nuclear transparency; others support it only to highlight the hesitation of other countries in this regard.

It is proposed that NWS to make statements on the number of nuclear weapons, independently or in/with the support of the "P-5 Process" format in order to increase nuclear transparency, supported by verification procedures on all bearings - production, facilities, nuclear

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[30] Alcaro Riccardo, *Reviewing the Non-Proliferation and Disarmament Regimes*, IAI Working Papers 15-16, May 2015, Istituto Affari Internazionali (IAI).

[31] a "consensual, balanced outcome to the 2015 review Conference, which would do much to enhance the P5's continuing efforts to strengthen the NPT," "Joint Statement from the Nuclear-Weapon States at the London P5 Conference" of February 6, 2015. See Fitzgerald David and David Ryan, *2014 Obama, US Foreign Policy and the Dilemmas of Intervention*, London: Palgrave Macmillan.

[32] 2012 "Deterrence and Defense Policy Review" stated that "Nuclear weapons are a core component of NATO's overall capabilities for deterrence and defense along-side conventional and missile defense." Russia's military doctrine 2015, reiterated its reliance on nuclear weapons. China has long stated that it would not be the first to use nuclear weapons, but its own military doctrine remains opaque. Both Russia and China are strongly opposed to any U.S. moves to deploy ballistic missile defenses in Eastern Europe and Asia. See Grinius Marius, *The Nuclear Non-Proliferation Regime: Will It Survive?* The Canadian Defence & Foreign Affairs Institute April, 2015.

[33] Among other commitments, that Action Plan called on the five states to "accelerate concrete progress on the steps leading to nuclear disarmament." *2010 NPT Review Conference Action Plan*.

[34] "Increased Transparency in the Disarmament Process," a working paper submitted by the members of the Non-Proliferation and Disarmament Initiative to the 2014 Preparatory Committee Meeting for the 2015 NPT Review Conference, March 19, 2014, NPT/CONF.2015/PC.III/WP.10.

[35] For "greater predictability with regard to the intentions and capabilities of states, thus facilitating mutual understanding, easing tensions, and reducing misperceptions." Nicholas Zarimpas (ed.), *Transparency in Nuclear Warheads and Materials: The Political and Technical Dimensions* (Oxford, UK: Oxford University Press, 2003), 7.

warheads, etc. - so that it becomes irreversible. Such a process not to be deprived of a verification system, including monitoring techniques.

In the disarmament field, P-5 focuses on how the Nuclear Safety supports this process, being necessary procedures to verify the process of eliminating nuclear material for reducing the risk of theft or sabotage.[36]

P-5 GLOSSARY

In 2011, the five states possessive of nuclear weapons (P -5) began with the obligations of the NPT[37] setting up a "Working Group"[38] to achieve a glossary of key nuclear terms, to increase mutual trust and facilitate discussions with NPT states non-possessive of nuclear weapons. Initiative based on "step-by-step" treatment based on the consensus that is materialised in 227 terms and organized in six chapters[39]. "P-5 Glossary" will be reviewed and improved, including NNWS and the civil society participation[40].

The section devoted to non-proliferation of the P-5 glossary is organized in four groups of definitions: (1) legal instruments and other documents relating to non-proliferation and IAEA safeguards; (2) IAEA Safeguards; (3) the evaluation standards of nuclear material; (4) Verification, monitoring and inspection[41].

Legal instruments and other documents relating to non-proliferation and safeguards IAEA presents definitions on which was agreed following negotiations so[42],

Additional Protocol (according to the Model Additional Protocol INFCIRC 540) a security agreement is concluded between state/group of states with the IAEA; when safety agreement is comprehensive together with Additional Protocol, it covers all INFCIRC provisions. If a security agreement is concluded voluntarily (INFCIRC - 66) then the Additional Protocol contains only clauses approved by the state concerned[43].

The Comprehensive Safeguards Agreement (CSA)[44] applies to all declared nuclear materials and activities or ought to be declared by a state. Categories: CSA concluded under the art. III.1

[36] Roth Nickolas, *International Cooperation to Secure Military Nuclear Materials*, The 8th INMM/ESARDA Joint Workshop, October 4-7, 2015.

[37] Nuclear Non-Proliferation Treaty (NPT), Action 5 "Further enhance transparency and increase mutual confidence" called for in *the Final Document of the 2010 NPT Review Conference*.

[38] Meeting - Beijing on 27-28 September 2012, 26-27 September 2013 and 10-11 September 2014. See P5 Working Group on the Glossary of Key Nuclear Terms, *P5 Glossary of Key Nuclear Terms*, Beijing: China Atomic Energy Press, April 2015, http://www.pircenter.org/media/content/files/13/14313989580.pdf. (Accessed 17 January 2016).

[39] Nuclear Arms Control and Disarmament, Nuclear Testing and Monitoring, Production of Nuclear Material, Nuclear Non-proliferation, Nuclear Energy, and Nuclear Safety and Security.

[40] Statement by the People's Republic of China, France, the Russian Federation, the United Kingdom of Great Britain and Northern Ireland, and the United States of America to the 2015 Treaty on the Non-Proliferation of Nuclear Weapons Review Conference.

[41] Legal Instruments and Other Documents Related to Nuclear Non-Proliferation and IAEA Safeguards; IAEA Safeguards; Nuclear Material Accounting; Verification, Monitoring and Inspection.

[42] *P5 Glossary of Key Nuclear Terms*, Legal Instruments and Other Documents Related to Nuclear Non-Proliferation and IAEA Safeguards, 52-80.

[43] *P5 Glossary of Key Nuclear Terms*, Beijing: China Atomic Energy Press, April 2015, http://www.pircenter.org/media/content/files/13/14313989580.pdf., p. 52. (Accessed 20 January 2016).

[44] Comprehensive (full scope) safeguards agreement (CSA). *P5 Glossary of Key Nuclear Terms*, 54-55.

NPT[45], CSA concluded with a state member of the Tlatelolco Treaty[46] or a treaty of the nuclear weapons free zone[47], CSA concluded between IAEA and Albania[48].

IAEA[49] safeguards system represents the system of measures according to Art. III.A.5 and art. XII of the Statute of the IAEA was taken by agreement of the State concerned and the IAEA.

The nuclear supplier group guidelines[50] it includes export policies and practices, the peaceful transfer of nuclear material to NNWS organized in two parts: the first related to "trigger list" and a second part related to material of dual use[51].

The revised supplementary agreement related to safeguards[52] may be concluded under an existing security agreement to request technical assistance through or from IAEA for sensitive technologies provided in Annex of INFCIRC -267.

The safeguards agreement[53] to apply the safety measures established by a State with IAEA by participation, in some cases the regional or bilateral inspectorates (EURATOM, ABACC) due to certain requirements arising or at the request of the State regarding the guarantees that it can provide to another state.

The statute of the International Atomic Energy Agency (IAEA)[54] of which the glossary highlights the importance of technical assistance - art. II;[55] establish safety management measures on verification agreements - art. III.A.5;[56] rights and responsibilities for the implementation and respect of nuclear safety standards - art.XII[57].

Subsidiary arrangements are made based on INFCIRC 153 regarding technical and administrative procedures necessary to implement the security agreements, being structured in a general part and attachment for each nuclear facility[58].

The protocol of suspension of a security agreement[59] through which the agreed measures are stopped.

[45] The IAEAs right and obligation to ensure that safe-guards are applied "on all source or special fissionable material in all peace full nuclear activities with in the territory of the State, under its jurisdiction, or carried out under its control anywhere..." (INFCIRC/153, para. 2)

[46] Tlatelolco Treaty.

[47] The nuclear-weapon-free-zone (NWFZ) treat.

[48] Signed by Albania, IAEA, Argentina and ABACC.

[49] IAEA safeguards system. *P5 Glossary of Key Nuclear Terms*, 58.

[50] Nuclear Suppliers Group Guidelines. IAEA safeguards system. *P5 Glossary of Key Nuclear Terms*, 59.

[51] See INFCIRC254, Parts 1 and 2 and INFCIRC-322.

[52] Revised supplementary agreement relevant to safeguards. IAEA safeguards system. *P5 Glossary of Key Nuclear Terms*, 64.

[53] Safeguards agreement. *P5 Glossary of Key Nuclear Terms*, 66.

[54] Statute of the International Atomic Energy Agency - IAEA.

[55] "Seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world. It shall ensure, so far as it is able, that assistance provided by it or at its request or under its supervision or control is not used in such away as to further any military purpose."

[56] "Establish and administer safeguards designed to ensure that special fissionable and other materials, services, equipment, facilities, and information made available by the Agency or at its request or under its supervision or control are not used in such away as to further any military purse; and to apply safeguards, at the request of the parties, to any bilateral or multilateral arrangement, or at the request of a State, to any of that State's activities in the field of atomic energy".

[57] Safeguards agreement. *P5 Glossary of Key Nuclear Terms*, 67-68.

[58] Safeguards agreement. *P5 Glossary of Key Nuclear Terms*, 70.

[59] Suspension Protocol. Safeguards agreement. *P5 Glossary of Key Nuclear Terms*, 73.

The agreement offered voluntary[60] proposed by NWS inspired by certain provisions of INFCIRC 153 under the NPT, which could cause them disadvantages. All 5 NWS have concluded such agreements.

The voluntary reporting scheme[61] inspired by Annex II of INFCIRC 540 is done through the exchange of letters with the IAEA.

The Committee Guidelines for Exports Zangger[62] established under Art. III.2 NPT for the export of nuclear material for peaceful purposes to NNWS. Although is not an IAEA structure the guide provision are contained in INFCIRC 209.

Regarding safety regulations, it contains a number of important definitions from which guarantees are particularly important[63].

The assurance of the absence of undeclared nuclear material and activities[64] that it supported by a state signatory to the Comprehensive Safeguards Agreement (CSA) and an additional protocol, both in force, starting point for evaluation and verification carry out by IAEA.

The evaluation standards of nuclear material concerning ways of establishing the material subject to evaluation; supervision measures, international evaluation standards; changes in nuclear inventory; establishment goods; material situation on locations; periodic situations[65].

The verification procedures, monitoring and inspection refers to the measurement of radiation, inspections, inspection of the inspection form; environmental analysis; verification of certain goods; passive measurement; radiation detection equipment; random inspections; remote checks; significant quantity; simultaneous inspections; special inspections; environmental sampling; unannounced inspections; ways of identifying[66].

From the point of view of international law, the terms contained therein "P-5 Glossary" have no legal meaning, cannot be opposed by other terms in other documents of international law or domestic law[67]. Furthermore, the terms are not relevant to the possible use of these terms and meanings of future international law documents or other international instruments.

[60] Voluntary offer agreement – VOA. *P5 Glossary of Key Nuclear Terms*, 74.

[61] Voluntary reporting scheme on nuclear material and specified equipment and non-nuclear material. *P5 Glossary of Key Nuclear Terms*, 76.

[62] Zangger Committee Export Guidelines. *P5 Glossary of Key Nuclear Terms*, 78.

[63] In the section regarding safety regulation are defined: Assurance of non-diversion of nuclear material; Coverage of IAEA safeguards; de-exemption; essential equipment list (EEL); exemption; integrated safeguards; location outside facilities (LOF); Safeguards Criteria; starting point of IAEA safeguards; suspension of IAEA safeguards; termination of IAEA safeguards. *P5 Glossary of Key Nuclear Terms*, 80-101.

[64] Assurance of the absence of undeclared nuclear material and activities. *P5 Glossary of Key Nuclear Terms*, 80.

[65] Account balance, book inventory of a material balance area; containment/surveillance measures (C/S measures), international standards of accountancy; inventory change of nuclear material; inventory of nuclear material; item counting; material balance area (MBA); material balance period (MBP); material unaccounted for (MUF); nuclear material accounting; physical inventory verification (PIV); shipper/receiver difference (SRD); state system of accounting for and control of nuclear material (SSAC). *P5 Glossary of Key Nuclear Terms*, 101-131.

[66] Active measurement; ad hoc inspection; continuous inspection; design information verification (DIV); environmental sampling (ES); exhibition; passive measurement; radiation detection equipment (RDE); random inspection; remote monitoring; significant quantity (SQ); simultaneous inspections; special inspection; swipe sampling; unannounced inspection; unique identifier. *P5 Glossary of Key Nuclear Terms*, 133-155.

[67] See *Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities* (Vienna, Austria: International Atomic Energy Agency, 2011), http://www-pub.iaea.org/MTCD/publications /PDF/Pub1481_web.pdf. (Accessed 25 January 2016).

Initiate procedures for establishing standards of nuclear safety and security for the NWS could be valuable activate for "P-5 Process"[68].

The format of "P-5 process" could be improved by developing its "P-5 + 2 process" by inviting India and Pakistan to participate in strategic stability[69].

The minor progression of the "P-5 process" can be considered as the expression of the unwillingness of big powers to change the current state of affairs including maintaining the threat of using force as a transformative factor in international relations[70].

[68] Exchange of best practices on emergency response, including discussion of the kind of international cooperation that this could require (e.g., in the event of an accidental detonation). Second Report of the Deep Cuts Commission, *Strengthening Stability in Turbulent Times*, Hamburg, Moscow, Washington, Aprilie 2015, Institute for Peace Research and Security Policy at the University of Hamburg (IFSH), www.deepcuts.org. (Accessed 3 January 2016).

[69] "To give new momentum to a Fissile Material Cut-Off Treaty (FMCT)." Second Report of the Deep Cuts Commission, *Strengthening Stability in Turbulent Times*, Hamburg, Moscow, Washington, Aprilie 2015, Institute for Peace Research and Security Policy at the University of Hamburg (IFSH), www.deepcuts.org. (Accessed 3 January 2016).

[70] Street Tim, *Analysis: The P5 Process If we want a nuclear weapons free world then we need to change the rules of the game*, British American Security Information Council, February 2015.

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