NMUN•NY 2015

CONFERENCE B

National Model United Nations • New York

29 March - 2 April 2015 (Conf. B)

Documentation of the Work of the Non-Proliferation Treaty Review Conference (NPT RevCon)

Non-Proliferation Treaty Review Conference (NPT RevCon)

Committee Staff

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Agenda

I. Advancing Technical Cooperation in the Peaceful Use of Nuclear Energy

II. Article X and Measures to Address Withdrawal from the NPT

III. Denuclearization of the Korean Peninsula

Report Segments adopted by the Committee

Code	Topic	Vote
NPT/1/1	Enhancing the access to nuclear materials for peaceful purposes through the Nuclear Bank Network	109 votes in favor, 3 votes against, 15 abstentions
NPT/1/2	Peaceful uses initiative for multinational development of new generation nuclear reactors	Adopted without a vote
NPT/1/3	Improving international cooperation on decreasing nuclear waste and its hazards	100 votes in favor, 12 votes against, 25 abstentions
NPT/1/4	Technical cooperation for the safety and security of nuclear materials	110 votes in favor, 3 votes against, 25 abstentions
NPT/1/5	The peaceful uses of nuclear energy: fostering sustainable development	Adopted without a vote
NPT/1/6	Advancing information sharing, education and multilateral cooperation to facilitate technical development	115 votes in favor, 3 votes against, 10 abstentions
NPT/1/7	Crisis management: prevention and response	120 votes in favor, 2 votes against, 15 abstentions

Summary Report

The Non-Proliferation Treaty Review Conference (NPT RevCon) held its annual session to consider the following agenda items:

I. Advancing Technical Cooperation in the Peaceful Use of Nuclear Energy
II. Article X and Measures to Address Withdrawal from the NPT
III. Denuclearization of the Korean Peninsula

The session was attended by representatives of 151 States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons. On Sunday, the committee adopted the agenda of I, III, II, beginning the consideration of the topic “Advancing Technical Cooperation in the Peaceful Use of Nuclear Energy.”

By Tuesday, the Dais received a total of 16 proposals addressing a wide range of sub-topics, including advancing technical cooperation between developing and developed States Parties, promoting the implementation of International Atomic Energy Agency’s safeguards and fostering research into Generation IV nuclear reactors. In addition, several delegations discussed measures to enhance the security of nuclear waste transport and disposal. Reflecting an atmosphere of mutual cooperation, States Parties unremittingly worked on identifying complementary themes between the different working groups, which resulted in the merger of several working papers by Tuesday evening.

On Wednesday, seven draft report segments had been approved by the Dais, two of which had amendments. The committee adopted seven report segments, five by a two-thirds majority vote and two report segments which received unanimous support. The report segments represented a wide range of issues, including the facilitation of States Parties’ access to nuclear energy, as well as monitoring the sharing of nuclear technologies between developed and developing countries. The diligent work of the NPT RevCon highlighted the various aspects of technical cooperation in the peaceful uses of nuclear energy and identified a range of innovative forms to foster international collaboration in this field.

Code: NPT/R/1
Committee: Review Conference of the Parties to the Treaty on the Nonproliferation of Nuclear Weapons
Topic: Advancing Technical Cooperation in the Peaceful Use of Nuclear Energy

I. Introduction

A. Enhancing the access to nuclear materials for peaceful purposes through the Nuclear Bank Network

1. The 69th session of the United Nations (UN) General Assembly (GA) adopted resolution A/RES/69/225 (2014) which stressed the need to promote new and renewable sources of energy, including nuclear energy. The 2014 Climate Summit also finalized a new agreement under the UN Framework Convention on Climate Change (UNFCCC) which recognized the importance of reducing carbon emissions and supporting scientific cooperation on alternative energy. Nuclear energy is a plausible solution to this issue because it is not only greenhouse neutral but also more abundant and cost efficient than other forms of energy. In France, for instance, 75 percent of the electricity production is generated by nuclear energy. Accordingly, the amount of France's carbon dioxide emissions is almost 1/15 to that of the United States with a fifth of the population, and is one of the lowest among the Member States of the Organization for Economic Co-operation and Development (OECD). Nuclear energy can also bring various socioeconomic benefits to other innumerable fields owing to nuclear research, including industry, crime detection, pest control and animal breeding. For instance, nuclear technology in conjunction with related bio-technologies can be used to study nutrient levels within animals, onset of sexual maturity, and the diagnosis of potentially fatal illnesses. With this information, scientists can improve livestock breeding conditions and produce sustainable increases in livestock birthrates.

2. Unfortunately, there is a major obstacle to reaping these benefits of nuclear energy: the imbalance of nuclear technology and resources between states. Not all States Parties currently have access to nuclear technology or the resources required to develop it. According to UN-Energy, approximately 30 percent of people in developing states do not have access to electricity and three billion people around the world are relying on solid fuel for cooking. Moreover, according to International Atomic Energy Agency (IAEA) statistics, only 31 states are officially registered as having commercial nuclear reactors.

3. Many international agreements and resolutions reaffirm this right to research, produce, and use nuclear energy for peaceful purposes. Article IV of the Treaty on Non-Proliferation of Nuclear Weapons (NPT) states that "nothing in this treaty shall be interpreted as affecting the inalienable right of all States Parties to develop research, production and use of nuclear energy for peaceful purposes." Security Council resolution 1887 (2009) also noted that removing barriers to access nuclear technologies and engaging in greater cooperation to support peaceful nuclear development is crucial to the socioeconomic development of Member States. Article IV of the NPT is especially important as it also calls upon all parties to the treaty to facilitate the "fullest possible exchange of equipment, materials and scientific and technological information" on peaceful uses of nuclear energy.

4. Several approaches have been taken to address this issue. One is the IAEA Technical Cooperation (TC) Programme. The TC Programme is the main mechanism through which the IAEA delivers services to its Member States to help them build, strengthen and maintain capacities in the safe and peaceful use of nuclear technology. The strategic goal of the TC Programme is to promote tangible socioeconomic impact in IAEA Member States by contributing in a cost-effective way to the achievement of the major sustainable priorities of each State. All Member States are eligible for support although TC Programme activities usually focus on the needs and priorities of less developed countries.

5. The IAEA Country Programme Framework (CPF) identifies points of interest and priority development needs for IAEA-supported technical cooperation activities. A CPF includes national development needs and analysis, plans to incorporate lessons learned, and takes into account each state’s UN Development Assistance Framework.

6. A further element is the IAEA Global Nuclear Safety and Security Network (GNSSN) which was initially developed in 2007 by the IAEA and the Group of Eight (G8) Nuclear and Security Group. The GNSSN is a key element of the Global Nuclear Safety and Security Framework (GNSSF) that focuses on sharing knowledge and services on nuclear safety and security. The GNSSN was established to promote and enhance the nuclear safety and security framework by coordinating activities of global and regional safety and security networks.

7. An additional group that deals with the safety of nuclear materials to and from supplier states with a focus on low enriched uranium (LEU) is the Nuclear Suppliers Group (NSG). It is a group of nuclear supplier states that strives to contribute to the non-proliferation of nuclear weapons through the implementation of NSG Guidelines for nuclear exports and nuclear-related exports. The NSG Guidelines are consistent with various international binding agreements on non-proliferation of nuclear weapons including the NPT and the South Pacific Nuclear-Weapons-Free Zone Treaty.

8. The IAEA's main instruments to limit nuclear proliferation are the Safeguards Agreements. They are control mechanisms coordinated by the IAEA to verify that states are adhering to their international commitments not to develop nuclear weapons. Their functions include confidence-building, an early warning mechanism, and the trigger that instigates the international community to respond to violations. In addition to this essential element of the non-proliferation arsenal, the Treaty on Non-Proliferation of Nuclear Weapons Review Conference (NPT RevCon) would like to underline the work done by both the NPT and the Revised Supplementary Agreement Concerning the Provision of Technical Assistance (RSA) by the IAEA.

9. International nuclear fuel banks have been presented as a potential solution for promoting equal access to nuclear materials for peaceful purposes. The funding required for setting up the international nuclear fuel banks is in the final stage owing to the financial support of the Nuclear Threat Initiative (NTI), which pledged 50 million USD in 2006 to help create a low-enriched uranium (LEU) stockpile, and more than 100 million USD in contributions from the United States of America, the European Union, the United Arab Emirates, the Kingdom of Norway, and the State of Kuwait. The NPT RevCon would like to highlight the fact that if more Member States have access to nuclear power, the market for nuclear fuel would be enlarged which would be beneficial to supplier states.

10. Furthermore, the UN Institute for Disarmament Research (UNIDIR) recommended the establishment of international nuclear fuel banks as a measure that would contribute to the multilateralization of the nuclear fuel cycle in the report named "Multilateralization of the Nuclear Fuel Cycle: Assessing the Existing Proposals". UNIDIR is an independent, voluntarily funded, autonomous institute within the UN charged with generating ideas and promoting disarmament.

B. Peaceful Uses Initiative for Multinational Development of New Generation Nuclear Reactors

11. The NPT RevCon recognizes the right of Member States to develop nuclear energy for peaceful purposes as provided for in Article IV of the NPT, as well as the right of States Parties to define the proportion of nuclear energy in their national energy mix.

12. The NPT RevCon fully supports the objectives of Millennium Development Goals (MDGs) and the forthcoming Sustainable Development Goals (SDGs), which recognize the need for the continued development of sustainable energy sources for the benefit of the international community, and identifies nuclear energy as a potential alternative energy source.

13. The development of renewable energy sources, which is any source of energy that does not depend on an exhaustible natural resource, is one of the greatest challenges for the international community in the post-2015 development framework.

14. The NPT RevCon is deeply concerned by safety and security of nuclear power plants, especially after the disaster at Fukushima Daiichi nuclear power plant in Japan in April 2011 and other similar accidents with catastrophic consequences.

15. The IAEA Convention on Nuclear Safety (1994) addresses the implementation of safety standards in nuclear power plants in order to ensure international security. Simultaneously, General Assembly resolution A/RES/32/50 (1977) and Security Council resolution 1747 (2007) highlight the importance of international cooperation to ensure that peaceful nuclear technological development adheres to the guidelines and standards set by the IAEA.

16. The TC Programme is the primary structure through which the IAEA supports States Parties in nuclear research, construction of facilities, and dissemination of nuclear technology and resources.

17. Furthermore, the TC Programme strongly focuses on increasing socio-economic opportunities for developing states by providing expertise, technology, and information for projects in the field of nuclear energy.

18. Currently, the TC Programme is funded through direct voluntary contributions from States Parties and from payments of National Participation costs for information and technology received from the program.

19. The recent Peaceful Uses Initiative (PUI) has created a proactive environment for the TC Programme to explore new opportunities for funding underdeveloped nuclear technology oriented projects. The PUI raises "extrabudgetary contributions" for "thematic packages" in accordance with the IAEA Medium Term Strategy Plan for 2012-2017 that include: the facilitation of access to nuclear power; the promotion of nuclear science, technology, and applications; the improvement of nuclear safety and security; the provision of effective technical cooperation; the efficacy in strengthening the Agency's safeguards and other verification activities; and the provision of efficient, innovative management and strategic planning. The updated IAEA Nuclear Security Plan for 2014-2017, funded through voluntary contributions, sets out techniques to aid in the achievement of nuclear security with a particular focus on the contributions of education and coordinated research and the need for continued and expanded efforts in these fields.

20. Specific examples of potential "thematic packages" include, but are not limited to, the construction of multi-national power plants (MPP's) and new generation reactors including generation IV reactors and nuclear fusion. All future specific implementations of "thematic packages" should follow the model established by the reactor program.

21. The growth of the IAEA's TC Programme and its capability to provide critical information and technology research have been severely hampered by a shortage of funding. This lack of funding was highlighted by a 2014 report by the Stimson Global Security Research Center as one of the two largest challenges facing the IAEA and its programs.

    a. The 2011-PUI-NE-23-NFCMS (Rev. 23 Nov. 2012) report shows the need for increased funding in the development of sustainable uranium mining, which must continue if nuclear technology is to be advanced. In this example, even mines in developed states, such as Australia, faced increased restraints on local funding. Sustainable processing operations can help limit pollution, benefitting all States Parties.

    b. In 2014, IAEA Director General Yukiya Amano, in an address to a news conference, highlighted the shortage of resources within the IAEA as responsible for hampered efforts to implement safety and security measures for States Parties.

    c. In recent years, projects funded by the PUI have contributed to enhancing living conditions and health in developing and developed states. By increasing the budget for the PUI more of these projects can be launched, increasing the capability of preventing fatal diseases and, by this, reducing the impact on society and economy (e.g. the early diagnosis of Ebola Virus Disease as already proposed under TC PROJECT RAF/0/042).

22. The current concern of developed states, such as the states of the European Union, is to provide further funding for technological advancements for global clean energy and the safe use of nuclear energy. The financial and informational capacities of developed nations places these countries in the critical role of leading international efforts to advance nuclear power. Increased funding for the TC Programme also benefits developed states by

increasing the understanding of nuclear technology, leading to not only increased potential peaceful uses for states, but also a heightened ability to create and enforce global safety and security standards through the IAEA and its programs.

23. The research activities of some of the States Parties in the field of new generation reactors are highly commendable, in particular Generation IV Nuclear Reactors using new technologies allowing for a safer mode of operation of nuclear plants and a lower risk of accidents. Ascribed in the previous paragraphs, researching safer and more efficient ways of producing nuclear energy. This is one of the main focuses of the PUI.

24. The Generation IV International Forum (GIF) Charter was extended indefinitely in 2014, which renders its goal of providing environmental sustainability and cost-efficient electricity more realizable.

25. Generation IV Nuclear Reactors are reactors that are currently being researched. The reactor types that are considered in the development are gas-cooled fast reactors, lead-cooled fast reactors, molten salt reactors, sodium cooled reactors, supercritical water-cooled reactors, and the very high-temperature gas reactors. These reactors provide increased sustainability, competitive economics, high level of safety, increased proliferation resistance, and the ability to cogenerate high-grade heat for use in industrial processes. Apart from being more innovative than Generation II and III reactors that are widely used today, Generation IV Nuclear Reactors are cleaner, safer, and more cost-effective. The Generation IV reactors are sustainable and significantly more secure.

26. The NPT RevCon recognizes nuclear fusion as a potentially significant source of energy in the future since it can constitute a self-sustaining, renewable, clean and safe power generating mechanism. Nuclear fusion releases energy by fusing isotopes of hydrogen, deuterium and tritium, which is converted subsequently via a conventional steam cycle into electricity. Deuterium and tritium replace uranium. The by-products, which include helium-4 and water, help to remove the issue of radioactive waste disposal and to reduce the risk of proliferation of nuclear weapons.

27. The NPT RevCon praises the existing programs involved in nuclear fusion research such as the International Thermonuclear Experimental Reactor (ITER) in Caradache, France sponsored by the European Union, China, India, Japan, South Korea, Russia and the United States, the National Ignition Facility in Livermore, US, and Wendelstein 7-X in Max-Planck-Institute, Germany.

28. It is important to fully understand the definitions of low-enriched uranium (LEU) and highly enriched uranium (HEU), as well as their role in the production and development of nuclear energy. Firstly, enriched uranium is a type of uranium in which the percent composition of uranium-235 has been increased through the process of isotope separation. LEU has a lower than 20 percent concentration of 235U and can only be used for peaceful purposes. The NPT RevCon recognizes that this concentration is not enough to create a nuclear weapon. On the other side, HEU has a 20 percent or higher concentration of 235U.

29. Furthermore, all States Parties to the treaty can profit from socio-economic benefits as a result of cost-efficient, clean energy provided through nuclear advancement. These benefits enable both developed and less-developed nations to continue contributions to the TC Programme and PUI for future development, research, and implementation.

30. As with any issue concerning funding and technological information regarding nuclear energy, strict oversight of funding use and technology use is necessary to prevent abuse of knowledge and promote the further peaceful use of nuclear energy.

31. The development of new generation reactors requires additional funding. The future and current projects such as ITER, or MPPs are examples of such projects.

C. Improving International Cooperation on Decreasing Nuclear Waste and its Hazards

32. In 1980, the IAEA sponsored the International Nuclear Fuel Cycle Evaluation (INFCE), and the benefits of secure waste management and disposal were highlighted. The United Nation Environment Programme (UNEP)

Agenda 21 has included safe and environmentally sound management of radioactive waste as part of their activities, since radioactive waste is inevitable when using nuclear energy. These all indicate that waste management should be considered as important when developing peaceful use of nuclear energy.

33. The NPT RevCon acknowledges the Final Document of the 2010 NPT RevCon, especially clauses regarding Article IV of the NPT and the preambular paragraphs 6 and 7 which mention the state's ability to research on the use of nuclear energy for peaceful purposes. Nuclear energy was an integral part of the MDGs and may contribute to the successful implementation of the SDGs in integrating the principle of sustainable development into domestic policies and programs.

34. The IAEA established the TC Programme to deliver services to its Member States. Through this program, the IAEA helps countries to build, strengthen, and maintain capacities in peaceful use of nuclear technology. The program focuses on applying nuclear energy to different aspects and nuclear security and safety.

35. As long as electricity is generated through the use of nuclear energy, the amount of nuclear waste is notable. In order to decrease this amount, current technologies should be revised and new technologies should be researched and introduced. Due to major technological advances, international information sharing is needed.

36. The IAEA is working on three programs important for information sharing. First, Coordinated Research Projects (CRP), which organizes international research work to achieve specific research objectives consistent with the IAEA program. Second, the International Low Level Waste Disposal Network (DISPONET), a network improving international practice and approaches in managing low and intermediate level waste. Third, Underground Research Facilities Network (URF Network), a regime for training and demonstration of waste disposal technologies and sharing of knowledge. These three programs all provide Member States and research organizations with nuclear waste knowledge and technology. All of the results are published so that every country has access to them.

37. The IAEA is providing technical expertise to NPT State Parties by sending security officers and by hosting the 58th General Conference of the Scientific Forum on "Radioactive Waste: Meeting the Challenge – Science and Technology for Safe and Sustainable Solutions." The Forum discussed nuclear waste disposal solutions concerning storage, safety, and better material.

38. The State Parties to the NPT seek to impart the potential hazards arising from incautious nuclear material management affecting both the society and the environment. International cooperation on the prevention of accidents and the consequences of natural catastrophes with harmful effects of ionizing radiation is vital in order to protect future generations. Therefore, events such as the Fukushima nuclear accident demonstrate the necessity for a universal high standard of safety in handling and storage.

39. The NPT RevCon highlights the importance of safe and environmentally sound transport of nuclear waste by recalling the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (1997), applying to spent fuel and radioactive waste when such materials are transferred permanently to and managed within exclusively civilian programs, or when declared as spent fuel or radioactive waste for the purpose of the Convention by the Contracting Party.

40. Noting the "Regulations for the Safe Transport of Radioactive Material" of 2012 set forth by IAEA which introduces detailed safety requirements for the transport of nuclear material such as nuclear waste. The guidelines refer to transport in the air, on land and water, and this document address governments, operators of nuclear facilities, nuclear waste carriers, users of radiation sources and cargo managing staff.

41. The NPT RevCon welcomes with great enthusiasm the research undertaken at the University of Manchester on microbial degradation of some nuclear wastes. This research has demonstrated the ability for some oxygenophilic bacteria to survive in hostile environment with high levels of radiation, and it also demonstrates the ability to decompose highly alkaline material of the same nature as most radioactive waste.

42. The NPT RevCon hopes to increase the numbers of Member States which develop and use different means of reprocessing nuclear material, such as PUREX. This technology uses chemical reactions to isolate Uranium

with the highest number of valence electrons, therefore reducing drastically the radioactive level of the residual wastes, and allowing the utilization of the resulting enriched Uranium to fuel nuclear facilities. Even though reprocessing technologies are effective ways of reducing the radiation risks related to the storage and disposal of nuclear wastes, the NPT RevCon reminds the Member States that those facilities have a potential risk to be misused to produce military- grade uranium. Therefore, the NPT RevCon must consider a country's conditions when deciding whether or not to provide technical assistance.

43. Since nuclear energy generated by Uranium fission has been criticized for the potential risk of misusing the element for the purpose of building weapons and of causing nuclear catastrophes, new technologies need to be invented and implemented as quickly as possible. The Thorium technology considers all relevant critiques. Thorium-based nuclear power is more efficient and safer because the technology provides meltdown-proofed reactors and makes it impossible to build nuclear bombs with side products of the energy generating process. There has been discovered sizable resources of Thorium all over the globe which can cover the worldwide energy consumption at the current level for at least 600 years. Further the innovation provides solutions on nuclear waste management due to its smaller problematic waste streams.

44. Emphasizing the education and training of nuclear plant personnel, nuclear scientists and security officers is a major sub-section of international information sharing. In this regard, the IAEA Technical Cooperation Program provides a suitable framework for human resources, bilateral and multilateral cooperation networks and provision of equipment. The focus on global information exchange is underlined by the Program's approaches on an international, interregional, regional and national level.

45. Reprocessing nuclear material addresses the issue of water scarcity, as reprocessed nuclear waste can be used for water desalinization. Water desalinization is an energy-intensive process, and according to the World Nuclear Association, used fuel has been recovered to close fuel cycles, gaining about 25-30 percent more energy from it.

D. Technical Cooperation for the Safety and Security of Nuclear Materials

46. The NPT RevCon welcomes the commencement of the 2015 NPT RevCon as momentum for discussion regarding technical cooperation for the peaceful use of nuclear energy from the 2010 Treaty on the Non-Proliferation of Nuclear Weapons Review Conference.

47. The NPT RevCon notes the success of National Nuclear Security Administration's (NNSA), Global Threat Reduction Initiative, (GTRI) that worked to convert the Maria Research Reactor in Warsaw from high-enriched uranium (HEU) to low-enriched uranium (LEU), with an effort to continue implementing Security Council resolution 1540 (2004), as unnecessary high enriched uranium increases the risk of proliferation to non-state actors.

48. The NPT RevCon is fully alarmed by the internationally defined weapon grade-level enriched uranium of 90 percent. The NPT RevCon notes that States Parties use a universal definition and therefore, the definition should be more compliant with regards to the security aspect of weapon grade-level.

49. The NPT RevCon recognizes the importance of safeguards, specifically the Model Additional Protocol, the EU's Commission's Report (COM(2015)571), which focuses on the protection of fissile materials in regards to protection from illicit trafficking to non-state actors, the Convention of the Physical Protection of Nuclear Material (CPPNM), in addition to the IAEA and the General Conference resolution GC(57)/RES/9 (2013), in relation to international safety and security. Strict compliance by all States Parties to all safeguards is necessary to guarantee the highest levels of non-proliferation and security of peaceful nuclear programs.

50. The NPT RevCon is cognizant of the fact that States are using 50 percent HEU or more enrichment for peaceful purposes; however to create a nuclear weapon, a significantly shorter time period is needed once reaching 50 percent enrichment, compared to the time needed to obtain weapon grade uranium from lower levels of uranium enrichment. The NPT RevCon further recognizes 80 percent as another important threshold in the process of enriching uranium and emerging threat to security in nuclear matters, given the fact that nuclear technology, such as the weapon used in Hiroshima on August 6th, 1945, was based on 80 percent HEU.

51. The NPT RevCon recognize the importance of the Model Additional Protocol, which is designed for States Parties that already have existing Safeguard Agreements with the IAEA to strengthen and improve the effectiveness of the safeguard system as a contribution to the global non-proliferation objectives, which in return can enhance the security of nuclear material transportation.

52. The NPT RevCon notes the lack of universal coding system regarding nuclear material. The NPT RevCon expresses concern over nuclear materials that have gone missing and the lack of ability to track the material back to the state where the material was last located.

53. The NPT RevCon recognizes the important work that the World Customs Organization's (WCO) Harmonized System (HS) plays in the realm of chemicals and their precursors with regarding to tracing the transportation of these materials.

54. The NPT RevCon recognizes the increasing threat of attacks by non-state actors utilizing nuclear material. The NPT RevCon commends the successes of the Global Initiative to Combat Nuclear Terrorism, a joint effort by the United States and Russia to strengthen global capacity to prevent, detect, and respond to nuclear terrorism through multilateral programs.

55. Further, the body acknowledges the lack of a tracking system of nuclear material, and is concerned with the illicit trafficking of nuclear materials by non-state actors, specifically noting the recent events of the Islamic State in its acquisition of low enriched uranium. The NPT RevCon notes that cooperation between States Parties IAEA is necessary to verify that nuclear material is not diverted to the construction of nuclear weapons or any other nuclear device, in order to ensure that higher levels of security are established and maintained.

56. The NPT RevCon encourages States Parties to take into account the potential risk of dual use goods pose in the international community, especially regarding the materials described in the Zangger Committees Trigger List. The NPT RevCon recognizes that through the emergence of nuclear technologies and energy, the international community must remain committed to ensuring the security of the transportation of these materials. With the already existing Nuclear Suppliers Group Guidelines as well as the current Trigger List provided by the Zangger Committee, the facilitation and development of nuclear material trade must remain consistent throughout the international community, and serve as a best practice for trade and transportation.

57. The NPT RevCon notes the success of the Vienna Convention on the Law of Treaties, specifically noting the establishment of good faith between States Parties, which demonstrates that States Parties can work together regarding international solutions with honesty and fairness.

58. The NPT RevCon notes the importance of dialogue and transparency between States Parties when utilizing Cooperation existing trade regimes. Further, the NPT RevCon commends the United States of America's 123 Agreements for Peaceful as it is a strict agreement best practice example for the transfer of nuclear material, equipment and technologies, in which States Parties must adhere to specific nuclear non-proliferation norms in order to engage in nuclear material trade and transportation.

59. The NPT RevCon notes the Yamoussoukro Consensus on South-South Cooperation as it relates to the necessity for developing States to work together towards development. The NPT RevCon recognizes that South-South Cooperation stands as a complement to North-South Cooperation, not as a replacement to.

E. The Peaceful Uses of Nuclear Energy: Fostering Sustainable Development

60. The NPT RevCon recall Article IV of the NPT and recognize the importance of information exchange and technical cooperation to enhance the peaceful use of nuclear energy, emphasizing in particular the need of the developing world. The NPT RevCon also recognizes and respects state sovereignty as stated in Article 2.1 of the Charter of the UN.

61. Furthermore, the NPT RevCon supports the draft SDGs, specifically the sixteenth and seventeenth, which encourages global partnership in regards to sustainable development. This demonstrates the connection between sustainable development and access to knowledge of technology as a global priority for the 2015 NPT RevCon.

62. The NPT RevCon recognize also the role played by developed States in partnering with the global south and regional organizations for physical and intellectual capacity building to promote confidence and increasing the level of transparency between the two through the utilization of nuclear energy technology.

63. The NPT RevCon highlights the current and past work of the IAEA to increase access to nuclear technology, especially, through the TC Programme and the Technical Cooperation Fund, which has provided capacity building, in the form of training and equipment to developing states.

64. The NPT RevCon commends the annual budget reports provided by the IAEA that are provided to all Member States as this contributes to transparency in its programs and boosts confidence in the IAEA.

65. The NPT RevCon acknowledges the negative stigma associated with nuclear energy development, such as the safety and security of nuclear facilities, the proliferation of nuclear material that could be utilized by non-state actors and the risks associated with the improper use of nuclear energy and technology. However developing countries view nuclear energy as a significant contributor to sustainable development in the safe uses of nuclear technology. By introducing nuclear energy to developing countries this opens the gateway for the utilization of more research and understanding of other nuclear technology fields such as agriculture, water, and health.

66. The NPT RevCon understands that nuclear energy is necessary for the development of nuclear technology such as power generation infrastructure, agricultural mechanisms, advancement of nuclear based medicine, and water resource management. The NPT RevCon sees the lack of nuclear health and medicine programs in the developing world in contrast with the high demand in these regions for these services especially with the high prevalence of infectious and non-infectious diseases.

67. The NPT RevCon deplores the devastation and despair that can be wrought by the abuse by non-state actors of nuclear technology. The NPT RevCon calls attention to the outcomes of previous NPT RevCons, in particular paragraph 36 and 38 of the Final Document of the 2010 NPT RevCon. The NPT RevCon believes the 2015 NPT RevCon highlights the importance of the universality of the NPT and the need for all States Parties to accept IAEA safeguards.

68. The States Parties are deeply alarmed and concerned by General Assembly resolution A/RES/65/151 (2010), which clarifies that 1.5 billion people in the world are still without access to electricity, let alone sustainable energy, despite advancements in the recent age.

69. The NPT RevCon expresses its deep concern an estimated 30 percent of the world population will lack access to clean water by 2025, and reiterates its willingness to pursue nuclear energy-based solutions to achieve water security. The NPT RevCon further acknowledges past IAEA successes in desalination technology through linking reverse osmosis desalination plants to existing nuclear energy reactors and is heartened by IAEA economic analyses showing that nuclear desalination projects can reduce the cost of a nation’s potable water distribution by as much as 7 percent.

70. The NPT RevCon notes the IAEA 2014 Climate Change and Nuclear Power report that recalls the role of nuclear power in reducing local and regional air pollution, the Conference underlines the importance played by nuclear energy in reducing local and regional air pollution and assisting in the fight against climate change.

71. The NPT RevCon calls attention to the fact that the World Bank analyzes the ability of states to invest in sustainable energy and produces reports to this effect, clearly stating which nations are ready to invest in and effectively utilize nuclear energy.

72. The States Parties view with appreciation the work of the International Institute for Educational Planning and acknowledge and desire to utilize its pivotal role in capacity-building in developing countries. In particular, States Parties must pay tribute to their Advanced Training Program directed at officials from developing States

and aimed at strengthening skills and competencies in using educational planning and management techniques and tools, including information systems and fostering the participants' personal and professional development through the acquisition or reinforcement of generic competencies and abilities.

F. Advancing Information Sharing, Education, and Multilateral Cooperation to Facilitate Technical Development

73. The NPT aims to provide "support for research, development and other efforts to further the application, within the framework of the IAEA safeguards system, of the principle of safeguarding effectively the flow of source and special fissionable materials by use of instruments and other techniques at certain strategic points."

74. The NPT uses its three pillars of disarmament, non-proliferation, and the promotion of peaceful uses of nuclear infrastructure. The NPT works with the IAEA to set forth and/or fulfill the mandates and universalization of the NPT.

75. The NPT recognizes the attempts and efforts of the 2010 NPT RevCon. The Conference recalls Article 43 of the Final Document of the 2010 NPT RevCon, recognizing the importance of regional cooperative arrangements for the promotion of the peaceful use of nuclear energy.

76. The legal framework would operate upon the belief that everything in this report should be respectful of state sovereignty and hold no prejudice. Working through the UN charter, specifically Article II, Section I, the body calls upon all non-members of the NPT in the region and abroad to adopt the NPT with these new enrichments.

77. The NPT RevCon reaffirms the content of Articles III, and IV, of the NPT but also understands the concerns related to the sharing of nuclear technology. The Conference specifically highlights article III paragraph I and article IV paragraph II of the NPT and continues to accept its importance regarding technical cooperation of peaceful nuclear energy.

78. The IAEA has always recognized the importance of national sovereignty and that no other Member State has the right to take natural resources such as uranium without consent.

79. The NPT RevCon echoes the sentiments of international organizations that wish to facilitate and promote diffusion of peaceful nuclear technology to developing Member States, such as the OECD and World Nuclear Association (WNA).

80. The NPT RevCon reiterates the importance of the Model Additional Protocol implemented by the IAEA Board of Governors in 1997 and notes the challenges some non-nuclear weapons states have signing the protocol. In order to increase fundamental trust and transparency between the IAEA regional nuclear energy commissions, and all Member States involved are encouraged to seek and promote methods that allow more inclusive allocation of resources.

81. Currently, the IAEA holds symposiums concerning international safeguards that happen regularly, however the scope of these could be broadened for efficacy, including, but not limited, to, nuclear waste management. The IAEA also sponsors Joint Training Programs, such as Co-operative Agreement for Arab States in Asia for Research, Development and Training related to Nuclear Science and technology (ARASIA), which is an original training program concerning isotope technology dealing with agriculture and marine environments.

82. Recognizing the success of the Nuclear Regulatory Commission in providing training and funding supporting nuclear science, and related disciplines in order to create a capable workforce supporting the design, construction, regulation, and operation of nuclear facilities and the safe handling of nuclear materials.

83. The conference seeks to establish collaboration between the IAEA and the International Renewable Energy Agency (IRENA) in order to support technical Research and Development in the field of nuclear energy production.

84. The UNGA has declared 2012 the international year of sustainable energy for all (SE4ALL), to increase awareness for the importance of addressing energy issues. This declaration was the initiation process to begin cooperation between SE4ALL and IRENA which aims to build a renewable energy framework in doubling the rate of improvement of energy efficiency, and ensuring universal access to modern energy services and training.

85. The IAEA TC Programme brings together and trains experts for the purpose of helping member states start and maintain nuclear programs, along with Site and External Events Design Review Service (SEED review service), which helps with site selection, site evaluation review, hazard evaluation review, safety review for hazards, environmental assessment and safety margin assessment. We would like to further use these services for the expansion of agricultural, medical, and scientific applications, specifically toward the Middle East, but not limited to that region. We may also turn attention to the Arab Atomic Energy Agency (AAEA) whose mission is similar to that of the Technical Cooperation Programs, if applicable.

86. The NPT RevCon supports regional bodies, such as the African Network for Education in Science and Technology (AFRA-NEST), which is affiliated with the IAEA and is composed of 34 African Member States, the Asian Network for Education in Nuclear Technology (ANENT), which is also affiliated with the IAEA and is composed of 19 Asian Member States and the Latin American Network for Education in Nuclear Technology (LANENT), which is affiliated with the IAEA and is composed of 14 Latin American States.

87. Information sharing is crucial in the international community; this body recommends the implementation of the IAEA Nuclear Fuel Cycle Information System, an international directory of civilian nuclear fuel cycle facilities. The NFCIS gives the IAEA, Member States, and public users current, consistent, readily available information on existing, closed, and planned nuclear fuel cycle facilities.

88. The NPT RevCon echoes the sentiments of the Security Council resolution 1886 (2009), which encourages Member States to remove barriers to access of nuclear energy and seeks to create initiatives that promotes state-to-state transparency and regional-state transparency in order to share meaningful nuclear information among the states in a region or regions efficiently.

89. The NPT RevCon also recognizes the advantages of increasing transparency between nuclear policy makers, and the security of nuclear documents by a prioritized organizational tier systems, which regulates the flow of nuclear information from the IAEA nuclear regional commission, Member States involved, and independent nuclear professionals/ inspectors and involve regional centralization, academic nuclear professionals, and the general public/media for the development of an international partnership.

90. Recognizing the information providers and receivers of nuclear documentation as: The IAEA, Member States involved, Regional Nuclear Energy Commissions and Organizations, facility operators, nuclear inspectors, independent research institutions and the general public media.

91. Acknowledges General Assembly resolution A/RES/32/50 (1977) , highlighting a need for greater international cooperation in the sharing of technology, Security Council resolution 1747 (2007) reinforcing the importance of the NPT and Security Council resolution 1887 (2009) which encouraged states to remove barriers to accessing technologies in order to foster greater cooperation.

92. The NPT RevCon reaffirms the need for educational awareness around the peaceful use of nuclear technology, while recognizing the desire for emerging nations to incorporate nuclear technology may be impaired by a lack of knowledge, education, and awareness. Furthermore, the NPT RevCon notes that the deficiencies in education of those interacting with nuclear technologies can create local and international security concerns as well as impair the efficient use of such technologies.

93. The NPT RevCon realizes the importance of using education as a tool through which awareness regarding the benefits and drawbacks of nuclear energy can be raised. Therefore, educational programs to raise awareness about the nuclear sector from both, the energy and weapons aspects, shall be initiated in order to equip populations with the knowledge of using and developing such technologies.

94. The NPT RevCon recognizes that many developing nations are lacking the information that developed countries have. The NPT RevCon appreciates that a high standard of technical education related to applications of nuclear energy is imperative to the success of developing nations in their utilization of nuclear technologies. The body recognizes that the deficiencies in education of those interacting with nuclear technologies can create local and international security concerns as well as impair the efficient use of such technologies.

95. Acknowledges that the IAEA, as the main international organ for the promotion of safeguards and the development of nuclear programs, has a great responsibility for the execution and the funding of them. However, The Conference recognizes that there are doubts concerning the IAEA's budget allocation that jeopardizes the transparency of the agency.

96. The conference notes that many emerging nations do not have the funds necessary to promote the education and research necessary to advance technical education. The conference also brings attention to the issue that Non-Governmental Organizations (NGOs), regional organizations (ROs), and elements of civil society are key players in propagating nuclear education in such instance. The NPT RevCon appreciates the IAEA's existing programs and their ability to educate technically concerning nuclear capacity building. In particular the Power Reactor Information System (PRIS) database and the Technical Cooperation program Cycle (TPC) are both valuable resources for states wishing to build their technical capacities.

97. The body recognizes the importance of educational and research facilities on the progress and transparency of peaceful nuclear technology, such as Ghana's SNAS and NNRI. The SNAS is a Ghanaian university that specializes in multiple disciplines of sciences including nuclear technology and training. The NNRI is the facility in Ghana in which the scientists conduct research and work to create new nuclear technologies. Transparency is created through these as the technology and information is shared with fellow nations from these facilities.

G. Crisis Management: Prevention and Response

98. The NPT RevCon affirms the NPT as the cornerstone for cooperation towards the development of nuclear technology for peaceful uses. The NPT RevCon draws attention to the critical role that the NPT plays in furthering multilateral cooperation and preventing nuclear disasters.

99. The NPT RevCon welcomes States Parties' initiatives to increase technological cooperation for the peaceful use of nuclear energy, particularly in the areas of nuclear transportation and emergency response. The NPT RevCon recognizes the successful implementation of national and multilateral emergency preparedness programs that formulate adequately educated and prepared teams to respond to emergency situations and prevent such crises

100. The NPT RevCon acknowledges that employing high levels of safety is an important prerequisite for States operating land-based nuclear power plants, as outlined in the Convention on Nuclear Safety, in addition to developing early warning systems specifically designed with regards to the potential of a nuclear disaster for State's Parties. This is a responsibility of any state actively utilizing, or attempting to utilize, a sustainable nuclear energy infrastructure.

101. The NPT RevCon recognizes the necessity for securing future cooperation between States Parties in order to mitigate the serious threat posed by nuclear disasters. The NPT RevCon recalls that the 1986 Chernobyl crisis, in Ukraine, required a new level of threat assessment for the nuclear age and recognize that recent events including the 2011 nuclear disaster in Fukushima, Japan and the continued expansion of nuclear technologies require a continued commitment to quick and efficient action.

102. The NPT RevCon reaffirms the crucial role of the IAEA Emergency Preparedness Review Service (EPREV) as the primary method of evaluating the current state of nuclear emergency preparedness. Additionally, The NPT RevCon recognizes the importance of the IAEA Response and Assistance Network to provide international assistance after a nuclear emergency.

103. The NPT RevCon affirms the spirit of the IAEA's Incident and Emergency Centers (IEC) mission to enhance the preparedness of States Parties for nuclear and radiological emergencies through their Incident and

Emergency System (IES). The NPT RevCon further supports the IAEA and its achievements in their 58th General Conference which endorsed the combined UN (UN) and IAEA efforts in the Action Plan on Nuclear Safety as well as the IAEA Peaceful Uses Initiative. The NPT RevCon welcomes States Parties' initiatives to increase technological cooperation for the peaceful use of nuclear energy, particularly in the areas of nuclear transportation and emergency response. The NPT RevCon recognizes the successful implementation of national and multilateral emergency preparedness programs that formulate adequately educated and prepared teams to respond to emergency situations and prevent such crises.

II. Mandate

104. The Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons is responsible for reviewing and supporting the implementation of the treaty guided by its three pillars of disarmament, non-proliferation, and the peaceful uses of nuclear technology. In order to comply with this mandate, the Review Conference shall consider any questions or matters within the scope of the NPT, arriving at conclusions and making recommendations related to the implementation of the Treaty.

III. Conclusions and Recommendations

A. Enhancing the access to nuclear materials for peaceful purposes through the Nuclear Bank Network

105. The NPT RevCon recognizes the importance of ensuring complete effectiveness of Article IV in the NPT. In the current status quo, NPT RevCon also believes that due to financial and political issues, the Article IV of the NPT is not adhered to as only 31 Member States currently have a national nuclear program. Therefore it recommends the adoption of concrete measures to address this pressing issue and suggests the establishment of a multilateral fuel solution to promote the universalization of fuel access.

106. The UN Institute for Disarmament Research (UNIDIR) has suggested the establishment of fuel banks as a potential solution to this issue. It would act as a back-up supply for nuclear power reactors for State Parties on a non-discriminatory and apolitical basis. It can lower the risk of nuclear weapons proliferation by enforcing comprehensive safeguards to allow a safe and peaceful use of development of nuclear energy.

107. For many developing states, access to nuclear fuel is problematic. Therefore, the NPT RevCon recommends the establishment of the Nuclear Bank Network (NBN), a network of regional LEU banks. The NPT RevCon suggests that the NBN be coordinated through the IAEA. These LEU banks would cater to regional needs and specificities and would have two roles:

108. The first role would be to serve as an alternative emergency LEU source for eligible countries. Such a back-up would be able to prevent major disruptions in the nuclear fuel supply market. Where possible, NPT RevCon encourages the IAEA to promote the acquisition of reprocessed LEU for the NBN.

109. The second role would be to assist developing states wishing to start peaceful nuclear programs. It would supply LEU to state parties recommended by the IAEA TC Programme. The NPT RevCon recommends that the Board of Governors of the IAEA manage the evaluation of countries according to criteria set out in the IAEA Board of Governors resolution GOV/2010/67 (2010) and in respect to the RSA and the NPT. Such assistance would only be possible if it is preceded by a TC Programme where the country has signed an IAEA-approved Country Program Framework. The NPT RevCon would like to underline the fact that this supply of LEU to states is the last step after the establishment of nuclear infrastructure and capacity-building through the TC program.

110. Due to high proliferation risks, the NPT RevCon deems it necessary that the NBN enforce comprehensive safeguards to the LEU which the NBN supplies and requests the IAEA help it in such a task. Only the Member States which adhere to these safeguards would be eligible for assistance from the NBN.

111. Furthermore, states in the NBN also need to respect a number of comprehensive safeguards such as the RSA or the signature of the NPT. In addition, the IAEA must have concluded in the latest Safeguards Implementation Report concerning the country that there has been "no diversion of declared nuclear material and no issues

related to safeguards implementation." The enforcement of comprehensive safeguards would allow supplier states to limit risks of proliferation in supplied states.

112. The NPT RevCon recommends the use of the GNSSN to ensure the security of LEU material to ensure that nuclear fuel does not fall into the hands of those looking to disrupt international peace and security. The NPT RevCon further recommends the GNSSN allocate increased resources to staffing to meet this new demand. The secure control of LEU is important to ensure the material meets the safeguards put forth by this body and reaches the proper recipient countries.

113. The NPT RevCon advises furthering collaboration with the Nuclear Suppliers Group (NSG) to ensure the safety of LEU to and from supplier countries through the application of the IAEA safeguards brought forth in this document.

114. To mitigate the risk of hostile actions from non-state actors the NPT RevCon recommends that there should be limits to the stocks of nuclear fuel owned by each regional LEU bank. These limits would consist of five refills of a standard 1000 MW nuclear plant.

115. The Board of Governors of the IAEA has already been addressing the issue of the IAEA LEU Fuel Bank in Kazakhstan and as such, the NPT RevCon recommends it further manage and develop LEU banks of the NBN. As the Board of Governors is elected by the IAEA's General Conference through equal regional representation, the NPT RevCon believes that its diversity allows it to represent the interest of all state parties. Furthermore, the NPT RevCon recommends that the IAEA serve as coordinator between the regional LEU banks in matters of resource sharing, both in technology and fuel.

116. Due to the high costs of building a LEU bank, as seen in the IAEA LEU Fuel Bank in Kazakhstan, the NPT RevCon deems it necessary to establish clear programs for ordinary and extraordinary spending. As such, the NPT RevCon recognizes the work done in the Board of Governors' resolution GOV/2010/67 but deems it necessary to expand sources of funding.

117. The NPT RevCon recommends that the operational funding be partially found through the IAEA and partially through existing nuclear development funds such as the Peaceful Uses Initiative or the Nuclear Threat Initiative. The NPT RevCon asks State Parties and international institutions which have shown support for nuclear fuel projects in the past to continue doing so through the NBN. Furthermore, the NPT RevCon recommends that State Parties and international institutions reallocate financial resources to support and to put a focus on the NBN.

118. For extraordinary events such as large-scale development projects or unplanned events, the NPT RevCon recommends a two-fold funding program. Due to the risks linked to nuclear technology, it is essential to maintain rapid access to funding for disaster response. Therefore, the NPT RevCon recommends that a fixed percentage of budget, such as five percent, would be allocated to the Nuclear Disaster Assessment and Response Team.

119. As seen before, the costs of building LEU banks are substantial and as such, the NPT RevCon recommends the adoption of a multi-source extraordinary funding with contributions from the IAEA, through the Technical Cooperation Fund and the Nuclear Security Fund, and other existing funds and initiatives such as the Peaceful Uses Initiatives or the Nuclear Threat Initiative. In addition to these contributions, NPT RevCon encourages voluntary contributions from Member States, corporations and individuals.

B. Peaceful Uses Initiative for Multinational Development of New Generation Nuclear Reactors

120. Due to the fact that developed states currently possess a significant amount of the funding and technology necessary for the development of nuclear energy programs, the NPT RevCon firmly recommends increased commitment of financial capabilities and assets from developed States Parties for use in the IAEA's TC Programme. The NPT RevCon aims to increase the PUI fund as a subset of the TC Programme fund and direct the usages of their funds towards increasing the cooperative and productive exchange of peaceful nuclear technology and research for developing States Parties.

a. The language in this report defines developed States Parties as those States Parties whose Human Development Index (HDI) score remains above 0.700. This index, compiled by the UN Development Programme (UNDP), takes into account factors which include not only economic criteria, but also other facets of the development process including life expectancy, education, and gross national income (GNI).

b. There are numerous ways to define a "developed state," including GDP per capita and the HDI. Due to the fact there is no universally accepted criteria to define a "developed state," the recommendation to set the minimum HDI comes from the recent emergence of the Federative Republic of Brazil as a developed state. It is important under the consideration of the topic regarding the peaceful uses of nuclear energy to take into account other factors of a State's development prior to contributing to the fund.

c. The NPT RevCon recommends that developed States Parties assume responsibility for any outstanding financial needs of the PUI, which should ensure funding for any projects short of funds. Funding should support nuclear research and implementation programs for both developed States Parties and less-developed States Parties.

121. The NPT RevCon recommends the implementation of Strategic Controls and Regulations for Energy Efficiency Support (SCREENS), utilizing the Critical Infrastructure C to be overseen by the PUI funding body, which should ensure the proper utilization of said funds received by States Parties and the allocation of those funds towards the formation of nuclear energy capabilities and aforementioned "under-funded thematic packages".

a. The "thematic packages" should specifically benefit developing States Parties by providing potential electrical capabilities as the primary benefit of the peaceful use of nuclear energy, by ensuring the safe development of nuclear energy plants and the processing and disposal of nuclear waste, and other related matters. Currently, these projects are underfunded.

b. In order to address any potential concerns regarding the depletion of funds related to the peaceful use of nuclear energy and not related to the PUI fund, the NPT RevCon recommends a review of the IAEA budget in order to ascertain any overlap in the separate funds within the budget. Currently, the IAEA budget contains several existing "thematic packages" already contained within the PUI. The NPT RevCon recommends this review of finances be carried out in such a way that the primary focus of the audit benefits developing States Parties. Since the aforementioned PUI "thematic packages" benefit those considered developing States Parties, it would be productive to allocate the increase in funds for the PUI towards those States Parties in direct need of assistance for under-funded projects.

c. SCREENS should also be responsible for appointing an impartial review committee to examine the budget of the IAEA and look for said overlaps in the budget.

d. States Parties that require assistance from the fund should apply for a research and implementation grant from the PUI based on their specific need. In order for the application process to be approved, the SCREENS initiative should send professional experts from the relevant fields in accordance with the "thematic packages" to analyze the proposed project. SCREENS should measure the feasibility, necessity, and estimated cost of completion.

e. Through these measures, States Parties both developed and less-developed, should be able to not only increase technical cooperation, but also strengthen cooperation with the IAEA and fulfill duties outlined in the Articles IV and V of the NPT.

f. Developed States Parties should fulfill the requirements outlined in the Article IV of the NPT to support and facilitate the diffusion of nuclear technology to less-developed States Parties, help reinforce the precedence of the NPT and IAEA, and expand existing partnerships and diplomatic ties between developed and less-developed States Parties.

g. Less-developed States Parties should benefit through increased sustainable development through nuclear energy while increasing cooperation with developed nations to create responsible implementation of nuclear initiatives. These States Parties should also achieve decreased dependency on energy from other countries. Lastly, less-developed States Parties should strengthen current and future cooperation with IAEA safety and security standards.

h. Furthermore, all States Parties to the treaty should benefit from socio-economic benefits as a result of cost-efficient, clean energy provided through nuclear advancement. These benefits enable both developed and less-developed states to continue contributions to the TC Programme and PUI for future development, research, and implementation.

122. It is further recommended that the PUI fund should create a verification process that should ensure that all funds allocated to the PUI are utilized purposefully and efficiently through the monitoring of SCREENS. This verification process should involve any state that receives funding from the PUI under the heading of SCREENS. These States Parties should be required to disclose to the SCREENS body annually through a report of what specifically was accomplished through the utilization of the funds. States Parties would disclose their reports directly to the recommended SCREENS body. This verification process should follow the guidelines found under the Comprehensive Nuclear-Test-Ban Treaty, which utilizes the International Data Center, which the NPT RevCon recommends should verify the funds spent and received by States Parties in conjunction with On-site Inspection measures to verify the financial activity listed within annual reports.

123. In order to further ensure security and to avoid the said research falling into control of hostile parties, the NPT RevCon recommends that the following requirements be met for a state to receive any funding from SCREENS:

a. The States Parties must be in good standing within the IAEA body, adhering to all protocols of the organization.

b. The States Parties must be in good standing within the NPT, adhering to all protocols of the treaty and conferences.

c. The States Parties are directly recommended by the IAEA or NPT to SCREENS as recipients of funding.

124. The NPT RevCon supports the regional cooperative arrangements such as the initiatives amongst Latin America and the Caribbean States (ARLAC) to emphasize reactor core analysis, including physics and thermo-hydraulic studies, supplemented by training courses on the use of research reactors. Through ARLAC, the international cooperation between the States Parties related to the research and development in the field of new generation of nuclear reactors, and encompassing joint research programs, sharing of knowledge and resources and other technical cooperation, is encouraged in order to accelerate the advancements in the implementation of these kinds of reactors.

125. The States Parties possessing nuclear power facilities should consider the conversion from the Generation III nuclear reactors, which are currently in use, to the Generation IV nuclear reactors being developed by Generation IV International Forum (GIF), and which provide a clean, safe and cost-effective source of energy, in particular through the following technologies: gas-cooled fast reactors, lead-cooled fast reactors, molten salt reactors, sodium-cooled fast reactors, supercritical water-cooled reactors, very high-temperature gas reactors. The States Parties, which already operate nuclear reactors, are actually aware of the costs, financial and resource-based, associated with building a new reactor. The NPT RevCon therefore propose that the States Parties engage in the research of possibilities of upgrading Generation III reactors into Generation IV reactors, since this would be a promising solution to the issue of having old closed models of nuclear facilities.

126. The NPT RevCon encourages States Parties to set a tentative deadline of 2020 as a latest date for putting into consideration the introduction of the Generation IV nuclear reactors in national energy policies. These efforts by national governments would be addressed in the next NPT RevCon in 2020.

127. The NPT RevCon further invites the States Parties to consider the introduction and construction of new nuclear plants cognizant of the technology advancements being researched within the GIF, and to invest into construction of new generation of nuclear reactors in order to ensure maximal safety and security.

128. Aware of the fact that nuclear power plants require immense funding in order to be built and operated, the NPT RevCon therefore suggests that States Parties cooperate and develop Multinational Power Plants (MPPs) on their territories, with a special consideration for States Parties lacking sufficient financial and technical resources. These MPPs must be situated in zones not being in a conflict and deemed suitable after an inspection by the IAEA. Every country involved in the project would benefit economically by sharing profits from the commercial profits of the MPP.

129. Since the adherence to standardized IAEA safeguards is essential to international peace and security, all States Parties wishing to take part in an MPP program should follow all IAEA and NPT guidelines. Therefore, the States Parties should agree to inspectors being sent to visit their nuclear power plants and to receive help by the IAEA to make the necessary steps in following the guidelines by training governmental experts and providing technical expertise. It should be ensured that every MPP facility is provided the same level of safety in order to prevent unforeseen nuclear incidents.

130. The MPP facilities would have a shared ownership and authority by several States Parties being involved in the project, each of the parties owning an equal part. This would significantly reduce the risk of illicit use of nuclear facilities with a goal of running an undeclared nuclear program since every country would have an insight into an MPP's functioning.

131. Since Article IV of the NPT strives for the peaceful use of nuclear energy, the NPT RevCon emphasizes the need of a limitation of the stock of high-enriched uranium usable for development of nuclear weapons in the multilateral facilities in order to prevent theft, loss, unauthorized sale or use. Furthermore the use of Generation IV nuclear reactors in the new MPP projects is highly recommended since this new technology would provide a clean, safe and sustainable source of energy.

132. The NPT RevCon recommends the IAEA Board of Governors to consider joining the International Thermonuclear Experimental Reactor (ITER) and providing additional financial resources, with a goal of advancing the research of nuclear fusion for commercial purposes and including the entire international community in order to make all the States Parties benefit from the advantages related to the nuclear fusion research. The IAEA should therefore allocate more funding towards the research of nuclear fusion and development of new generation nuclear reactors.

133. The NPT RevCon encourages the States Parties to make extra-budgetary contributions to the IAEA for the purpose of financing the aforementioned nuclear fusion research project. The States Parties are further encouraged to provide incentives for the private sector, such as subsidies and diversification of the energy portfolio by including more advanced renewable energy source, in order to involve private companies in the process of building of Generation IV reactors.

C. Improving International Cooperation on Decreasing Nuclear Waste and its Hazards

134. The NPT RevCon recommends international cooperation on knowledge and technical information sharing, within NPT Member States and under IAEA monitoring in order to promote safer and more environmentally-oriented waste management solutions. In the 58th General Conference of the IAEA Scientific Forum, the issue of "Radioactive Waste: Meeting the Challenge - Science and Technology for Safe and Sustainable Solutions" was discussed. Due to its success, the IAEA Scientific Forum is requested to add the issue of nuclear waste management as an annually discussed topic.

135. The NPT RevCon recognizes the importance of strengthening the role of the IAEA. Therefore, the NPT RevCon suggests the enlargement of the IAEA training center facilities and emphasizes the Member States' responsibility to assist the IAEA in this endeavor. Under the IAEA TC Programme, training centers should educate nuclear plant personnel, nuclear scientists and security officers in radioactive waste management. More

precisely, NPT Member States are asked to increase their financial contributions related ability to the Technical Cooperation Fund for the purpose of finding innovative and secure solutions for waste management.

136. The NPT RevCon urges all IAEA Member States to engage actively in CRP, DISPONET and URF Network in order to understand the latest progress of nuclear waste management. Once more states and research organizations attend the three programs, a greater variety of energy production and radioactive waste regulations could be discussed and further improved. Information is spread more easily throughout the attendees. Moreover, the NPT RevCon encourages close collaboration and exchange between the three networks in order to increase efficiency.

137. The NPT RevCon encourages all Member States to prevent the abuse of nuclear waste by non-state actors. Therefore, it is recommended that Member States focus on an international cooperation level on the improvement of safeguards concerning the transport of radioactive material. Thus it is of utmost importance that the Regulations for the Safe Transport of Radioactive Material (2012) by the IAEA are implemented by every state tackling the transport of nuclear waste. Concerning this implementation, this conference calls for special attention on Section V - Requirements and Controls for Transport which outlines precise conditions for packaging.

138. The NPT RevCon suggests enforcing research and development in the areas of reducing nuclear waste:

    a. by encouraging the more effective Thorium technology pushed forward by the International Thorium Committee and by calling upon Member States to actively participate in the Committee taking into consideration the economic strength and nuclear research capacities of a nations.

    b. by ensuring that new reactors should incorporate Thorium technology with the long term goal of full replacement of the Uranium fuel cycle within the next 50 years.

    c. by implementing international and regional conventions for the transfer of scientific knowledge and exchange of best practices regarding the extraction of relevant resources and the efficient use of thorium as a fertile element.

139. The NPT RevCon recommends all Member States, especially those already engaging in nuclear waste reprocessing, to consider methods to reduce nuclear waste by implementing and improving mechanisms of recycling. Moreover, the international community should focus on sharing best practices, including reusing uranium for alternative energy production and achieving water desalinization by reprocessing nuclear waste. Member States are encouraged to consult the World Nuclear Association as an information-sharing platform.

140. The NPT RevCon recommends that Member States patronize the efforts of the scientific and academic community to further study solutions to manage nuclear technologies such as microbial degradation of radioactive materials, high temperature vitrification, and the possible implications of fungus in the degradation of radioactive materials.

D. Technical Cooperation for the Safety and Security of Nuclear Materials

141. The NPT RevCon implores States Parties to voluntarily support the United States' Global Threat Reduction Initiative through the cooperation of the NNSA and willing and able States Parties aiming to assist in the conversion of all available HEU to LEU reactors. The NPT RevCon recommends any adoption be supervised by the IAEA to ensure security and safety of conversions.

142. With the establishment of the IAEA Safety Standards, States Parties are able to effectively gain guidance on compliance with safety requirements in regards to emergency preparedness and response. Therefore, there is an increased focus on standards when dealing with a nuclear incident and those of natural disasters, which poses an intrinsic risk to the peaceful uses of nuclear energy.

143. The NPT RevCon is cognizant of the fact that States are using uranium with 50 percent or more enrichment for peaceful purposes; however due to the relatively short time period to create a nuclear weapon after reaching 50

percent enrichment. The NPT RevCon believes that an additional international standard, further adopted by the IAEA, is needed to increase transparency and enhance information sharing regarding uranium enrichment programs between States Parties.

144. To enhance information sharing and transparency, The NPT RevCon suggests the implementation of IAEA standard inspections of nuclear material if the IAEA has declared a nuclear facility of producing 50 percent HEU the facility should be classified as a possible-nuclear weapon grade reactor site. Through voluntary subsequent reports, the IAEA should monitor this facility with respect to state sovereignty and the Model Additional Protocol. The NPT RevCon further recommends defining the international minimum standard for weapon grade uranium as 90 percent enrichment as declared by the Nuclear Threat Initiative.

145. The NPT RevCon strongly encourages all Member States who have not yet done so to comply with all safeguards and sign the Model Additional Protocol with the IAEA, specifically concerning the transportation of nuclear material in and out of their borders. Notification specifying the identification, the expected quantity and composition of the nuclear material to be transferred, as well as the dates of dispatch and arrival shall be given to the IAEA. The Agency shall also be given notice of at what point of the transfer the recipient State should assume responsibility for the nuclear material.

146. The NPT RevCon recognizes the need for transparency and efficiency regarding the transportation of nuclear materials to be utilized for nuclear energy. The NPT RevCon supports the discussion of a Sales Registry Organization on nuclear technologies. The NPT RevCon recommends it to be based on the best practices of the Norwegian Initiative on Small Arms Transfers, to be modeled closely after and placed underneath the WCO HS. These transactions in matters concerning the exchange of nuclear technology should be reported, similar to the way the WCO HS already applies to chemicals and their precursors. States Parties that engage within these transactions would be requested to declare the exact utilization of these technologies in order for the international community to ensure the proper utilization of nuclear energy. The NPT RevCon notes that by utilizing this chain of control mechanism to further establish the accountability of transportation, the international community can intrinsically link safety and security of nuclear materials with secure transportation, thus ensuring the maintenance of nuclear materials to be utilized for peaceful purposes.

147. Furthermore, the NPT RevCon encourages for the WCO HS Database to encompass annual reports of these transactions, which would be made available for all States Parties to access. Finally, once reporting has occurred, the NPT RevCon recommends that when the transportation of nuclear materials is deemed a threat to the maintenance of international peace and security, the WCO, in accordance with States Parties recommendations, requests for the UN Security Council to be notified of these threats.

148. The NPT RevCon encourages States Parties who wish to engage in nuclear material trade to adhere to the Zangger Committee's Trigger List, which comprises of sources of special fissionable materials and equipment/materials that are designed for or prepared for the use, production, or processing of fissionable materials. The NPT RevCon finds it imperative to adhere to the Trigger List to ensure that through voluntary compliance, States Parties are able to engage in secure trade with one another, while still maintaining the commitment to the non-proliferation of nuclear weapons and materials.

149. The NPT RevCon has found that through the Zangger Committee's Trigger List, there is a lack of an exhaustive focus on nuclear materials and its secure transportation. Due to this, the NPT RevCon finds it is imperative to request the importance of maintaining a Trigger List, which encompasses all nuclear related materials within the Zangger Committee's Trigger List by the Zangger Committee's 38 States Parties. However, the NPT RevCon does acknowledge the work of the NSG's Guidelines for Nuclear Transfers with the inclusion of nuclear materials within their transportation framework.

150. With regards to States' rights to purchase, sell, and trade nuclear material and facilities, the NPT RevCon strongly recommends States Parties continue to work in good faith as established in Article 42, Clause 2 of the Vienna Convention on the Law of Treaties (VCLT). Furthermore, The Decree on Strategic Goods of the Netherlands and the Wassenaar Arrangement serve as best practices to promote the facilitation of the transit of dual use goods related to chemicals and their precursors. The NPT RevCon recommends that these current programs serve as guidelines to monitor nuclear dual-use goods in accordance with the IAEA.

151. The NPT RevCon recognizes the Proliferation Security Initiative (PSI) as a significant effort to counter the spread of Weapons of Mass Destruction (WMD) their delivery systems and related material from states and non-state actors. Through this initiative, the international community can ensure that nuclear materials remain utilized for peaceful purposes only. The initiative promotes legally binding international treaties to criminalize international WMD-related trafficking by commercial ships and aircraft; sharing expertise and resources to build critical interdiction capabilities and practices, which in return promote the utilization of nuclear materials for peaceful purposes only.

152. The NPT RevCon suggests the implementation of Mongolia's and the United States' Nuclear Energy Agency Memorandum of Understanding in order to equip Mongolian borders with modern nuclear detection technology by all States Parties. This enables States Parties to gain the capacity and assume responsibility for preventing nuclear trafficking across the border, thus promoting State ownership.

153. Tracking the transport of nuclear material across national borders is a crucial aspect to the security of non-proliferation of destructive technologies. Therefore, the NPT RevCon encourages States Parties to entertain the International Radiological Assistance Program Training for Emergency Response (I-RAPTER) facilitated by the IAEA and the United States' National Nuclear Security Administration (NNSA) as a best practice model for border control and security for States Parties.

154. The NPT RevCon requests for the further development and implementation of customized state-level safeguards approaches for all States Parties, through the IAEA's Department of Safeguards, in order to better take into account relevant State-specific factors that may affect the ways in which safeguards are implemented and utilized in States Parties. Furthermore, The NPT RevCon urges States Parties to align their policies with the IAEA's State Level Concept Framework, as a means of strengthening the efficiency and the effectiveness of IAEA Safeguards and Inspections.

155. The NPT RevCon strongly supports the improvement of transparency guidelines regarding nuclear safety, with a specific focus on safety during transportation of nuclear materials, implemented by the IAEA's Nuclear Safety Action Platform. Promoting transparency should encourage States Parties to fully commit to the rules and regulations outlined in the IAEA's 2011 Action Plan on Nuclear Safety. The NPT RevCon encourages States Parties to endorse improvement of transparency procedures, which can then help to encourage states to adhere to the procedures and policies regarding nuclear safety as defined in the Action Plan on Nuclear Safety.

156. The NPT RevCon suggests the creation of a task force for Managing and Identifying Nuclear Equipment (MINE) by the UN Office for Disarmament Affairs (UNODA), as modeled after the UNODA Program of Action, specifically their International Tracing Instrument program, related to Small Arms and Light Weapons (SALW). This Task Force would be to codify nuclear reactors, thus increasing transparency as well as confidence building between States Parties.

157. However, the NPT RevCon notes that these detection systems are not an absolute end all to the illicit trafficking and transporting of nuclear material across borders. This is a direct infringement on the utilization of nuclear energies for peaceful purposes, as it poses a direct violation to Article IV of the NPT, which maintains the nuclear energies and technologies shall only be utilized for peaceful purposes. Therefore, the NPT RevCon urges for States Parties and National Authorities to foster a strong relationship with international law enforcement agencies, such as INTERPOL or UN-POLICE to ensure that enforcement of standards remains a priority within the international community.

158. The NPT RevCon finds the necessity of a comprehensive guideline for the international community related to the transportation and trade of nuclear materials that are to be utilized for peaceful purposes. This differs from the NPT RevCon's previous recommendations regarding tracing initiatives due to the necessity of trade regulations being enacted within a States Parties to ensure the security of nuclear materials. Therefore, the NPT RevCon recommends for the expansion of the Nuclear Suppliers Group (NSG) to include all States Parties who are pursuing nuclear technologies in order to effectively establish transportation guidelines in the early stages of nuclear development. Through the NSG and a partnership with the IAEA's Transport Safety Appraisal Service

the international community can establish comprehensive transportation and trade regulations, providing a specific emphasis on developing States, in order to ensure that the transportation of nuclear materials remains secure.

159. The NPT RevCon recommends the parties to the NPT to facilitate regional joint training programs, similar to the I-RAPTER facilitated by the IAEA in cooperation with the NNSA for Iraqi and Jordanian officials, for responsible officials in the field of border protection and border control in the context of monitoring and preventing trafficking of nuclear material, as well as to react in case of an incident in an appropriate and professional manner, serving both as a security measure and a confidence building measure. By ensuring the exit and entry points are equipped with proper devices detect to radioactive material as well as assess the level of enrichment in such material.

160. For the purpose of extending the global non-proliferation regime, the NPT RevCon recommends cooperation between technically advanced States Parties and developing States Parties to implement modern border security initiatives modeled after the United States-Mongolia cooperation. Developed States Parties should partner with developing States Parties to identify borders where trafficking in nuclear and radiological materials occurs, especially in train, cars, planes, and ports, and provide financial and scientific assistance in installing up-to-date radiation detection technology at critical border crossings. After a suitable period of training, the infrastructure and its continued use could gradually become the responsibility of the developing States Parties.

161. The NPT RevCon implores all States parties to join the PSI and commit to the interdict transfers to and from States Parties and non-State actors to ensure that nuclear material remains utilized for peaceful purposes. NPT RevCon encourages for the further expansion of procedures to facilitate exchange of information with other countries; strengthen national legal authorities to facilitate interdiction; and take significant actions in support of interdiction efforts.

162. The NPT RevCon encourages the international guidelines for nuclear material transportation to be similarly modeled after the guidelines set forth by the United States 123 Agreement. The NPT RevCon recommends that the IAEA consider this model and monitor it to ensure all States Parties are satisfied with the incorporation of this best practice and that it is a multilateral effort between the further implementation of these guidelines, the IAEA, and State Parties. The guidelines include full-scope and strict application of IAEA Safeguards to any material or facilities proposed to be exported as well as material or facilities previously exported and also including that exported materials cannot be used for creating nuclear explosive device or for research for a nuclear explosive device. NPT RevCon recommends these recipient States have the adequate physical security on nuclear material or facilities and the State is prohibited from retransferring material, technologies, facilities or equipment, the recipient State is prohibited from reprocessing or altering any transferred material.

163. Through establishing a working relationship with the UNDP Office for South-South Cooperation (OSSC) and the IAEA, the NPT RevCon requests for the creation and strengthening of existing technological capacities to ensure developing States can effectively absorb and adapt to meet the needs of the international community in regards to transportation security infrastructure in order to address the security concerns related to transportation of developing States more productively through encouraging technical cooperation between States Parties. This can be achieved through a partnership of the IAEA Department of Technical Cooperation and the UNDP's OSSC, similar to that of the UN Food and Agriculture Organization and IAEA Joint Technical Cooperation Program.

E. The Peaceful Uses of Nuclear Energy: Fostering Sustainable Development

164. The NPT RevCon encourages increased cooperation between the IAEA and Member States in order to foster sustainable development through increased involvement in the peaceful uses of nuclear energy and the benefits that are derived from the knowledge of the applications of the affiliated technology. This could be done through increased developing country involvement with the IAEA TC Programme, the Technical Cooperation Board and the regional organizations that are under it in order to ensure a multilateral approach on all levels. This should expand the scope of the IAEA for including developing states and different outlooks. The IAEA should

look towards increasing partnerships with more developing countries that had previously not had access or relations with the IAEA or to the benefits the IAEA provides.

165. The NPT RevCon recommends regional organizations work with the IAEA and other relevant UN bodies and organizations in developing regional frameworks for utilizing nuclear energy based on already existing regional frameworks such as the European Union Atomic Energy Community, the Asian Nuclear Safety Network, the African Commission on Nuclear Energy and the Department of Technical Cooperation Latin America. This should create a foundation for regions collaborating on nuclear technology in a safe, effective, and standardized manner that cooperates with the specific needs and desires of each nation and region. This should further create consistency and standardization of nuclear energy and technology utilization in the international community through facilitating technical cooperation and promoting best practices in the peaceful development of nuclear energy and technology on an inter-regional level.

166. The NPT RevCon endorses the sharing of nuclear energy knowledge, materials, and equipment such as those necessary for light water reactors of developed states to developing states that adhere to Comprehensive Safeguard Agreements to allow developing countries to have access to more efficient forms of energy. The transfer of nuclear material specifically should be monitored by the IAEA, the Zangger Committee and the Nuclear Suppliers Group in order to prevent this material from being accessed by non-state actors and these groups should include more States in order to monitor all transfers to all States Parties that plan to utilize nuclear energy. This monitoring should not however go against the sovereignty of States Parties. The NPT RevCon emphasizes that access and implementation of nuclear energy for peaceful use should open a gateway for developing nations to utilize nuclear technology.

167. Because States Parties to the NPT understand the possibility for abuse of nuclear energy by non-state actors, States Parties stress the need to establish a more sophisticated process for reviewing peace resolutions and initiatives so that nuclear energy can be used for positive technological advancement instead of detrimental purposes.

168. The NPT RevCon recommends the expansion of the IAEA TC Programme through the establishment of the "International Institute for the Peaceful use of Nuclear Energy." The Institute should serve as a think tank to generate ideas and region specific publications related to fostering sustainable development through the peaceful use of nuclear energy. This should contribute to strengthening the training of national experts from developing countries and reinforce assistance to developing countries' access to technical cooperation through information sharing, knowledge transfer and capacity building. The Conference recommends that the Institute cooperates closely with regional agencies such as the Arab Atomic Energy Agency.

169. The States Parties propose the creation of a "Technical Empowerment Fund" (TEF) within the framework of the IAEA's TC Programme, financed voluntarily by existing public-private partnerships and developed countries. The TEF should prioritize the provision of financial support to developing nations and developing regions. Public-private initiatives geared towards research and investment in the development of nuclear energy capabilities should empower developing regions, reducing their dependency on other regions. The TEF should also leverage part of the funding and all of the risk associated with such investments, encouraging private actor investment in advancing technical cooperation in underdeveloped regions.

170. In association with Nuclear Knowledge Management under the IAEA and in cooperation with universities, host countries should hold annual international and regional conferences to share nuclear technological knowledge and develop new uses of nuclear energy for peaceful purposes while expanding on the work of the International Framework for Nuclear Energy Cooperation. This should provide opportunities for nuclear scientists to create a network and share ideas in a safe and productive environment.

    a. The NPT RevCon addresses all topics relevant to the three pillars upon which the treaty was established, the International Nuclear Research Conference and Regional Nuclear Research Conferences should concentrate solely on the advancement of the technical cooperation on nuclear research. The frequency of these conferences should allow a greater opportunity for the successful implementation of solutions regarding nuclear energy.

b. Member States should, on a voluntary basis, send academics and researchers in the disciplines of Science, Technology, Engineering, and Mathematics that specialize in nuclear energy to the conferences. To give Member States an incentive for transparency and ensure that technology is developed safely, only Member States working towards compliance with the IAEA could send researchers and technocrats to the conferences. Universities with a desire to attract academics and create knowledge should bid for the annual international and regional conferences on a geographic rotational basis, using the established geographic regions in the UN. Thus, they should contribute funding and provide locations for the conferences.

c. Each conference should focus on a number of specific nuclear energy related topics including hazardous waste management, agriculture, water purification, and creating nuclear energy sources for the least developed and developing countries to satisfy their rapidly increasing energy needs. Thus, nuclear energy could accelerate economic growth and ultimately increase the welfare of Member States. At the end of each conference, an outcome document should be created, summarizing the findings of the conference. These outcome documents should be sent to research ministries in participating Member States to spread knowledge.

171. The NPT RevCon encourages States Parties to pursue IAEA-coordinated research projects (CRPs) similar to the ones conducted from 1998-2003, to assess the cost and feasibility of integrating desalination technology with nuclear reactors. Nuclear desalination technology utilizes the wasted heat from nuclear power reactors to filter and condense water. Linking desalination facilities to nuclear power plants is a convenient and sustainable way to address water security concerns in the world's driest developing regions. Furthermore, the use of nuclear energy plants to enhance desalination technology has proven long-term economic benefits compared to other methods of desalination. The NPT RevCon should advise States Parties to make use of the IAEA's Desalination Economic Evaluation Program (DEEP) to assess the economic factors of a given nuclear facility. The Conference encourages States Parties to undertake IAEA CRPs to assess the cost and feasibility of integrating desalination technology with nuclear reactors regionally,

a. The NPT RevCon recommends that States Parties make use of the IAEA's DEEP, software that assesses the economic factors of a given nuclear facility and desalination plant cogeneration proposal.

b. The NPT RevCon further encourages States Parties to pursue CRPs at the regional level as outlined in Article 43 of the Final Document of the 2010 NPT RevCon, and to follow the framework outlined in the 1998-2003 IAEA Nuclear Desalination CRP that included China, India, Canada, Republic of Korea, Morocco, and Tunisia.

F. Advancing Information Sharing, Education, and Multilateral Cooperation to Facilitate Technical Development

172. The NPT RevCon recommends the implementation of the prioritized organizational tier system by the IAEA for the purpose of prioritizing the sharing of documents relating to nuclear technology and security, such as: Tier 1: IAEA Regional Organizations, State Governments, Tier 2: Academic and Appropriate Nuclear Professionals and Tier 3: General Public and Media. The Conference infers, by using the tier system presented above, information sharing between Tier 1 and Tier 2 could encourage the development of regional sharing networks and cooperation mechanisms.

173. The NPT RevCon affirms the statement by former Deputy Director General of the IAEA, Matthew Bunn's suggestion that the IAEA provide stricter rules, regulations and safeguards against the sale and transport of fissile material, information and technology in order to promote a level of basic scientific sharing of information and technology, combined with the insurance of progressing strictly peaceful agendas. These rules include, but are not limited to:

a. Repetition of research; to foster the deployment of advanced energy technologies, Member States must first be a member in good standing of the IAEA.

b. Multilateral cooperative activity among member states to exchange nuclear technology research and personnel to promote growth in research and encourage a symbiotic relationship that stresses mutual benefit, equality and reciprocity.

174. The Conference supports the role of regional nuclear energy and information sharing networks (RNETISN) such as the African Network for Education in Science and Technology (AFRA-NEST), the Asian Network for Education in Nuclear Technology (ANENT), and the Latin American Network for Education in Nuclear Technology (LANENT) in the spread of those technologies and information for Lesser Developed Countries (LDCs).

175. The IAEA should hold symposiums that broaden the scope of the preexisting symposiums, by educating parties to the IAEA Additional Protocols, on how to use nuclear energy safely without causing radioactive hazards, external dangers, natural disasters, and other risks that are usually associated with the use of nuclear energy. Such symposiums would focus on both prevention and focused instruction on preventing and containing nuclear disasters.

176. The NPT RevCon calls upon all member states to broaden Joint Training Programs, at the international level with organizations such as IAEA, on a multilateral basis as well as regional level, but also in bilateral cooperation. These programs would ensure adequate CBRN (Chemical, Biological, Radiological, and Nuclear) training in order to facilitate the efficient and safe reaction, to potential reactor meltdowns. This training of new staff should occur for a six month period in order to ensure complete understanding. The progress of these programs could be supervised by the IAEA through regular reporting of the member states.

177. The NPT RevCon urges convening of a multilateral International Review Board and Coordinating Council (IRBCC) comprised of experts from the IAEA, NEA, OECD, ANSN to facilitate the transfer and sharing of technology.

178. Acknowledging the importance of stimulating regional cooperation with the goal of fostering understanding, collaboration, and confidence-building in a specific region and beyond, the NPT RevCon encourages the enhancement of the support given towards The Regional Centre for Peace and Disarmament in Asia and the Pacific (Kathmandu, Nepal), together with the Regional Centers in Africa (Lomé, Togo) and Latin America and the Caribbean (Lima, Peru). The NPT RevCon is convinced that by providing a higher level of support to these centers, advancements in technical support, information and knowledge sharing, and assistance among regions may be achieved.

179. The NPT RevCon believes an expansion of RNETISNs to more State Parties could play a key role in allowing nuclear energy technologies and knowledge to spread to those most in need of the nuclear technologies. Furthermore, the Conference recommends IAEA TC Programme to work with RNETISNs so as to tailor aid programs best met for regional needs across the developing world, whether they be the most basic of needs in the LDCs or the more technical demands of a well-developed nuclear energy program.

180. The NPT RevCon also seeks to establish educational initiatives in regional and sub-regional bodies in order to improve nuclear energy capacity and emphasize nuclear safety guidelines in developing Member States with the knowledge and capacity of regional neighbors and developed states around the world, allowing ideas and technologies to flow between tiers unimpeded.

181. The NPT RevCon also recommends Higher Education grants to undeveloped nations for the purpose of establishing populations of Native Nuclear Specialist and Technicians, thereby allowing further independence for developing states towards the peaceful use of nuclear energy in order to:

a. Allow each state to develop its own nuclear infrastructure and capabilities, thus reducing their reliance on international community for nuclear technology and expertise.

b. Allow for the possibility of new advancements in nuclear technology as developing states independently fund and invest in their own program’s research and development

182. The NPT RevCon recommends, in an effort to incentivize regional cooperation and transparency and that the IAEA be empowered to decide when a member-state is ready for nuclear capability, based on the following criteria: Standing with the IAEA and NPT, Regional Stability and Cooperation, State compliance to international law and Filing Regular Reports. The Conference believes that at such a time when the IAEA determines that these criteria are met, international organizations with the endorsement of the Security Council would be allowed to begin the process of diffusing nuclear technology in a safe and effective manner.

183. The NPT RevCon recommends the addition of Universal Access to Peaceful and Safe Nuclear Energy to the post-2015 development agenda in order to increase efforts and cooperation to reach this goal by 2030.

184. The IAEA Design Safety Reviews incorporate international regulation through IAEA safety inspection while still cooperating with the internal atomic energy bodies responsible for each Member States' safe use of nuclear energy. Therefore, the NPT RevCon reaffirms that the NPT fosters the development of peaceful use of nuclear energy and a cooperative effort between the IAEA and the internal regulatory bodies of each Member States ensures an overall element of transparency between all involved parties.

185. The NPT RevCon recommends the use of voluntary contributions by States Parties in an attempt to incentivize adherence of the Design Safety Reviews. If the Member State is complying with the reviews according to the IAEA, the conference recommends that money is allocated to help further develop and promote safe and sustainable nuclear practices.

186. The encouragement of decentralization into cooperation between two bodies is recommended by this committee in order to ensure the individual goals of the states are listened to and abided by. The NPT RevCon recommends that more Member States adopt inclusionary policies that allow the IAEA to directly cooperate with state atomic energy agencies to prevent complete regulation to be controlled by the IAEA.

187. The NPT RevCon recognizes that a public information database such as the GNSSN has legitimacy for the promotion of an international database comprising of public information sharing and resource data towards the maintenance of information and the status of all nuclear related materials. Through publicly accessible information systems, national and international confidence building practices can be established.

188. Beyond the transparency created with GNSSN, a further multilateral information and technology sharing center should be accessible to all States Parties, monitored and regulated by the IAEA:

    a. To provide research aid for smaller nations without nuclear energy capabilities.

    b. To share information as well as scientists in an advisory role as an aid to further advance research

    c. Establish Nuclear Materials Accountancy Reporting (NMAR) e-business system to advance electronic capabilities, also to act as a body to centrally collect all research and data

    d. Which must have safeguards. Access to the database should be revoked under extenuating circumstances to be decided by the IAEA in a further meeting.

189. The NPT RevCon implores the IAEA to provide access to a secure database to all approved NPT members in good standing who have ratified the additional protocol and been approved by an IAEA selection committee under recommendation of the NPT, which is to be recommended by the NPT based on application process. The purpose of this is to promote the concept of universality, which would be targeted to encourage the creation of a platform for international dialogue whose main objective should be to determine a universal understanding of nuclear technological movements and developments.

190. Recognizing the potentially beneficial effects of sharing peaceful nuclear technology, this body advocates for increased sharing of information. It is recommended that this be done through programs of exchanging scientists and nuclear technicians. Also of great importance to the transfer of information is the process of education of nuclear technicians. Therefore, it is recommended that Member States develop nuclear education facilities, such as Ghana's School of Nuclear and Allied Sciences (SNAS) and their National Nuclear Research

Institute (NNRI).

191. The NPT RevCon recommends regional organizations such as the EURATOM and the RCPDAP, which are looking forward to approach the issue of increasing public awareness from the following three perspectives: information about the advantages of having peaceful nuclear programs; the disadvantages and dangers related to production of such nuclear energy; and clarification of the advantages and disadvantages of such nuclear programs among the developed States Parties that are operating such programs.

192. The NPT RevCon recommends that the IAEA establish the Education in Nuclear Development (END) training programs to train local nationals and staff living in developing countries in both technical security, and sustainable and ecofriendly technologies. To this end the NPT RevCon encourages the development of a comprehensive framework and guideline manual that can outline the educational materials necessary to the success of the END program. Educational materials should reflect the guidelines and principles established by the IAEA for the International Nuclear Security Education Network (INSEN). The END program would further expand the educational capacity and scope of the INSEN.

193. In the interest of innovation and integration of nuclear technology into the infrastructure of developing and developed countries, the NPT RevCon strongly advocates the END program to promote international and domestic corporate awareness regarding green nuclear energy through the provision of subject matter experts (SME's). The SME's should directly oversee and advise the instruction regarding the possibilities of nuclear technology and should inform businesses of the socio-economic benefits of pursuing nuclear energy on a global scale. This program could be the boost to national economies provided by acceptance of nuclear energy.

194. The NPT RevCon further encourages the expansion of civil society and private sector initiatives conditional upon the involved state that contribute to nuclear education at both the level of the general population and also in relation to professionals in the nuclear sector. To this effect the NPT RevCon recommends that the World Nuclear Program (WNP) partnership be expanded to intake a greater number of individuals, and prioritize the placement of promising individuals from countries developing their nuclear capacities. The NPT RevCon further recommends that all relevant entities contribute to the funding of such initiatives. This framework should aim to include education and should utilize media to reach the coverage across multiple layers of society. To facilitate this, the NPT RevCon recommends that the IAEA's TC Programme cycle insert a new educational program structure called "Provision for Education" into their programs funded for the purpose of education regarding nuclear development.

G. Crisis Management: Prevention and Response

195. The NPT RevCon strives toward the extended promotion and advancement of nuclear energy as a primary alternative energy source. The NPT RevCon suggests advancement in the peaceful uses of nuclear energy, and wishes to pursue the implementation of critical steps to ensure the safety and longevity of nuclear power plants.

196. The NPT RevCon calls on States Parties with land-operated nuclear facilities to ratify the 1986 Convention on Early Warning and Notification and Notification of a Nuclear Accident, as a means to ensure public safety levels are upheld to international standards.

197. The NPT RevCon supports further actions by the IAEA taken to avoid any future risk of radiological contamination to all populations surrounding nuclear facilities, damages to the environment in the event of a nuclear disaster resulting from unintentional malfunction or natural disaster, and the potential for an intentional strike against a peaceful nuclear energy facility in accordance with paragraph 75 of the Final Document of the 2010 NPT RevCon.

198. The NPT RevCon recommends the continued development of the IAEA Action Plan on Nuclear Safety and encourages States Parties to take advantage of the program as it promotes safety, security, on-site testing, and review of safety systems at reactor sites both in regional subgroups and on an international level. The NPT RevCon further recommends the continued advancement of their larger scale deployment of early warning systems, detection devices, and monitoring capabilities for potential tsunamis, hurricanes, and earthquakes in order to mitigate the damage of future natural disasters. The NPT RevCon recommends the IAEA establish

more specific and stringent policies regarding the safe selection of geographical locations for nuclear facilities, particularly for countries and regions that are prone to natural disasters.

199. The NPT RevCon strongly recommends a broadening of the mission and capabilities currently at the disposal of UN Disaster Assessment and Coordination (UNDAC) to include the implementation of rapid deployment and natural disaster reparations and emergency response capabilities specifically aimed at handling emergency situations related to the technical cooperation of nuclear energy. The NPT RevCon strongly suggests reforming the existing IAEA emergency response system, IES, and the IAEA IEC by expanding its capacity through the Nuclear-Disaster Assessment and Response Force (N-DART) which should consist of personnel from States Parties to the NPT and improve the existing IES and IEC structures in order to enhance response times and improve the effectiveness of deployment teams globally.

200. N-DARTs should include a Preliminary Response Team (PRT), tasked with being prepared, knowledgeable, and first on site for a nuclear crisis worldwide, to precede the arrival of emergency response units. The PRT should operate under N-DART and the IAEA; however, should include certain levels of autonomy in order to respond to disasters quickly and efficiently without infringing upon state sovereignty. PRTs would respond immediately to catastrophes, mitigating long term effects, while larger N-DART support teams would coordinate regionally to ensure the most effective outcomes, working with existing IAEA bodies such as UNDAC and other relevant organs. The NPT RevCon suggests IAEA review their focus on implementing regional and national training in nuclear newcomer countries, and rather focus also on those countries having a history of nuclear activity. The NPT RevCon suggests that there be more regional support networks around the world to deal with disasters. As it stands now there are only two regional support networks with locations in Toronto and Tokyo, and The NPT RevCon suggests the implementation of additional regional support networks to include Eastern and Western Europe, Asia, Latin America, and Africa to best provide a truly global reach and response.

201. The NPT RevCon additionally suggests the expansion the IAEA International Nuclear and Radiological Event Scale (INES) by administering a comprehensive international rating system (N-DART Rating) which could apply specifically to the current state of international and regional nuclear emergency preparedness with regards to facilities peacefully using, or attempting to use, nuclear energy. While the IAEA's IES rating focuses on assessment of potential emergency consequences and prognosis of possible emergency progression, the N-DART Rating system could inform surrounding states in the region which facilities are up to current IAEA safety and security code, giving confidence and incentive to states to receive high safety level ratings.

202. The NPT RevCon furthermore asks for the continued use of the IAEA's Incident and Trafficking Database (ITDB) to compile existing reports on nuclear incidents so as to allow States Parties access to these reports to enable them to effectively establish their own regulatory framework to prepare for nuclear incidents, which specifically are related to transportation. The ITDB proposes itself as an essential component of technical cooperation, with specific regards to uphold the IAEA Nuclear Security Plan, which in return promotes security of the transportation of nuclear materials.

203. The body recommends placing responsibility for coordinating potential N-DART actions with a command and control extension of N-DART (N-DART Main), which should operate under the supervision of the IES. The body also recommends that N-DART collaborate closely with existing expertise-exchange platforms including those under the framework of the IEC such as the Unified System for Information Exchange on Incidents and Emergencies (USIE).

204. The NPT RevCon advises N-DART access, membership, training, and deployment be accessible to States Parties to the NPT dependent on the acceptance of and cooperation with the upgraded safety and security mandates provided through the IAEA.

205. The NPT RevCon recommends the enhancement of IAEA training center facilities, which are part of the IAEA Technical Program, for nuclear power plant personnel, scientists and security officers to give N-DART forces the opportunity to provide comprehensive nuclear disaster and response training while emphasizing regional frameworks, bearing in mind the importance of state sovereignty. The NPT RevCon further suggests enhancement of the IEC training programs and organizing training courses and workshops facilitated through

N-DART to provide specialized nuclear disaster-related education and contrast IAEA education plans for pre-disaster nuclear handling and safety, to States Parties to the treaty in order to enhance international capabilities in disaster responses and prevention, and wish to provide support in the form of equipment and upgraded infrastructure for disaster response and containment operations.

206. The NPT RevCon affirms that States Parties to the NPT unwilling to accept, upgrade, and adapt to the higher safety and security standards provided through the IAEA should not be afforded access to N-DART membership, benefits, and capabilities. The NPT RevCon emphasizes that benefits of N-DART would be provided in exchange for maintaining strict adherence to NPT and IAEA mandates and regulations for safety and security of their nuclear power plants and further cooperating in nuclear disaster prevention and response.

207. The NPT RevCon further recommends a reformation of the existing IAEA's Regional Safeguard Offices plan, as the NPT RevCon believes a true regional response is necessary in order to address a disaster and requires more than two offices to respond quickly to a catastrophic event. The NPT RevCon further recommends already designated IAEA state-level Contact Points be given all information regarding best response practices, in spirit of the 2012 IAEA International Experts Meeting on Enhancing Transparency and Communication Effectiveness in the Event of a Nuclear or Radiological Disaster. The NPT RevCon recommends that N-DARTs be clustered around specific regional zones with the highest nuclear reactor concentration in areas such as North America, Western and Eastern Europe, also Asia; as well, in areas considered more underdeveloped and therefore, more at risk, including the regional zones of Latin America and Africa. The aim of these regional blocks is specifically to ensure that disasters in zones with the highest concentration of nuclear facilities, and therefore risk of disaster, can be resolved quickly.

208. The NPT RevCon further suggests N-DARTs main objectives be the assessment of nuclear crisis situations, containing damage, analyzing the most efficient method of advance, and ensuring the safety of the local population using updated information and resources previously unavailable to EPRUs. N-DARTs primary objective should be the containment of hazardous materials and proposing means by which to restore the area to its normal state, simplifying and broadening its mandate.

209. The NPT RevCon understands the importance of States Parties ability to report on significant nuclear incidents during transportation of those nuclear materials. With the ever changing international community, the NPT RevCon should focus on the establishment of a reporting mechanism through the IAEA, such as the International Emergency Preparedness and Response Framework (EPR) aligned with N-DART, which works with States Parties to maintain the preparedness to respond to emergencies and the mitigate the effects caused by this accident. Therefore, the NPT RevCon urges for the establishment of a reporting mechanism on nuclear incidents within the EPR.

210. The NPT RevCon proposes that N-DART would accomplish its objective by preventing disaster when able by providing, for example, security for nuclear material convoys during international transport as a new level of security provisions. N-DART, specializing in immediate nuclear disaster response, should also assist in crisis aftermath actions, which includes coordinating and consulting medical, environmental, and regional experts to best assist the local population in returning to their original state and to address individuals who may have been affected by the residual effects of a nuclear crisis, working with UNDAC and existing IAEA bodies focusing on incident aftermath reparations in lieu of the previous EPRUs.

211. The NPT RevCon recommends additional protocols, and requests States Parties to consider providing more funds for Emergency Preparedness and Response Units (EPRU's), to fall under the responsibility of the newly reexamined N-DARTs, encompassing and enhancing current ERNET Field Teams including: notifying, in a method to replace the problematic fax system, the UN in addition to regional governments in order to expedite and facilitate the potential deployment of additional support to the affected region. Also by, participating in regular multilateral simulations with volunteer States in order to maintain preparedness of personnel, to act as a confidence building measure between neighboring States Parties willing to participate, to enhance the legitimacy and scope of the IAEA and the N-DARTs, and to allow States Parties a regulated environment from which to develop independently, but with the oversight of the IAEA, potential regulations to mitigate possible crisis scenarios.

212. The NPT RevCon calls on States Parties to cooperate with Nuclear Disaster Standard Operating Procedures and post assessment and coordination, with intentions of streamlining and expediting post disaster action taken by N-DART Regional Disaster Coordinators. The order of these actions could be decided upon on a case-by-case basis, determined by threat analysis and the deployment of task forces. Deployment of forces should be determined by level of threat, location, and threat to nearby populations. The aim of N-DART is to ensure that adequate levels of trained professionals are at all times available to respond to nuclear disasters, to establishment command posts and safety zones by PRT, to facilitate the division of disaster area into sections: High Risk, Medium Risk, Low Risk, and Possible Fallout or Contamination. N-DARTs further aim for the containment of nuclear materials, as defined by IAEA standards for nuclear containment. Furthermore, the security of personnel and civilians such as: evacuation, creation of long term safety zones, consistent alert messaging to inform IAEA and Heads of States of updates from command zone, post crisis assessment, recommendations, and monitoring by IAEA Transparency.

213. The NPT RevCon suggests that N-DART be tasked with handling these issues: nuclear spills, reactor core breaches, improper use of nuclear facilities creating a potential threat, illegal seizures or attempted seizures of nuclear facilities by untrained personnel, and unsafe operation.

214. The NPT RevCon recommends all states, not just parties to the NPT, create nuclear disaster contingency plans that work with N-DARTs, UNDAC and other relevant IAEA sub-organs to ensure that jurisdiction and sovereignty are not infringed upon during N-DART initiatives.

215. The NPT RevCon emphasizes that N-DART, as an IAEA sub-organ, should respect all UN Security Council resolutions and the UN Charter concerning state sovereignty, and further suggests N-DARTs seek to work cooperatively with local emergency operations, and enhance the safety of the state populations.

216. The NPT RevCon strongly encourages other States Parties to adopt technologies which enhance or establish radiation detection at key border crossings to detect nuclear and radiological radiation coming from vehicles, pedestrians, and railroad cars in order to prevent the trafficking of uranium across national borders. Additionally, it recommends increased technical support for an innovative approach to address waterway transport, and training of the host governments to gain the ability to operate the radioactive detection equipment in an adequate manner.