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XIX Regular Session of the General Conference  
Agenda Item 12  
Santiago, Chile, 7-8 November, 2005.

## **USE OF NUCLEAR ENERGY FOR PEACEFUL PURPOSES**

### **MEMORANDUM OF THE SECRETARY GENERAL**

1. The General Conference of OPANAL at each of its Regular Sessions and some of its Special Sessions has expressed interest in this subject and approved a large number of resolutions on the matter.
2. The X Special Session of the General Conference held on 5 December 1995, approved Resolution CG/E/Res.339 rev. establishing a "voluntary ad-hoc Working Group to examine and propose to the Council recommendations for strengthening OPANAL."
3. The XII Special Session of the General Conference held on 14 November 1997 approved Resolution 368 (E-XII), which in operative paragraph 1, subparagraph b) reads: "To instruct the Council and the Secretariat, in reference to actions that require making amendments to the Treaty of Tlatelolco, to conduct a study of the following points proposed by the ad-hoc Working Group and include them as permanent items on the agenda until they are definitively settled..." 2. To take note that the nuclear explosions for peaceful purposes sanctioned in Article 18 of the Treaty of Tlatelolco should be viewed in terms of the process of consolidating the international legal regime of the Comprehensive Test Ban Treaty (CTBT). 3. To stipulate that the Council study and analyze these topics prudently, without this causing unnecessary delays in their treatment. 4. To instruct the Council of the Agency to communicate the results of their deliberations on these important topics to the other States Parties in a prompt manner and subsequently submit them to the next Regular Session of the General Conference of OPANAL."
4. On 20 May 1998, the Secretary General received the following proposal from the Observer Delegation of Mexico:

"As regards the actions requiring the amending of the Treaty of Tlatelolco and in conformity with the powers that said instrument confers upon him, let the Secretary General prepare a work program that includes a possible schedule of activities for the Council on the following subjects: Transportation and storage of radioactive material in the zone of application; Prevention of the contamination of the marine environment; Harmful effects and waste from radioactive sources, materials, and technologies; Control of the fission and/or fissile material; Security of existing nuclear facilities in the zone of application."

5. At several regular sessions of the Council. The matter was included for discussion by the Delegations of the Council's Member States and Observers. The Delegations of Argentina, Brazil, Colombia, and Mexico sent numerous documents, which were presented at the XVI Regular Session held in Lima in 1999.
6. In note EM-0302 of 1 March 1999, the Embassy of the Republic of Colombia expressed its position regarding the aforementioned subjects:

"Cooperation and Exchange Agreements with other International Organizations. Among the international organizations included in this item, cooperation and information exchange with the States Parties of the other nuclear-weapon-free zones is particularly important, regardless of how they work to reach the same objectives of non-proliferation of nuclear weapons and nuclear disarmament, which guide the Treaty of Tlatelolco."
7. The Secretary General also received note 5010/99 of 10 June 1999 from the Embassy of the Argentine Republic as well as a note with the same content in Portuguese from the Embassy of the Federative Republic of Brazil, both of which accompanied a Joint Memorandum listing the points that could be included in a consensus program of actions toward strengthening the political role of OPANAL. Among others, the following points were included:

"Argentina and Brazil were members of the Ad-Hoc Group established pursuant to Resolution CG/E/Res.339, of 5 December 1995. The report prepared by said group was used as a basis for Resolution CG/E/Res.368, which listed a series of ideas and actions, about which Argentina and Brazil consider it appropriate to make the following comments: Cooperation with other regional agencies, like ABACC. Argentina and Brazil have a common nuclear policy, ABACC being the clearest expression of it. Within this framework, both delegations do not object to the Agency maintaining contact with ABACC regarding those items that are strictly related to the letter of the Treaty of Tlatelolco. In this regard, it is wise to point out that the specific area of responsibility of the Brazilian-Argentine Agency in question is the application of the Common System for Accounting and Control of Nuclear Materials and, as established in note 1, paragraph 5.d of the Ad-Hoc Group's report, both delegations consider that technical cooperation in the peaceful use of nuclear energy surpasses the mandate of the Treaty of Tlatelolco. Given that OPANAL is basically a political organization, both delegations are of the opinion that special care must be taken to ensure that the possible external contributions do not compromise the Agency's autonomy."
8. In addition, the Ambassadors of the Argentine Republic and the Federative Republic of Brazil sent note Num. 095-5024/2001, of 22 November 2001, as "a complement to the Joint Document from the Delegations of Brazil and Argentina circulated as Doc. S/Inf.749."

9. Other countries expressed their opinion, like the Government of Antigua and Barbuda in a note dated 20 July 2000, which reads:

“The Government of Antigua and Barbuda has no desire, wish nor intention of becoming involved in the use of nuclear energy. My country thinks that the dangers excessively exceed any benefits that can be accrued thereof, and watches with intensity, concern and alarm, the existing usage in our hemisphere.”

10. The Embassy of the Republic of Peru in Mexico expressed on 7 August 2000 that:

“Having consulted with the corresponding technical agency--the Peruvian Institute of Nuclear Energy (IPEN)--, the IPEN indicated the need that the OPANAL Member States adopt action programs aimed at strengthening the role of the Agency as an instrument for coordinating our governments' efforts at the regional level to achieve a greater use of nuclear energy in areas important for sustained development. To that end, the IPEN points out, a framework for cooperation should be drawn up for the medium term including the participation of national agencies responsible for promoting the use of nuclear energy.”

11. The Government of the Republic of Trinidad and Tobago in a note dated 14 August 2000, said:

“The Government of the Republic of Trinidad and Tobago is mindful of its obligations under the Treaty of Tlatelolco not to acquire or possess nuclear weapons, nor to permit the storage or deployment of nuclear weapons in its territory by other countries. The Ministry also wishes to reiterate that the Government of the Republic of Trinidad and Tobago is committed to any measure, which seeks to ensure that Latin America and the Caribbean remain a nuclear-weapon free zone. Trinidad and Tobago views Resolution CG/Res.386 on the “Use of Nuclear Energy for peaceful purposes”, as an important issue that has implications for the future activities of OPANAL and hereby affirms its full support of the Resolution.”

12. The Embassy of the Republic of Bolivia sent its opinion in note E.B.MX211-01 of 16 August 2001, indicating:

“1. There is a mechanism already in place supported by the International Atomic Energy Agency (IAEA); 2. There is a regional agreement, ARCAL, in which 19 countries of the region that use nuclear technology for peaceful purposes participate; 3. OPANAL is an organization that has limited powers and also fulfills specific tasks related to nuclear weapons. Therefore, the Government of Bolivia considers unnecessary the expansion of OPANAL's activities, powers, and authority, otherwise it could interfere with the activities of ARCAL and the aid offered by the IAEA.”

13. The Embassy of the Oriental Republic of Uruguay in note E.15/001-259 of 8 November 2001, sent its opinion regarding the matter to the Secretariat:

“The following comments should be made from an exclusively technical standpoint to help understand the subject because it has become common practice to use the terms “nuclear energy”: or “atomic energy” to refer to very different technologies. Those already established can be grouped into three different categories: a) Applications of isotopic tracers and industrial, agricultural, environmental, medical, and hydrological radiation, etc. b) Applications of the nuclear fission process in reactors for research and electricity generation at power plants or on ships. c) The application of the nuclear fission or fusion process for explosives (atomic bombs and related devices). The first category is obviously beyond the scope of OPANAL and does not appear to warrant any additional comment. The second category involves the design, construction, operation and decommissioning of nuclear fission reactors and may be linked to the third given the possible use of nuclear reactors for the production of the fuels necessary to build a nuclear bomb.

Nevertheless, two clarifications are in order. First, the nuclear fission reactors are not, in principle, absolutely necessary for producing a nuclear bomb, given the existence of various other alternatives that do not require the use of a reactor (for example, the use of laser light). Second, nuclear explosives can be used as weapons (their military application was what led to their development), but in principle, they may also be used for peaceful purposes. This is still true in spite of the radioactive contamination that their use causes has led to the search for alternatives to using nuclear explosives in this manner. The use of nuclear fission reactors to provide energy for warship propulsion is no different than the use of this type of reactor in nuclear power plants. Nuclear reactors have been used in propulsion systems of merchant marine ships and in some icebreakers. Therefore, the possible interaction between the peaceful and military uses of nuclear energy is intricate indeed. It is also important to note that in principle a nuclear explosive device may use optical, centrifugal or other techniques not directly related to nuclear fission reactors. In a world in which exchanges of all types have increased between countries and regions, the problems created by the movement of technical knowledge, equipment, and materials that can be directly or indirectly linked with the building of nuclear bombs acquire much greater relevance than they had when the Treaty of Tlatelolco and its corresponding Amendments were drafted. This is an important item for analysis and discussion. Another is the maintaining of the conditions that made the Treaty of Tlatelolco possible: the legal and political traditions common to a large part of the countries of Latin America, the relative scarcity of serious conflict between countries, the practice of solidarity and cooperation among them, and the apparent fact that to date no nuclear weapons have been produced in the region since the explosion of the first nuclear bomb. It would therefore appear that greater efforts must be made to maintain these favorable conditions that have made transparency in the region possible as regards the control of the military applications of nuclear energy.”

14. The Secretary General sent to the Member States Resolution CG/Res. 415, approved on 29 November 2001, during the XVII General Conference held in Panama and received the following responses. In note 121/1 of September 2002, the Embassy of Jamaica sent to the Secretary General its response to Resolution 386 (XVI), which states:

“Jamaica does not possess, manufacture or use nuclear weapons or other nuclear explosive devices. Jamaica supports the concept of the use of nuclear energy for peaceful purposes and as such recognizes the right of States under Article IV the NPT to develop, research, produce and use nuclear energy for peaceful purposes as well as the exchange of information, equipment and material for peaceful purposes. As a symbol of our commitment to and support for the use of energy for peaceful purposes, Jamaica signed the Treaty on the Non-Proliferation of Nuclear Weapons (NTP) of 1968, an IAEA Safeguards Agreement on 5 March 1970. In addition, Jamaica has also to conclude the Protocol Additional to the Safeguards Agreement between Jamaica and the International Atomic Energy Agency, for the Application of Safeguards in connection with the Treaty on the Non Proliferation of Nuclear Weapons (and the Tlatelolco Treaty).”

15. The Embassy of the Republic of Ecuador sent note Num. 4-3-23/2003 of May 2003 containing activities undertaken and the following recommendations:

“The following steps are necessary: Guarantee the sustainability of the future projects by strengthening the link between the national development plan and the government's funding commitments; Advance and support the Radiological Control Programs covering the country's needs in this area; Increase the training of personnel in the fields of medical physics, nuclear medicine, the calibration of equipment, and quality assurance for dosimetry services, as well as control policies; Define a national waste policy and conduct an inventory of all sources thereof, which requires the design and construction of an adequate storage facility, in addition to the necessary human and financial resources; Support radiological protection and the improvement of infrastructure networks to diminish the risk of exposure to patients in work areas and the protection of the community from exposure to radiation; Strengthen the regulatory structure by providing

human resources and appropriate materials that guarantee the appropriate and safe use of nuclear energy and radiation in the country, in order to respond in an effective and independent way to priority needs; Arrange, in addition to the aid received from the IAEA, other aid from other international organizations that have been present on previous occasions such as the WHO, UNDP, OAS, FAO and other similarly disposed organizations and countries; To encourage within the CEEA the creation of a group of experts on different atomic energy matters to advise the country on the advisability of introducing certain nuclear technologies; Give the CEEA sufficient authority and ability to implement basic safety standards, especially as regards the supervision and control of radiation, following accepted international standards, so it is in a position to address matters of preparation and reaction to radiological emergencies in order to protect the population and the environment in the event of a radioactive accident.”

16. In July 2003, the Embassy of the Republic of Guatemala sent the Secretary General a copy of note VM-129-2033 from the Minister of Mines and Energy which reads:

“The Ministry of Energy and Mines, through the General Directorate of Radiological Energy, is responsible on behalf of the Government for controlling, supervising and establishing the minimum safety conditions that should be applied to all peaceful activities that use radioactive substances and ionizing sources. It is also responsible for research, advancement, and development of all peaceful applications of nuclear energy within the country's borders. It also acts as a liaison with international organizations and is the national counterpart for all technical cooperation activities with the International Atomic Energy Agency (IAEA). Through the peaceful use of nuclear energy, Guatemala has made significant progress in different areas of production and human well-being. Guatemala became an IAEA Member State in 1957 and technical cooperation activities began in 1958. In addition, Guatemala has been a party to the Regional Cooperative Agreement for the Advancement of Nuclear Science and Technology in Latin America and the Caribbean (ARCAL) since 1989. In this regard, the Government of the Republic of Guatemala firmly supports the peaceful applications of nuclear energy, including them in its national development plans, particularly to strengthen our capabilities, carrying out all those activities that aid in eliminating poverty and especially promote rural development.” (s)

17. In August 2003, the Embassy of the Republic of El Salvador sent note Num. EES/SRM/041/03 which contains a report on activities performed and in the last paragraph states:

"Also, it is important to point out that El Salvador has been a supporter and a faithful adherent to the regulations established in the Treaty of Tlatelolco and has taken full advantage of the benefits derived from the peaceful use of nuclear energy through technical cooperation provided by the International Atomic Energy Agency. Nevertheless, bearing in mind that El Salvador is a developing country, international cooperation in the area of nuclear energy needs to increase, particularly through the procurement of equipment and technology, as well as the corresponding technical training in different areas, especially as regards adequate regulatory infrastructure for controlling nuclear energy so that its use and advancement take place within a regulatory framework with measures in place to protect and guarantee the physical and radiological safety of the system."

18. The XVIII Regular Session of the General Conference in Havana, Cuba, approved Resolution CG/Res.443, which in operative paragraph 1 reads: “To reiterate the appeal to all the States Parties to the Treaty of Tlatelolco to notify the Secretary General of their official position regarding the issue of the Use of Nuclear Energy for Peaceful Purposes, so that, together with the Council, they can continue with their study attempting to attain the necessary consensus.”

19. During the proceedings of the aforementioned Conference, the Representative of the Republic of Cuba, President of the Nuclear and Advanced Technology Agency, Ms. Angelina Díaz García said:

“Cuba recognizes the important role that nuclear technologies play in sustainable development, especially for developing countries and confirms that their use has had a palpable impact on the priority development programs of our country. In the Latin American and Caribbean context, there has been a constant exchange of knowledge, technologies, and experience in the area of Human Health, Agriculture, Industry, and Environment. These joint efforts have taken place under the aegis of the Regional Cooperative Agreement for the Advancement of Nuclear Science and Technology in Latin America and the Caribbean (ARCAL). Fundamentally based on horizontal technical and economic cooperation, incorporating the capabilities of the different member countries to promote the use of nuclear and related techniques, as well as their peaceful applications, ARCAL, sponsored mainly by the International Atomic Energy Agency, whose activities are based on three fundamental pillars: technology, safety, and verification, has developed into an appropriate framework for occasional meetings and discussions among Latin American and Caribbean nuclear professionals, as well as an efficient mechanism for assessing, approving, implementing and controlling projects of regional interest that include the peaceful use of nuclear energy. In the current stage of work, where the fundamental commitment of this agreement is to substantially increase the economic and social impact of the results obtained for Latin America and the Caribbean, for the purpose of making their activities self-sustainable, it is imperative to include all regional integration efforts that promote the peaceful use of nuclear energy. The Treaty of Tlatelolco establishes in its text the commitment of the parties to use exclusively for peaceful purposes the nuclear material and facilities which are under their jurisdiction while endorsing the rights of the Contracting Parties to peacefully use nuclear energy for economic development and social progress. Bearing in mind the later stage of integrating the nuclear activities in the region and the important political role that the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean can play in advancing the use of nuclear energy for peaceful purposes commensurate with the commitments of the Parties to the Treaty of Tlatelolco, our country favors the conducting of a study to reach a consensus regarding this subject within the framework of OPANAL, as indicated in Resolution 415 of the General Conference.”

20. The Secretary General received note MRE/DM/JI/651/06/05, of 25 July 2005, from the Ministry of Foreign Relations of the Republic of Nicaragua which reads:

“The National Energy Commission of the Republic of Nicaragua has not considered in the Energy Policy of Nicaragua or in its energy planning the use of nuclear energy for electrical power generation. We consider our country to have sufficient local energy resources such as water, geothermal, wind, and biomass to cover our energy demands in the coming years. In addition, it is the opinion of this Commission that nuclear energy could present serious environmental problems that our country would not be in a position to manage.”

21. In conclusion, 16 responses have been received to the notes prepared by the Secretary General in fulfillment of the General Conference resolutions: Antigua and Barbuda, Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, El Salvador, Guatemala, Jamaica, Mexico, Nicaragua, Peru, Trinidad and Tobago, and Uruguay.
22. The Secretary General considers the final decision adopted regarding this matter of vital importance for the Agency's future. Once consolidated, the military denuclearization of the region

affords new opportunities for OPANAL's activities to continue within the spirit and letter of the Treaty of Tlatelolco, whose drafters clearly perceived when stating in the Treaty's preamble that Latin America should not only strive to prohibit nuclear weapons, but also "strive to promote the well-being and advancement of their peoples" as well as honor Article 1 of the Treaty, which commits the Parties to "use exclusively for peaceful purposes the nuclear material and facilities which are under their jurisdiction."

23. For these reasons, the Secretary General requests that this General Conference reach a definitive decision on how the Council should address this matter.