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Moscow, Russia) WEWE ALEGN

Moscow Nuclear Summit: final document.

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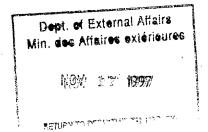
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Attached, for your records, are copies of the Moscow Summit Communiqe, Moscow Summit Background Documents, Prime Minister's public statement on MOX at the scrum after the Summit, and the Declaration of the NGO Forum.

Allan Culham
Director
Energy and Nuclear Affairs



# CANDU PLUTONIUM MOX FUEL PROJECT

"...both Russia and the USA have to dismantle their nuclear weapons and have to dispose of the plutonium. What is worrying, is that it could still be used in unwanted or undesirable ways. The best solution is to destroy it by transforming it into MOX fuel. But if we are to use it, we should make sure that we do it safely. CANDU is the reactor that could use it the most efficient and safest way. We should assume our responsibility. Nuclear energy is a non-polluting source of energy compared to other sources. In Canada we have been involved for a long time in nuclear energy and never had any problem. I am not a specialist, but I understand that our system is better than any other."

Prime Minister Jean Chretien

At the press conference following the Nuclear Safety and Security Summit in Moscow on April 20, 1996 after stressing the decision on disposition of surplus weapons-grade materials as one of the Summit's achievements.

# Moscow Nuclear Safety and Security Summit Declaration

- 1. The end of the cold war and the political and economic reforms in Russia have opened a new era in our relationship and have provided the international community with real possibilities for cooperation in the fields of nuclear safety and security. The Moscow meeting is an important step in the realization of these objectives. We are determined, at this summit and beyond, to work together to ensure the safety of nuclear power and to promote greater security for nuclear materials.
- 2. We are committed to give an absolute priority to safety in the use of nuclear energy. As we approach the tenth anniversary of the Chernobyl accident, it is our shared objective that such a catastrophe cannot reoccur.

We are ready to cooperate among ourselves so that the use of nuclear energy is conducted all over the world consistently with fundamental principles of nuclear safety. Further, we are committed to measures which will enable nuclear power, already a significant contributor to electricity supply in those countries choosing to exploit it, to continue in the next century to play an important role in meeting future world energy demand consistent with the goal of sustainable development agreed at the Rio Conference in 1992.

We recognize the importance of openness and transparency to obtain public trust which is a key factor for the use of nuclear energy.

3. The security of all nuclear material is an essential part of the responsible and peaceful use of nuclear energy. In particular, the safe management of fissile material, including material resulting from the dismantling of nuclear weapons, is imperative, not least as a safeguard against any risk of illicit trafficking in nuclear materials.

4. In the spirit of the decisions adopted during the New-Lork Conference of May 1995 on review and extension of the Non Proliferation Treaty (NPT), including the Decision on principles and objectives for nuclear non-proliferation and disarmament, we will increase our cooperation in the field of nuclear non-proliferation and disarmament i.a. by promoting universal adherence to the NPT, working vigorously to strengthen the Internatioal Atomic Energy Agency (IAEA) safeguards system and through effective and responsible export control measures. We are issuing a separate statement on CTBT. We renew our commitment to the immediate commencement and early conclusion of negotiations on a non-discriminatory and universally applicable convention banning the production of fissile material for nuclear weapons or other nuclear explosive devices.

# Nuclear Safety

5. Recognizing that the prime responsibility for nuclear safety rests with national governments, it is of the first importance to continue to enhance international collaborative efforts to promote a high level of nuclear safety worldwide.

# Safety of Civilian Nuclear Reactors

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- 6. Nuclear safety has to prevail over all other considerations. We reaffirm our commitment to the highest internationally recognized safety level for the siting, design, construction, operation and regulation of nuclear power installations.
- 7. The promotion of an effective nuclear safety culture in each country with nuclear installations is essential to that end.
- 8. Sustainable nuclear safety also requires a supportive economic and legal environment whereby both operators and national regulatory bodies can fully assume their independent responsibilities.
- 9. Nuclear safety can also be enhanced by greater international transparency in nuclear power activities, in particular by means of peer reviews, and this should lead to existing reactors which do not meet current

safety requirements being brought to an acceptable level of safety or ceasing operation.

- 10. The adoption of the Convention on Nuclear Safety, which reaffirms these fundamental safety principles, is a major accomplishment in this field. We urge all countries to sign this Convention and to complete internal procedures to join so that the Convention can be brought into force expeditiously certainly before the end of 1996.
- 11. National efforts have been made in the countries of Central and Eastern Europe and the Newly Independent States to improve nuclear safety levels, often in cooperation with multilateral and bilateral programmes. In this regard, we acknowledge these important efforts to upgrade reactor safety and improve safety culture, but note that further substantial progress is still required. We reaffirm our commitment to cooperate fully for this purpose.

# Nuclear Liability

- 12. An effective nuclear liability regime must assure adequate compensation to victims of, and for damage caused by, nuclear accidents. In addition, to secure the degree of private sector involvement needed to undertake vital safety improvements, the regime should at the same time protect industrial suppliers from unwarranted legal action.
- 13. The essential principles in this area are the exclusive and strict liability of the operator of the nuclear installations and ensuring needed financial security for adequate compensation.
- 14. It is essential that countries with nuclear installations that have not yet done so establish an effective regime for liability for nuclear damage corresponding to these principles.
- 15. It is important to work together on enhancing the international regime of liability for nuclear damage with a view to ensuring that it will attract wide adherence and accommodate any state which may wish to become a party. We encourage the experts to make further progress to this end. In this connection, the reinforcement of regional cooperation is welcomed.

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# Energy Sector Strategies in transition countries

- 16. Efficient market-oriented strategies for energy sector reform are essential to promote nuclear safety. This will generate adequate resources for investment in safety upgrades and maintenance, and encourage energy conservation. All countries in transition should pursue such market-oriented reforms and investment strategies based upon least cost planning, giving due regard to nuclear safety and environmental criteria, and to energy efficiency and conservation.
- 17. The International Financial Institutions have played a leading role in developing market-oriented energy sector reforms and investment plans. Their continued involvement and support is critical to ensure further progress.

# Nuclear waste Management

### International Convention

- 18. National authorities must ensure radioactive waste is managed safely and that provisions are made for its proper handling, storage and ultimate disposal. These are essential elements for any nuclear energy programme.
- 19. The development of the Convention on the Safety of Radioactive Waste Management, based on these principles, is of paramount importance. We call on all countries generating nuclear waste with nuclear installations to participate actively in the preparation of this Convention under the auspices of the I.A.E.A. and to encourage its effective finalisation and prompt adoption.

# Ocean Dumping

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20. We commit ourselves to ban dumping at sea of radioactive waste and encourage all states to adhere at the earliest possible date to the 1993 amendment of the London Convention.

# **Nuclear Material Security**

# Programme on Preventing and Combatting illicit Trafficking in Nuclear Material.

21. Illicit trafficking of nuclear material is a public safety and non-proliferation concern. We recognized the importance of this issue at our meetings in Naples and Halifax. As risks continue to exist, we have agreed on, and released, a programme on preventing and combatting illicit trafficking in nuclear material to ensure increased cooperation among our governments in all aspects of prevention, detection, exchange of information, investigation and prosecution in cases of illicit nuclear trafficking.

We call on other governments to join us in implementing this programme.

# Nuclear Material Control, Accountancy and Physical Protection.

- 22. We reaffirm the fundamental responsibility of nations to ensure the security of all nuclear materials in their possession and the need to ensure that they are subject to effective systems of nuclear material accounting and control and physical protection. These systems should include regulations, licensing and inspections. We express our support for the I.A.E.A. safeguards regime, which plays a critical role in providing assurance against the diversion of nuclear material going undetected. We underline the need for the urgent strengthening of I.A.E.A. capabilities to detect undeclared nuclear activities. We note that these measures are also conducive to preventing illicit trafficking of nuclear material.
- 23. We recognize the importance of continually improving systems and technologies for controlling and protecting nuclear materials. We urge nations to cooperate bilaterally, multilaterally and through the I.A.E.A. to ensure that the national systems for controlling nuclear materials remain effective. We are encouraged by the wide array of cooperative projects underway in this field

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under bilateral and multilateral auspices and pledge to sustain and increase these efforts.

- 24. We urge ratification by all states of the Convention on the Physical Protection of Nuclear Material and encourage the application of the I.A.E.A. recommendations on the Physical Protection of Nuclear Material.
- 25. We pledge our support for efforts to ensure that all sensitive nuclear material (separated plutonium and highly enriched uranium) designated as not intended for use for meeting defence requirements is safely stored, protected and placed under I.A.E.A. safeguards (in the Nuclear Weapon States, under the relevant voluntary offer I.A.E.A.-safeguards agreements) as soon as it is practicable to do so.

# Safe and effective Management of weapons fissile material designated as no longer required for defence purposes.

- 26. Major steps have been taken in recent years towards nuclear disarmament. This has created substantial stocks of fissile material designated as no longer required for defence purposes. It is vital, as mentioned above, that these stockpiles are safely managed and eventually transformed into spent fuel or other forms equally unusable for nuclear weapons and disposed of safely and permanently.
- 27. The primary responsibility for the safe management of weapons fissile material rests with the nuclear weapons states themselves, but other states and international organizations are welcome to assist where desired.
- 28. We welcome the steps that the United States and the Russian Federation have taken to blend highly-enriched uranium (HEU) from dismantled nuclear weapons to low-enriched uranium (LEU) for peaceful non-explosive purposes, and the cooperation programs of Canada, France, Germany, Italy, Japan, the United Kingdom, the United States of America and other states with the Russian Federation for the safe storage, the peaceful uses of fissile material released by the dismantlement of nuclear weapons, and their safe and secure transportation for that purpose; we encourage other efforts along these lines.

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- 29. We are determined to identify appropriate strategies for the management of fissile material designated as no longer required for defence purposes. Options include safe and secure long-term storage, vitrification or other methods of permanent disposal, and conversion into mixed-oxide fuel (MOX) for use in nuclear reactors. We have agreed to share relevant experience and expertise to elaborate and implement these strategies. We welcome plans to conduct small-scale technology demonstrations related to these options, including the possibility of establishing pilot projects and plants. We shall convene an international meeting of experts in order to examine available options and identify possible development of international cooperation in the implementation of these national strategies, bearing in mind technical, economic, non-proliferation, environmental and other relevant considerations. The meeting will take place in France by the end of 1996.
- 30. We recognize the importance of ensuring transparency in the management of highly enriched uranium and plutonium designated as no longer required for defence purposes.

A background document on "Nuclear Safety", "Nuclear Material Control, Accountancy and Physical Protection" and "Safe and effective management of weapons fissile material designated as no longer required for defence purposes" is being released separately.

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# MOSCOW SUMMIT ON NUCLEAR SAFETY AND SECURITY

# BACKGROUND DOCUMENTS ON NUCLEAR SAFETY AND SECURITY

# PROGRAMME FOR PREVENTING AND COMBATTING ILLICIT TRAFFICKING IN NUCLEAR MATERIAL

Illicit trafficking in nuclear material continues to pose a global proliferation risk and a potential danger to public health and safety. We have recognized the importance of this issue at our meetings in Naples and Halifax. The criminal diversion of nuclear material could assist states or terrorist groups to bypass the carefully crafted controls of the international nuclear non-proliferation regime and permit them to construct or otherwise acquire a nuclear or radiological weapon. The majority of cases, so far, have involved only small amounts of fissile material or material of little use for weapon's purposes, and many apprehended nuclear traffickers have been swindlers or petty thieves. Nevertheless, cases of illicit nuclear trafficking continue to occur. Accordingly, we have concluded that increased cooperation among our governments to combat illicit trafficking in nuclear material will contribute to increased international security and public safety, and to achievement of global non-proliferation objectives.

International efforts to suppress illicit trafficking in nuclear material should address several fundamental aspects of the problem:

- \* safe and secure storage of nuclear material and effective material protection, control, and accounting to prevent its diversion;
- \* cooperative intelligence, customs, and law enforcement efforts to prevent the transportation and sale of diverted material.
- \* and joint efforts to identify and suppress illicit supply of, and demand for, nuclear material and to deter potential traffickers.

In addition, nuclear material released by the dismantling of nuclear weapons and no longer required for defence purposes must be safely, affordably, and effectively stored, protected and controlled, until it can be used for non-explosive purposes or safely and permanently disposed of. This material must also be placed under international safeguards as soon as it is practicable to do so.

The international community's response to these challenges should draw upon and further reinforce the existing instruments and organizations of the nuclear non-proliferation regime. These include universal adherence to the Nuclear Non-Proliferation Treaty and the

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As defined by Article XX of the Statute of the International Atomic Energy Agency.

Principles and Objectives agreed at the 1995 Nuclear Non-Proliferation Treaty Review and Extension Conference, and to the Convention on Physical Protection of Nuclear Material, as well as application of the recommendations on physical protection made by the International Atomic Energy Agency (IAEA) and the Nuclear Suppliers Group (NSG). Cooperation within the framework of the Zangger Committee and the Nuclear Suppliers Group is important in the fight against illicit trafficking.

The storage and control of nuclear material is, first and foremost, a national responsibility but the international community should support national efforts by providing coordinated assistance, where needed, to ensure that all nuclear material is safely and securely stored and accurately and effectively controlled and accounted for. Cooperative assistance involving the IAEA, the European Union, or other arrangements should be maintained and adequately funded.

In order to strengthen our collective response to illicit trafficking in nuclear material we will:

- \* regularly share and promptly disseminate, in accordance with the Convention on Physical Protection of Nuclear Material, information on nuclear theft and smuggling incidents;
- \*exchange information on significant incidents in this area, especially if sensitive material is involved, and establish appropriate national points of contact for this purpose;
- \* foster enhanced cooperation and coordination among our national intelligence, customs, and law enforcement agencies and cooperation with those other concerned countries in order to ensure prompt investigation and successful prosecution in cases of illicit nuclear trafficking;
- \* vigilantly discharge our national responsibility to ensure the effective storage, protection, control and accounting of nuclear material in our respective territories;
- \* exchange experience and advice among ourselves and make it available to others and support efforts to provide appropriate assistance to ensure safe and effective nuclear material storage, protection, control, and accounting;
- \* maintain effective national systems of export licensing and control, which are important to deter and prevent illicit trafficking, and encourage and assist other states to do the same;

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- \* support efforts to define training requirements pertaining to detection of concealed nuclear material, radiation protection, safe handling and transportation of nuclear material and radiation protection, for law enforcement agencies (customs, police) in accordance with their respective tasks and closely coordinate relevant training activities in this area.
- \* support the exchange of scientific information and data to permit the identification of the origin, history, and route of seized illicit nuclear material;
- \* support efforts to ensure that all sensitive nuclear material (separated plutonium and highly-enriched uranium) not intended for use in meeting defence requirements is safely and effectively stored and protected and placed under IAEA safeguards (in the Nuclear Weapon States, under the relevant voluntary offer IAEA-safeguards agreements ) as soon as it is practicable to do so;
- \* work to strengthen the effective application of IAEA safeguards and encourage all states to provide adequate funding for them;
- \* seek to identify strategies for the safe, effective, and affordable peaceful use of nuclear material no longer required for defence purposes or for its safe permanent disposal;
- \* encourage bilateral and other assistance and cooperation arrangements in the above areas and support their appropriate coordination to ensure that they are complementary and mutually reinforcing and to avoid needless duplication of efforts;
- \* promote universal adherence to the Nuclear Non-Proliferation Treaty which remains the fundamental basis for all international efforts to prevent the illicit spread of nuclear material, technology and expertise:
- \* contribute to the enhanced Treaty review process and implement the Principles and Objectives for Nuclear Non-Proliferation and Disarmament agreed at the 1995 Nuclear Non-Proliferation Treaty Review and Extension Conference; and
- \* work to promote the immediate commencement and early conclusion of negociations on a non-discriminatory and universally applicable convention banning the production of fissile material for nuclear weapons or other nuclear explosive devices.

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### NUCLEAR MATERIAL ACCOUNTING AND CONTROL AND PHYSICAL PROTECTION

At the Moscow Nuclear Safety and Security Summit, the importance of IAEA safeguards and of effective nuclear material accounting and control and physical protection in ensuring the security of nuclear material and preventing its diversion was reaffirmed. This constitutes a useful contribution to advancing the nuclear non-proliferation agenda. The work already accomplished in the area of improving nuclear material accounting and control and physical protection was stressed, further effort and cooperation where required were encouraged, and certain principles for nuclear material accounting and control and physical protection and their relation to global nuclear non-proliferation objectives reaffirmed.

# The Summit reached a common understanding on the following:

- reaffirmation of support for the I.A.E.A. safeguards regime, which plays a critical role in providing assurance against the diversion of nuclear material going undetected, for an increased capability to detect undeclared nuclear activities, and for appropriately strengthening the regime where required;
- recognition of the importance of effective nuclear material accounting and control and physical protection, of the fundamental responsibility of nations to ensure the security of all nuclear material in their possession and, to this end, of the necessity for effective national including, where appropriate for this purpose, EURATOM systems of nuclear material accounting and control and physical protection, including regulations, licensing, inspections, and state systems of accounting and control;
- the need for adherence to clearly established standards and recommendations for nuclear material accounting and control and physical protection and for nations to ensure the effectiveness of national and facility-level accounting and control and physical protection procedures in relation to these standards and recommendations.

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- urgent ratification by all States of the Convention on the Physical Protection of Nuclear Material.

To date, only 52 States and the European Community have ratified the Convention. To make the instrument truly effective, universal adherence is necessary;

- encouragement to State Parties to the Convention on the Physical Protection of Nuclear Material to ensure that Convention Points of Contact are able to provide information promptly, and that response plans are prepared for incidents of loss or recovery of nuclear material:
- reassimation of support for a strengthened and cost-effective safeguards system through the LA.E.A.'s Program 93 plus 2 and recognize the need to implement comprehensive safeguards agreements designed to provide credible assurance of the non-diversion of nuclear materials from declared activities and of the absence of undeclared activities in accordance with obligations contained in the Nuclear Non-Proliferation Treaty;
- encouragement for the application of the LA.E.A. recommendations on the Physical Protection of Nuclear Material.

These recommendations provide useful guidance on measures for the physical protection of nuclear material in use, transit, and storage. The application of these recommendations, adapted as appropriate to national circumstances, would ensure a consistent and high level of security for both nuclear facilities and nuclear materials:

- encouragement to all States to apply the recommendations concerning physical protection in the Nuclear Suppliers Guidelines (Infeire 254/Rev. 2/Part II Annex C);
- support for the efforts to ensure that all sensitive nuclear material (separated plutonium and highly enriched uranium) designated as no longer required for defence purposes is safely and effectively stored and protected and placed under I.A.E.A.-safeguards (in the Nuclear Weapon States, under the relevant voluntary offer I.A.E.A.-safeguards agreements) as soon as it is practicable to do so;
- encouragement to additional international cooperation to help ensure effective material accounting and control and physical protection of all nuclear material including:

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- international semmars to snare appropriate expertise and foster technical contact;
- bilateral exchanges involving expert collaboration in the development of systems of nuclear material accounting and control and physical protection for nuclear facilities;
- training, when requested, to assist countries to improve their procedures and expertise;
- exchanges of information to maximize the effectiveness of technical assistance and other collaborative programs and to avoid needless duplication of effort.

It welcomed the work that has already been accomplished in this field by the I.A.E.A., through bilateral assistance projects, and by the International Science and Technology Centres (ISTC) in Moscow and Kiev.

# SAFE AND EFFECTIVE MANAGEMENT OF WEAPONS FISSILE MATERIAL DESIGNATED AS NO LONGER REQUIRED FOR DEFENCE PURPOSES

As a result of disarmament measures, there are growing stocks of weapons fissile material, separated plutonium and highly enriched uranium (HEU), designated as no longer required for defence purposes. It is the national responsibility of each state possessing such material to ensure that it is kept safely guarded so that it may not become the object of criminal diversion which would be a serious threat to the international non-proliferation regime.

This fissile material should be safely, affordably, and effectively stored and handled under physical protection, accounting and control measures that meet the highest international standards and that ensure effective non-proliferation controls, until it can be transformed into spent fuel or other forms equally unusable for nuclear weapons or other nuclear explosive devices and safely and permanently disposed of

Significant effort will be required for the storage, handling, and eventual disposal of this fissile material, and each state possessing fissile material designated as no longer required for defence purposes is responsible for its management, taking into account the need to avoid contributing to the risks of nuclear proliferation; the need to protect the environment, workers and the public; the resource value of the material; and the costs and benefits involved.

In the context of the Moscow Summit on Nuclear Safety and Security, Participants wished to comment upon the importance of this issue and to address the risks associated with these growing stocks of excess weapons fissile material. At the same time, they identified possible strategies for the safe and effective management of fissile material designated as no longer required for defence purposes. They reached a common understanding on the following:

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- reaffirmation of their commitment to the Nuclear Non-Proliferation Treaty (NPT), to the Decision on Principles and Objectives for Nuclear Non-

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Proliferation and Disarmament adopted at the 1995 NPT Review and Extension Conference, especially the call for an early conclusion of negotiations on a non-disciminatory and universally applicable convention banning the production of fissile material for nuclear weapons or other nuclear explosive devices, and to the relevant nuclear disarmament agreements;

- recognition that the primary responsibility for the safe management of weapons fissile material designated as no longer required for defence purposes rests with the nuclear weapons states themselves but that other states and international organizations are welcome to assist where desired;
- support for efforts to rapidly ensure that separated plutonium and highly-enriched uranium, including that from dismantled weapons, are stored and handled under physical protection, accounting and control measures that meet the highest international standards and that ensure effective non-proliferation controls;
- the placing of fissile material designated as no longer required for defence purposes by the weapons states under IAEA-safeguards (under the relevant voluntary offer I.A.E.A.- safeguards agreements) as soon as it is practicable to do so, consistently with non-proliferation, economic, safety and environmental requirements, and that appropriate resources for safeguarding these stocks should be provided;
- the importance of the steps that the United States and the Russian Federation have taken to blend highly-enriched uranium (HEU) from dismantled nuclear weapons to low-enriched uranium (LEU) for peaceful non-explosive purposes, of the cooperation programs of Canada, France, Germany, Italy, Japan. United Kingdom, the United States and other states with the Russian Federation for the safe storage, the peaceful uses of fissile material released by the dismantlement of nuclear weapons and their safe and secure transportation for that purpose, and of other efforts along these lines;
- declaration that weapons fissile material designated as no longer required for defence purposes will never again be used for nuclear explosive purposes and that effective management of this material will aim to reduce stocks of separated phronium and highly-enriched uranium (HEU) through peaceful non-explosive use or safe and final disposal as soon as practicable; and
- recognition of the importance of increasing transparency in the management of phitonium designated as not required for defence purposes.

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On the specific question of possible options for dealing with fissile material designated as no longer required for defence purposes, including - for plutonium - safe and secure long-term storage, vitrification or other methods of permanent disposal, or conversion into mixed-oxide fuel (MOX) for use in nuclear reactors, they reached a common understanding on:

- the urgent need to identify appropriate strategies and to share relevant experience and expertise to elaborate and implement these strategies;
- their willingness to undertake small-scale technology demonstrations; and.
- the convening of an international meeting of experts to examine available options and possible development of international cooperation in the implementation of these national strategies. Such a meeting should take place by the end of 1996.

Criteria for selecting appropriate national strategies for managing fissile material designated as no longer required for defence purposes, including safe and secure long-term storage, vitrification or other methods of permanent disposal, or conversion into mixed-oxide fuel (MOX) for use in nuclear reactors, were identified as:

- \* reduction of the risk of proliferation of nuclear weapons or other nuclear explosive devices:
- \* effective transformation of the material into spent fuel or other forms equally unusable for nuclear weapons or other nuclear explosive devices;
- \* speed with which stockpiles of fissile material designated as no longer required for defence

purposes are reduced;

- \* safety, physical protection, environmental protection; and
- \* other costs and benefits involved.

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# Moscow Nuclear Safety and Security Summit

## Nuclear Safety

Peaceful and safe uses of nuclear energy will be important for the international community as it approaches the next century, when energy consumption is likely to grow sharply. Use of nuclear energy and ensuring its safety are two sides of the same coin. Countries using nuclear energy must put "safety first"

This document provides some background information under each of the items "Safety of Civilian Reactors" and "Nuclear Waste Management" for the Moscow Nuclear Safety and Security Summit. These two issues encompass:

- Principles of nuclear safety, including support for early entry into force of the Convention on Nuclear Safety.
- Progress on establishing effective regimes on liability for nuclear damage in all countries with nuclear facilities.
- . The importance of energy sector strategies in supporting nuclear safety.
- Encouragement of the ngociations on the Convention on the Safety of Radioactive Waste Management.
- Commitments on Ocean-Dumping.

## Safety of Civilian Nuclear Reactors

1) Principles of nuclear safety, including support for early entry into force of the Convention on Nuclear Safety

Although essentially a national responsibility, in light of the consequences of a major nuclear disaster, all states have a legitimate concern that nuclear power is managed safely everywhere. Over the years, an expanding international infrastructure and international consensus focused on nuclear safety has developed. It is based on an array of binding legal instruments, internationally recognized safety principles, expert review and advisory services and international assistance. This includes an obligation to bring existing reactors that do not meet today's safety requirements to an acceptable level of safety or cease operation.

A general understanding has developed that nuclear safety is the prime responsibility of nuclear operators within a legally binding national regulatory framework operating independently with adequate technical support. The operator and the regulator can only exercise their responsibilities in an appropriate economic and legal environment where they have access to a stable source of revenue. (See energy sector strategies below.)

The G-7 strategy to help improve nuclear safety of the Soviet-designed reactors of Central and Eastern Europe countries and the Newly Independent States was developed at the Munich Summit in 1992 and was complemented by decisions taken at subsequent Summits. There have been a number of initiatives undertaken since then for nuclear safety improvements and for the strengthening of regulatory regimes. These include the establishment of the Nuclear Safety Account managed by the EBRD, the G-24 coordinating mechanism, the European Union PHARE and TACIS programmes, the Euratom loan facility, coordinated support from the international financial institutions for energy sector reform, and bilateral cooperation projects. In addition, the countries of Central and Eastern Europe and the Newly Independent States have taken actions themselves to improve safety and strengthen their regulatory bodies.

The Moscow Nuclear Summit highlights progress to date and reinforces the importance of partnership among the participants of the Summit in addressing safety concerns.

A major accomplishment in the nuclear safety area was the adoption in June 1994 of the Convention on Nuclear Safety. As of March 1996, it has been signed by 62 countries and ratified or accepted by sixteen, twelve of which have nuclear installations. Ratification by twenty-two States — seventeen with nuclear installations—is necessary for entry into force.

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The Nuclear Safety Convention codifies fundamental safety principles concerning the regulation, management and operation of nuclear installations and the obligation to establish and maintain a legislative and regulatory framework. An important feature of the Convention is the obligation to submit reports for review at meetings of the Parties that are to be held on a periodic basis. This approach is based on peer review principles that aim to encourage international collaboration and transparency in the achievement and maintenance of nuclear safety.

# 2) Progress on establishing effective regimes on liability for nuclear damage in all countries with nuclear facilities

There are two international conventions establishing international norms in the area of liability for third party damages in the event of a nuclear accident. These are: the Paris Convention, parties to which are from Western Europe, and the Vienna Convention, the parties to which include nations from various parts of the world. The conventions establish that nuclear operators (not suppliers) are strictly liable for third party nuclear damages and that others are excluded from liability. They are interlinked through the joint protocol. They also require financial security of a certain amount to cover this liability. Most European nations are members of either one or the other convention. Canada, Japan. Russia, and the United States, among other countries, are not party to either convention. Canada, Japan, and the United States have effective domestic legislation concerning nuclear liability, which channels liability to the operator. Russia proceeds in the same direction and recently adopted relevant framework national legislation.

The strict and exclusive liability channelled to the operator and mandatory operator financial security are important features of international conventions and domestic legislation in this area. While the primary objective of liability regimes is to ensure the protection of potential victims of nuclear damage, without channelling of liability to the operator, suppliers and manufacturers would not contract to the nuclear industry because of the potential risks involved. Western suppliers are reluctant to enter into significant nuclear projects and safety upgrades, absent adequate protection against legal action in the event of an accident.

Recently, many countries in Eastern and Central Europe have adhered to the Vienna Convention and have consequently adopted, or are adopting, appropriate domestic legislation to channel liability to the facility operators. Russia and some other states, including Ukraine have embarked on the development of domestic nuclear liability legislation. Some Western countries and the European Commission have secured bilateral agreements to permit the necessary government-funded safety work to proceed. Further progress on the issue of liability would allow greater cooperation in safety upgrades and overall nuclear commerce between Western contractors and operators in Eastern and Central Europe and in the Newly Independent States.

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Discussions have been held for some time on the revision of the Vienna Convention and on the establishment of a global supplementary funding system. Many issues associated with the revision of the Vienna Convention have now been resolved through these discussions, but several important questions of principle are still to be addressed. As for the elaboration of a supplementary funding convention, new progress has recently been achieved. The IAEA Board of Governors has urged the IAEA Standing Committee on Nuclear Liability reviewing the Vienna Convention to intensify its efforts in order that a diplomatic conference may be convened.

The further enhancement of the global civilian liability system, including supplementary funding, is considered by many to be a worthwhile goal. The progress being made in the IAEA Standing Committee in order to develop a global regime to which any country could become a part is welcome. Such a global regime would aid the provision of victim compensation in the event of a nuclear accident causing transboundary damage as well as encourage international trade and cooperation in nuclear safety equipment and services. Such a goal will be facilitated if countries with nuclear installations have adopted appropriate domestic legislation based upon accepted international principles.

## 3) The importance of energy sector strategies in supporting nuclear safety

Effective strategies for energy sector restructuring are essential to nuclear safety. Energy sector restructuring should contain, as integral elements, provisions for pricing and tariff reform, and for prompt payment for electricity supplies. This will generate adequate cash flow for the utilities to undertake investment in safety upgrades and maintenance, as well as to encourage energy conservation. Full cost tariff polices would also mobilise domestic capital and encourage foreign direct investment. Such restructuring efforts should be seen as a comprehensive process with different initiatives proceeding in parallel, and facilitating early closure of those nuclear power plants that cannot be re-licensed. Decisions on closure should be taken in accordance with the provisions of the Convention on Nuclear Safety.

Bilateral as well as multilateral studies have reaffirmed the strong connection between power sector reform and nuclear safety. Examples include two recently completed studies, the U.S./Russian Joint Electric Power Alternatives Study and the IEA Russian Energy Sector Study, which have examined the Russian power sector and formulated a series of reform and investment recommendations. Their contribution to the development of these concepts is welcome. Among the main conclusions of the U.S./Russian Study mentioned above is the recognition that investments in nuclear power plant safety upgrading are competitive with investments in alternative energy sources and energy efficiency and that it is economic to continue the operation of existing nuclear power plants, provided that they can be re-licensed in accordance with internationally accepted safety standards.

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The International Financial Institutions have a communing role to play in supporting and promoting the implementation of effective strategies for energy sector reform. The EBRD Nuclear Safety Account Grant Agreements call for the completion of least-cost power sector plans and for safety assessments on nuclear reactors as an integral part of a licensing process. This will assist in assuring the safety of these reactors.

#### Nuclear Waste Management

1) Encouragement of the negotiations on the Convention on the Safety of Radioactive Waste Management

Radioactive waste management issues are increasingly important to the public perception of nuclear energy. The preamble to the Convention on Nuclear Safety contains an affirmation of the need to develop a convention on the safety of radioactive waste management. Following general international agreement on safety fundamentals for the safe management of radioactive waste, work began in July, 1995 on the development of the Convention on the Safety of Radioactive Waste Management. This Convention will be useful to ensure that countries properly manage their waste to avoid unacceptable risks now or in the future to both the public and the environment. Good progress on developing a text has been made.

# 2) Commitments on Ocean Dumping

The London Convention of 1972, which entered into force in 1975, establishes international norms for the disposal of waste at sea and promotes the effective control of all sources of marine pollution. It included a prohibition on sea disposal of high level radioactive waste. It currently has 74 contracting parties including all Moscow Summit participants.

The parties agreed December 12, 1993 to ban sea disposal of all radioactive wastes or other radioactive matter, including low-level radioactive wastes. (This exempts material containing de minimis levels of radioactivity, as defined by the IAEA.) Russia has not yet accepted this Amendment.

In 1993, the Russian Federation discharged low level liquid wastes into the Sea of Japan. A joint Russian, Japanese and Korean study with Agency involvement has so far detected no elevated levels of radionuclides. As technical advisor under the London Convention, the IAEA has undertaken a 4 year International Arctic Seas Assessment Project to assess the health and environmental risks and to examine possible remedial actions. There are also joint Russian/Norwegian scientific cruises to the Kara Sea. As the Russian Federation does not currently have sufficient capacity to treat low level liquid waste arising from their Nordic and Pacific nuclear fleets, the United States, Japan, the Nordic countries and the Republic of Korea are assisting through bilateral and multilateral channels in construction of waste treatment facilities.

The Russian Federation has since de facto observed the ban and stated its intention to refrain from the dumping of radioactive wastes. This position was confirmed in a statement of the Russian and American Presidents in 1994, which included Russia's intention to continue its policy of voluntary adherence to the ban on radioactive waste disposal under the London Convention and eventually to join the ban.

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We affirmed our commitment to conclude and sign a Comprehensive Nuclear Test Ban Treaty (CTBT) by September 1996. We agreed that a CTBT will be a concrete step toward the achievement of one of the highest priority objectives of the international community in the field of disarmament and non proliferation, and the fulfilment of the obligations under article VI of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). We also agreed that the CTBT must prohibit any nuclear test explosion or any other nuclear explosion. We affirmed that this constitutes a truly comprehensive nuclear test ban.

In this connection, we recalled the importance of the Decision on Principles and Objectives for Nuclear Non-Proliferation and Disarmament adopted on 11 May 1995.

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DOCS
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