



**Austria**



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**for the**

**CONVENTION ON  
NUCLEAR SAFETY**

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National Report of Austria for the Convention On Nuclear Safety

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# **National Report of AUSTRIA**

## **Convention on Nuclear Safety**

**for the Extraordinary Meeting 2012**

**April 2012**

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# INTRODUCTION

## 1. About this report

During the 5<sup>th</sup> Review Meeting of the Convention on Nuclear Safety (CNS), the Contracting Parties in attendance agreed to hold an Extraordinary Meeting of the CNS in accordance with Article 23. In addition, Item 11 of the Summary Report from the 5<sup>th</sup> Review Meeting of the CNS states:

*“The Extraordinary Meeting will be conducted as a focused review meeting. [...] Also, to support this Extraordinary Meeting, a short and concise National Report will be developed by each Contracting Party.”*

Austria’s report is structured according to the list of topics as published by the IAEA Secretariat in its role as Secretariat of the Conference. Since the input from a country without a nuclear installation in the meaning of the convention is limited, issues and topics are dealt with in a more abstract form. Nevertheless Austria addresses all lessons learned based upon national experience as well as on exchanges taking place in various regional and international fora.

## 2. Fields of activities to draw lessons post Fukushima

Austria has immediately after the accident in the Fukushima Dai-chi accident made contributions to regional and international efforts to draw lessons from the catastrophe and to review the safety of all EU nuclear plants on the basis of a comprehensive and transparent risk and safety assessment ("stress tests"). Austria also participated at the Conference organised by the French Republic at the OECD headquarters and the subsequent meeting of the Regulatory Authorities with the support of the OECD/NEA.

Likewise Austria made a number of contributions to the IAEA Ministerial Conference on Nuclear Safety at ministerial level and contributed in particular to the preparation of the IAEA Action Plan on Nuclear Safety.

In parallel, and duly reflecting results of the above mentioned international and regional meetings, Austria drew its own lessons which have been reflected in Conclusions of the Austrian Council of Ministers and in various positions expressed by other national bodies.

## **Topic 1 (External Events)**

### **Seismic, flooding and extreme weather conditions**

The events in relation to the Tohoku earthquake and the subsequent Tsunami in March 2011 in Japan have practically demonstrated the vulnerability of nuclear power plants related to multi-hazard events in the geophysical and meteorological area. Although earthquakes and tsunami events are not unusual in this area in time frames comparable with the typical operating times of nuclear power stations (0.4 centuries), two Nuclear Power Plants experienced specific problems, namely Fukushima Daiichi (6 reactors) and Onagawa (3 reactors).

The Fukushima accident puts in question all previous work regarding site evaluations of nuclear installations and related questions on risks due to natural events. After Fukushima, all safety standards and hazard assessments in the meteorological and geophysical domain need to be thoroughly revised, updated and existing installations need to undergo related stress tests.

The experience gained with the Great East Japan Earthquake and other experiences have shown that due attention needs to be paid to combined hazards and secondary effects occurring in nature. Primary natural causes – such as earthquakes, volcanic eruptions, landslides or floods – may cause secondary effects, which can be even more disastrous than primary causes. Examples are landslides triggered by heavy rainfall or ground shaking due to earth tremors, which impound water reservoirs causing the reservoir to spill over and flood the valley.

### **Seismic events and Tsunamis**

#### **Earthquakes and surface faulting:**

The variability of ground motions associated with an earthquake is extremely large and can vary widely. Seismic design ensuring the stability of structures needs to account for the highest expected ground motion values at the site under consideration. Seismic hazard assessments for nuclear installations therefore commonly refer to ground accelerations with very low occurrence probabilities (mostly  $10^{-4}$  per year). Reliable and conservative hazard assessments for such low occurrence probabilities require data on very rare events with recurrence periods in the order of ten thousands of years. Such data need to be obtained from integrating both seismological and paleoseismological/geological data capable of analysing very long time histories.

Geological and seismological methods for seismic hazard definition are rapidly developing. Periodic re-assessments of site-specific hazard levels constitute therefore particularly strong safety features to account for advances in science and technology and for new data. Faults which displace the surface must be subjected to rather large earthquakes of magnitudes  $M > 6$ , unless their focal depth is shallow. In mining environments, surface displacements can also occur at much smaller earthquake magnitude (say  $M > 3,5$ ), provided the depth of mining is shallow ( $< 2000$  m).

#### **Water waves induced by earthquakes or other geological phenomena**

Tsunamis can be generated by both earthquakes and landslides. They inundate large areas, given the topography is smooth. For the very same seismic events large variations of tsunami

heights could be observed as results of the shape of the coast line. These aggregating effects can be modelled today. The determination of tsunami hazards faces similar challenges like seismic hazard assessment as analyses need to consider very rare events with recurrence intervals, which are much longer than historical observation periods. Current scientific efforts therefore focus on the identification of paleo-tsunamis with geological methods to assess the frequency and maximum wave heights of extreme events, which occurred thousands or ten thousands of years before.

#### **Floods and waves caused by failure of water control structures:**

This is rather seldom the case, as dams are usually designed to sustain large horizontal loads. Several cases are reported in the recent past, however, where dam structures suffered heavy damage. Usually problems are experienced with earth fill dams due to an overspill of the structure, leading to erosion of dam slope and subsequent failure.

#### **Geotechnical hazards (Slope instability, Collapse, subsidence or uplift of the site surface, Soil liquefaction:**

Slope instability can be understood as primary hazard or as secondary hazard as result of intense rainfall. The resulting rock mass movement may act as the source of an additional hazard. In addition, local tsunamis can also be initiated by submarine landslides at the adjacent coast, and volcanic eruptions below ice shields lead to glacial outburst floods affecting whole provinces. These and other secondary effects (fire due to exploding storage facilities at its consequences) should therefore be given consideration.

Experience has shown that it appears necessary to pay attention to secondary effects in nature. Primary natural causes – such as earthquakes, volcanic eruptions, landslides or floods – may cause secondary effects, which can be even more disastrous.

#### **Weather-related events**

Regarding weather, events to be considered are (i) extreme values of certain meteorological parameters (wind, precipitation, snow, temperature, and storm surges), (ii) rare events (lightning, tornados and tropical cyclones) and (iii) floods due to precipitation.

In this area the following recommendations are made:

- The IAEA safety standards dealing with the respective events are about 10 years old and require comprehensive revision
- For all hydro-meteorological hazards, a holistic approach needs to be developed. Related secondary and, if relevant, tertiary hazards need to be looked at. Secondary events do not need to be hydro-meteorological or geophysical, but could also be in the areas of transport, energy supply, health or other central socio-economic parameters
- One of the lessons learned from Fukushima is that the return period of extreme events is important. For a nuclear installation a 30-year statistical return period for extreme events is much too short

#### **Site characteristics**

- The important site characteristics for nuclear installation include (i) atmospheric dispersion of radioactive material, (ii) dispersion in water of radioactive material, (iii)

dispersion of material through ground water and (iv) the population distribution in the vicinity of the site.

In this area the following recommendations are made:

- The IAEA safety standard document dealing with the site characteristics is about 10 years old, partly outdated and requires comprehensive revision
- It is important to develop a clear understanding of typical dispersion and flow patterns around the nuclear installation under consideration, and to mark areas potentially most affected by routine or accidental air releases, depending on the hour of the day and the season
- In a holistic approach, it is even more important to consider the likelihood of population centres being affected after a release by typical flow patterns. This is also important in the planning phase of a nuclear installation.
- One of the lessons learned from Fukushima was that under accident conditions, the atmospheric dispersion, but in particular the dispersion in sea and ground water of radioactive effluents, poses a major problem and is not readily known
- From the radiological viewpoint, the most important area of concern for the general public is the immediate vicinity of the nuclear installation, ranging from the gate to a distance of about 100 km. This area is typically not covered by mesoscale dispersion models. Therefore, a local modelling capability is needed.
- To provide input data for local modelling, basic weather and atmospheric turbulence monitoring, including vertical profile measurements, is needed around nuclear installations, configured in a way that systems can handle the loss of external power supply
- These observations need to be integrated into a retrospective as well as real-time Mesoscale Weather Analysis (RTMA) around the installation, and the RTMA needs to be coupled with an atmospheric dispersion model
- In case that a power station is located at the sea shore, off-shore measurement points of radioactive dose rates need to be established, to cover a situation where the air flow transports the effluents away from the land-based monitoring posts

## **Topic 2 (Design Issues) and Topic 3 (Severe Accident Management and Recovery )**

Austria has in the framework of the Meeting of EU Environment Ministers already on March 14, 2011 taken the initiative that the safety of all EU nuclear plants should be reviewed on the basis of a comprehensive and transparent risk and safety assessment ("stress tests"). For this purpose, the European Nuclear Safety Regulatory Group (ENSREG) and the Commission

have been invited to develop the scope and modalities of these tests in a coordinated framework based upon lessons learned from the accident in Japan and with the full involvement of all EU Member States. This approach made it possible to make, full use of available expertise (notably from the Western European Nuclear Regulators Association) so that the assessments are conducted by independent national authorities and through peer review; and that their outcome and any necessary subsequent measures to be taken would be shared with the European Commission and within the ENSREG and be made public. This would ensure that the highest standards for nuclear safety would be implemented and continuously improved in the EU framework and also promoted in the larger international framework; and that priority would be attached to the fact that safety of nuclear plants cannot stop at EU borders and the EU thus request that similar "stress tests" be carried out in the neighbouring countries and worldwide, regarding both existing and planned plants. Such comprehensive approach has of course to involve relevant international organisations, above all the IAEA.

The EU stress tests for NPP's cover all design issues under this topic.

Austria comprehensively contributed to the implementation process of "stress tests" for NPP's in the EU, which is a unique and first of a kind process, the outcome of which will be assessed by EU heads of states and governments mid-2012.

Austria has also advocated that the process is conducted in a transparent way with participation of the general public and other stakeholders as applicable.

#### **Topic 4 (National organisations; Regulator, TSO, Operator, Government)**

Austria did not change national organisational tools or responsibilities after the Fukushima accident. However some basic equipment within the regulatory authority has been improved. A lesson learned by a small administration was that long-lasting alert status by the regulatory authority, the decision making bodies within the government and the TSO's proves difficult to handle. A more coordinated approach involving regional and international organisations should be developed in order to cover alert situations over a three to four weeks period. In Europe most countries made their own risk assessment and came to very similar conclusions regarding the radiological situation in Europe. Also accident development monitoring was done separately in all countries with similar monitoring results, whereby here again coordinated approach could support national organisations.

#### **Topic 5 (Emergency Preparedness and Response and Post-accident management)**

Article 36, 37 and 38 of the Austrian Radiation Protection Act set forth the general principles concerning interventions, radiation monitoring and counter measures to be taken in the case of a radiological emergency.

The radiation monitoring and counter measure principles do, however, not cover recommendations for Austrian citizens in other parts of the world potentially affected by a nuclear accident. Together with regional and international organisations such recommendation principles should be developed to extend the protection to ex-patriots.

Inter alia, regulations regarding the following areas of radiological emergency management are provided:

- definition of intervention levels and a checklist of countermeasures to be taken into account in different phases of an emergency which provides the basis for a specific catalogue of counter measures in Austria,
- criteria for updating emergency plans at federal and at provincial level,
- regulations for education, training, individual dosimetric monitoring and medical surveillance of intervention teams,
- criteria for planning and conducting emergency exercises.

In accordance with the legislation, the responsibilities for off-site emergency management for events in Austria or abroad are summarised in the following table:

Institution	Responsibilities
Federal Ministry of Agriculture and Forestry, Environment and Water Management	<ul style="list-style-type: none"> <li>• Evaluation of the consequences of radiological and nuclear emergencies</li> <li>• Decision on countermeasures (with involvement of the Federal Ministry of Health)</li> <li>• Environmental monitoring</li> <li>• Competent Authority for international information exchange (ECURIE, Convention on Early Notification and bilateral agreements)</li> </ul>
Federal Ministry of Health	<ul style="list-style-type: none"> <li>• Food monitoring</li> <li>• Pre-distribution of KI-blocking</li> </ul>
National Crisis and Disaster Protection Management Federal Ministry of the Interior	<ul style="list-style-type: none"> <li>• National co-ordinating institution for crisis management</li> </ul>
Federal Alarm Centre Federal Ministry of Interior	<ul style="list-style-type: none"> <li>• National information exchange centre</li> <li>• Contact Point for information exchange with foreign countries (ECURIE, Convention on Early Notification and bilateral agreements)</li> </ul>
Federal Ministry of European and international Affairs	<ul style="list-style-type: none"> <li>• Travel warnings and recommendations</li> </ul>
Nine Austrian Provinces	<ul style="list-style-type: none"> <li>• Implementation of countermeasures</li> </ul>

The Ordinance on Interventions in Case of Radiological Emergencies and in Case of Lasting Exposure includes a specific catalogue of counter measures in Austria and updating of federal

emergency plans in accordance with recommendations of IAEA (EPR-METHOD-2003). Reviewing and updating of emergency plans at provincial level on the basis of the new federal plans have been initiated and are under implementation. Strengthened coordination and improved harmonisation of counter measures (especially soft counter measures) is a lesson to be drawn following the Fukushima accident.

The exchange of information in case of a radiological or nuclear emergency with the competent authorities in the neighbouring countries is guaranteed by three information systems: The Convention on Early Notification of Nuclear Accidents (IAEA), the ECURIE information exchange system organised by the European Commission and bilateral agreements with the neighbouring countries operating nuclear power plants. In addition, the bilateral and regional co-operation have been extended within the last years, including an automatic exchange of information between emergency centres relevant for assessing the impact of a radiological or nuclear accident (such as dose rate measurements and source term information) and joint emergency exercises.

Austria operates the decision support system RODOS as many other countries in Europe. One lesson to be learned after Fukushima could be that for accidents in far regions seen from Europe a “European centre” could be established to conduct the work on a centralized basis to avoid duplication of work in all European States.

Different provisions have been made for informing the Austrian population in case of a radiological or nuclear emergency. In case of an emergency, urgent information for the public together with the recommendations of counter measures will be provided by the competent federal authorities. In addition, the National Crisis and Disaster Protection Management will be extended by representatives of the Austrian Broadcast Corporation and the Austrian Press Agency, if necessary. A call centre for answering questions from the public has been established. Printed guides for advance information of the public are available free of charge (also available on the internet) and will periodically be updated. According to the Ordinance on Interventions in Case of a Radiological Emergency, additional information prior and in case of a radiological emergency in accordance with the Council Directive 89/618/EURATOM will be provided on the internet ([www.strahlenschutz.gv.at](http://www.strahlenschutz.gv.at)).

Several types of emergency exercises on international, bilateral and local level help to improve the emergency preparedness system and keep the emergency personnel trained. A specific goal for the next exercises is to test the new emergency plans.

## **5.2 Radiation Monitoring Systems**

According to the Austrian Radiation Protection Act, the Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW) operates an automatic radiation monitoring system.

The Austrian Radiation Early Warning System (Strahlenfrühwarnsystem) continuously monitors ambient gamma dose rates with more than 300 measuring stations throughout the country. In addition, 10 aerosol monitoring stations have been installed near the Austrian borders. The measurement data of these automatic on-line systems are transmitted to the National Centre as well as to nine regional centres located in the region’s capitals. The on-line data of about 100 stations of this system are accessible to the general public via Internet ([www.strahlenschutz.gv.at](http://www.strahlenschutz.gv.at)) and the Austrian Broadcast (ORF) Teletext service.

Additional measuring data can be imported from mobile and air-borne radiation survey units of the Federal Ministry of the Interior and the Federal Army.

Data gathered by the Radiation Early Warning System are exchanged on-line with the corresponding systems in most of the neighbouring countries (Slovenia, Slovakia, Czech Republic, Hungary, Germany, and Switzerland) on the basis of bilateral agreements. In parallel, exchange of these data is run on European level via the EURDEP system between the EU member states.

In addition, a laboratory-based monitoring network performs a radionuclide-specific routine monitoring of air, precipitation, surface water bodies, feed- and foodstuffs.

BMLFUW is also obliged to operate adequate decision support systems (i.e. RODOS) based on meteorological forecast data. The information provided by the accident country (source term, other release parameters) is the basis for a prognosis of possible consequences.

The environmental monitoring measurement results and the results of the decision support systems provide the basis for assessing the radiological situation and recommending countermeasures. The implementation of the countermeasures lies within the responsibility of the nine Austrian Provinces.

## **Topic 6 (International Organisations)**

In Austria's opinion international institutions and organisations, non-governmental organisations, and academia will have to identify and subsequently implement clear deliverables in the very near future regarding enhanced nuclear safety, improvements in nuclear incident and accident management as well as in nuclear information policy overall.

Such additions should entail rendering IAEA safety standards binding for all contracting parties, updating safety objectives contained in the convention, introducing strict criteria in order to ensure regular independence, and considerably strengthening provisions in the Convention on Nuclear Safety pertaining to emergency preparedness as well as in the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the case of a Nuclear Accident or Radiological Emergency. In particular, the Austrian contribution in suggesting mandatory independent safety visits to NPPs should be stressed, building on the OSART experience, and by adopting respective criteria for launching such visits.

In light of the necessary improvements to the global nuclear safety framework Member States are encouraged to strengthen the role of the IAEA notably IAEA's budget dedicated to nuclear safety in order to respond to the Fukushima accident and to help prevent future accidents to be enhanced

Lessons learned from the accident in the NPP Fukushima were manifold and led to the adoption of the IAEA Action Plan in September 2011. Regarding topics such as dispersion of radionuclides, cooperation among international organisations, application of the Early Notification Convention and enhanced transparency on data and information policy and in particular the role of the IAEA Secretariat can be identified as specific lessons learned and should form the basis for further work in the future: The technical capabilities to measure and to predict the dispersion of radionuclides are very much advanced, creating the possibility for an efficient as well as effective response to mitigate adverse effects of such a disaster

It was clearly demonstrated that weather analyses and forecasts are much better than 25 years ago in direct comparison with the Chernobyl accident, and that atmospheric dispersion models are capable of offering precise predictions. The global measurement capabilities regarding

radionuclides are well advanced, data from the CTBTO International Monitoring System making a huge difference due to the high and globally homogeneous standards used. On the other hand, some critical input data for atmospheric dispersion models were not readily available, in particular radiological and meteorological data in the accident region.

One aspect to consider for further analysis and future work is the possible failure of measurement infrastructure in case that the accident is caused by a natural hazard with large-scale impact.

The cooperation of international organizations in the event of a nuclear disaster showed effective cooperation, but needs to be further strengthened. The IAEA proved its principal ability to respond in good time, and to cooperate with WMO and WHO as foreseen in the Joint Radiation Emergency Management Plan of the International Organizations. It was noted, however, that the first emergency message regarding a “General Emergency” through the WMO global telecommunication system was issued much too late. The IAEA also entered into some form of cooperation with the CTBTO, but the effectiveness of this cooperation needs still to be looked at. Between CTBTO and WMO, there were some issues, mostly regarding the transfer of CTBTO radionuclide data to WMO Regional Specialized Meteorological Centres (RSMCs). Throughout the Fukushima emergency, the RSMCs, which are under international law in charge of providing support to the global community by atmospheric dispersion simulations, were not given general access to CTBTO data and products, nor did they receive full source term information from the IAEA. While ad-hoc arrangements regarding meteorological data support were seen as an important and valuable tool, they need to be formalised, and their scope clearly defined.

Austria would also see a strengthened role of the IAEA under the CNS as well as other international conventions as an important principle to be acknowledged and put in practice by the Conference. This pertains to the Convention on Nuclear Safety and other relevant instruments regarding nuclear safety, and should subject to availability of resources bring about strengthening of the pertinent organisational units in the Agency; promotion of ratification of legal instruments, in particular of all relevant international Conventions (“The Family of Safety Conventions”); improving the effective implementation of the Nuclear Safety Convention, among others through enhanced participation of Contracting Parties in the review process by ensuring timely submission of comprehensive national reports and their follow-up

As regards international cooperation, be it with other international organisations such as WHO, WMO, and others, be it with regional organisations or with individual IAEA or CNS Member States or others, Austria is of the firm belief that existing arrangements and agreements - as far as has not been already done – should be strengthened, in particular to allow for immediate and comprehensive dissemination of information in case of emergencies on a need-to-know basis should confidentiality provisions so require. Working arrangements could and should be tested and exercised so as to be ready in case of need be.

With regard to the relationship between the IAEA and WMO, there were some issues, mostly regarding the passing on of CTBTO radionuclide data to WMO Regional Specialized Meteorological Centres (RSMCs). Throughout the Fukushima emergency, the RSMCs, which are under international law in charge of providing support to the global community by atmospheric dispersion simulations, were not given general access to CTBTO data and products, nor did they receive full source term information from the IAEA. : While ad-hoc arrangements regarding meteorological data support were seen as an important and valuable tool, they need to be formalised, and their scope clearly defined.

# ANNEXES

Annex 1: Bilateral agreements in the field of nuclear safety and radiation protection

Annex 2: Multilateral agreements in the field of nuclear safety and radiation protection

## Annex 1

### Bilateral Agreements in the Field of Nuclear Safety and Radiation Protection

#### Belarus

Agreement on an exchange of information in the field of nuclear safety and radiation protection

(Abkommen zwischen der Regierung der Republik Österreich und der Regierung der Republik Belarus über den Austausch von Informationen aus dem Bereich der nuklearen Sicherheit und des Strahlenschutzes)

BGBI. III 175/2003 entered into force in 2005.

#### Czech Republic

Protocol between the Government of the Republic of Austria and the Government of the Czech Republic amending the Agreement between the Government of the Republic of Austria and the Government of the Czechoslovak Socialist Republic to settle Issues of Common Interest in connection with Nuclear Safety and Radiation Protection.

(Protokoll zwischen der Regierung der Republik Österreich und der Regierung der Tschechischen Republik zur Änderung des Abkommens zwischen der Regierung der Republik Österreich und der Regierung der Tschechoslowakischen Sozialistischen Republik zur Regelung von Fragen gemeinsamen Interesses im Zusammenhang mit der nuklearen Sicherheit und dem Strahlenschutz)

BGBI. III No. 71/2008, entered into force on 1<sup>st</sup> July 2008.

#### Germany

Agreement on an exchange of information and experience in the field of radiation protection

(Abkommen zwischen der Regierung der Republik Österreich und der Regierung der Bundesrepublik Deutschland über Informations- und Erfahrungsaustausch auf dem Gebiet des Strahlenschutzes)

BGBI. No. 128/1989 idF BGBI. No. 892/1994, entered into force in 1994.

Agreement on mutual assistance in the event of disasters or serious accidents

(Abkommen zwischen der Republik Österreich und der Bundesrepublik Deutschland über die gegenseitige Hilfeleistung bei Katastrophen oder schweren Unglücksfällen)

BGBI. No. 489/1992, entered into force in 1992.

## **Hungary**

Agreement on the settlement of questions of mutual interest in connection with nuclear installations

(Abkommen zwischen der Regierung der Republik Österreich und der Regierung der Ungarischen Volksrepublik zur Regelung von Fragen gemeinsamen Interesses im Zusammenhang mit kerntechnischen Anlagen)

BGBI. No. 454/1987, entered into force in 1987.

Agreement on mutual assistance in the event of disasters or serious accidents

(Abkommen zwischen der Republik Österreich und der Republik Ungarn über die gegenseitige Hilfeleistung bei Katastrophen oder schweren Unglücksfällen)

BGBI. III No. 76/1998, entered into force in 1998.

## **Liechtenstein**

Agreement on mutual assistance in the event of disasters or serious accidents

(Abkommen zwischen der Republik Österreich und dem Fürstentum Liechtenstein über die gegenseitige Hilfeleistung bei Katastrophen oder schweren Unglücksfällen)

BGBI. No. 758/1995, entered into force in 1996.

## **Poland**

Agreement on an exchange of information and co-operation in the field of nuclear safety and radiation protection

(Abkommen zwischen der Regierung der Republik Österreich und der Regierung der Republik Polen über Informationsaustausch und Zusammenarbeit auf dem Gebiet der nuklearen Sicherheit und des Strahlenschutzes)

BGBI. No. 643/1990, entered into force in 1990.

## **Russia**

Agreement between Austria and the former USSR concerning early notification and information in the case of nuclear accidents and the exchange of information related to nuclear installations

(Abkommen zwischen der Regierung der Republik Österreich und der Regierung der Union der Sozialistischen Sowjetrepubliken über die frühzeitige Benachrichtigung bei einem nuklearen Unfall und den Informationsaustausch über Kernanlagen)

BGBI. No. 130/1990 idF BGBI. No. 257/1994, entered into force in 1990.

## **Slovakia**

Agreement between Austria and Slovakia concerning questions of mutual interest in connection with nuclear safety and radiation protection

(Abkommen zwischen der Regierung der Republik Österreich und der Regierung der Slowakischen Republik zur Regelung von Fragen gemeinsamen Interesses im Zusammenhang mit der nuklearen Sicherheit und dem Strahlenschutz)

BGBI. No. 565/1990 idF BGBI. No. 1046/1994, entered into force in 1995.

Agreement on co-operation and mutual assistance in the event of disasters

(Vertrag zwischen der Republik Österreich und der Slowakischen Republik über die Zusammenarbeit und die gegenseitige Hilfeleistung bei Katastrophen)

BGBI. III No. 155/98, entered into force in 1998.

### **Slovenia**

Agreement on an early exchange of information in the case of radiological dangers and on questions of mutual interest in the field of nuclear safety and radiation protection

(Abkommen zwischen der Republik Österreich und der Republik Slowenien über den frühzeitigen Austausch von Informationen bei radiologischen Gefahren und über Fragen gemeinsamen Interesses aus dem Bereich der nuklearen Sicherheit und des Strahlenschutzes)

BGBI. III No. 176/1998, entered into force in 1998.

Agreement on co-operation in the field of prevention and mutual assistance in the event of disasters or serious accidents

(Abkommen zwischen der Regierung der Republik Österreich und der Regierung der Republik Slowenien über die Zusammenarbeit bei der Vorbeugung und gegenseitigen Hilfeleistung bei Katastrophen oder schweren Unglücksfällen)

BGBI. III No. 87/1998, entered into force in 1998.

### **Switzerland**

Agreement on an exchange of information in the field of nuclear safety and radiation protection

(Abkommen zwischen der Regierung der Republik Österreich und dem Schweizerischen Bundesrat über den frühzeitigen Austausch von Informationen aus dem Bereich der nuklearen Sicherheit und des Strahlenschutzes)

BGBI. III No. 201/2000, entered into force in 2001.

### **Tajikistan**

Agreement between Austria and the former USSR concerning early notification and information in the case of nuclear accidents and exchange of information related to nuclear installations (used with Tajikistan)

(Abkommen zwischen der Regierung der Republik Österreich und der Regierung der Union der Sozialistischen Sowjetrepubliken über die frühzeitige Benachrichtigung bei einem nuklearen Unfall und den Informationsaustausch über Kernanlagen)

BGBI. No. 130/1990 and BGBI. III No. 4/1998, entered into force in 1998.

### **Ukraina**

Agreement on an exchange of information and co-operation in the field of nuclear safety and radiation protection

(Abkommen zwischen der Regierung der Republik Österreich und der Regierung der Ukraine über Informationsaustausch und Zusammenarbeit auf dem Gebiet der nuklearen Sicherheit und des Strahlenschutzes)

BGBI. III No. 152/1998, entered into force in 1998.

## **Annex 2**

### **Multilateral Agreements in the Field of Nuclear Safety and Radiation Protection**

#### **UN / IAEA**

Convention on Early Notification of a Nuclear Accident

(Übereinkommen über die frühzeitige Benachrichtigung bei nuklearen Unfällen)

BGBI. No. 186/1988, entered into force in 1988.

Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency

(Übereinkommen über Hilfeleistung bei nuklearen Unfällen oder strahlungsbedingten Notfällen)

BGBI. No. 87/1990, entered into force in 1989.

Convention on Nuclear Safety

(Übereinkommen über nukleare Sicherheit)

BGBI. III No. 39/1998, entered into force in 1997.

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

(Gemeinsames Übereinkommen über die Sicherheit der Behandlung abgebrannter Brennstäbe und die Sicherheit der Behandlung radioaktiver Abfälle)

BGBI. III No. 169/2001, entered into force in 2001.

Convention on the Physical Protection of Nuclear Material

(Übereinkommen über den physikalischen Schutz von Kernmaterial)

BGBI. No. 21/1989, 31<sup>st</sup> January 1989.

#### **UN / ECE**

Convention on Environmental Impact Assessment in a Transboundary Context

(Übereinkommen über die Umweltverträglichkeitsprüfung im grenzüberschreitenden Rahmen)

BGBI. III No. 201/1997, entered into force in 1997.

Convention on the Transboundary Effects of Industrial Accidents

(Übereinkommen über die grenzüberschreitenden Auswirkungen von Industrieunfällen)

BGBI. III No. 119/2000, entered into force in 2000.

Convention on the Protection and Use of Transboundary Watercourses and International Lakes

(Übereinkommen zum Schutz und zur Nutzung grenzüberschreitender Wasserläufe und internationaler Seen)

BGBI. No. 578/1996, entered into force in 1996.

Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention)

(Übereinkommen von Aarhus über den Zugang zu Informationen, die Öffentlichkeitsbeteiligung an Entscheidungsverfahren und den Zugang zu Gerichten in Umweltangelegenheiten samt Erklärung)

BGBl. III No. 88/2005, entered into force in 2005.

#### **Council of Europe**

European Outline Convention on Transfrontier Co-operation between Territorial Communities or Authorities

(Europäisches Rahmenübereinkommen über die grenzüberschreitende Zusammenarbeit zwischen Gebietskörperschaften)

BGBl. No. 52/1983, entered into force in 1983.

#### **Danube River Protection Convention**

Convention on Co-operation for the Protection and Sustainable Use of the Danube River

(Übereinkommen über die Zusammenarbeit zum Schutz und zur verträglichen Nutzung der Donau)

BGBl. III No. 139/1998, entered into force in 1998.

#### **Alpine Convention**

Convention on the Protection of the Alps (Übereinkommen zum Schutz der Alpen)

BGBl. No.477/1995 entered into force in 1995.