

Convention on Nuclear Safety 7th Review Meeting – 2017



International Atomic Energy Agency IAEA, Vienna

Country Review Report for AUSTRIA

Drafted by Country Group N° 1

(Argentina, Austria, Belgium, Cyprus, Estonia, Jordan, Kazakhstan,
Malta, Mexico, Poland, The Former Yugoslav Republic of Macedonia,
United States of America)

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Version: FINAL

DISCLAIMER: Per INFCIRC 571, Revision 7, Para. 16-19 and Annex IV, Contracting Parties were invited to comment on the implementation of the CNS reporting guidance. Contracting Parties were also encouraged to submit proposed Good Practices, Challenges, and Suggestions prior to the Review Meeting. The draft Country Review Report documents the preliminary observations identified by the Contracting Parties. The Country Review Report is the result of the CNS Review Process and was agreed by consensus by the Country Group.

Glossary

A **Challenge** is “a difficult issue for the Contracting Party and may be a demanding undertaking (beyond the day-to-day activities); or a weakness that needs to be remediated.”

A **Suggestion** is “an area for improvement. It is an action needed to improve the implementation of the obligations of the CNS.”

A **Good Practice** is “a new or revised practice, policy or programme that makes a significant contribution to nuclear safety. A Good Practice is one that has been tried and proven by at least one Contracting Party but has not been widely implemented by other Contracting Parties; and is applicable to other Contracting Parties with similar programmes.”

An **Area of Good Performance** is “a practice, policy or programme that is worthwhile to commend and has been undertaken and implemented effectively. An Area of Good Performance is a significant accomplishment for the particular CP although it may have been implemented by other CPs.”

Executive Summary

Austria has no nuclear power reactor units and currently has no plans to become a nuclear energy country.

Austria has one research reactor of type TRIGA Mark II, and voluntarily reported on it.

Two out of five Challenges and one out of two Suggestions from the 6th Review Meeting have been closed

The Country Group highlights the following measures to improve safety in Austria's national nuclear programme:

- Modernization of the reactor instrumentation, the control system, the primary and secondary cooling circuit and the reactor control room of Austria's research reactor took place from 2014 until November 2015. The new systems were tested until October 2016. The re-instatement of the licence was granted in October 2016.
- Implementation of EU Council Directive 2009/70/Euratom establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste (OJ No. L 199/48 of 2nd August 2011).

The Country Group highlights the following regarding international peer review mission of Austria:

- Austria has not hosted any international peer review mission since the 6th Review Meeting.
- Austria has invited an Integrated Regulatory Review Service (IRRS) mission in 2018.

The Country Group identified the following Challenges for Austria:

- **Challenge 1:** To ensure independence of both licencing and supervisory processes. **(new)**
- **Challenge 2:** To review and assess the updates of the research reactor safety report.
- **Challenge 3:** To implement the Nuclear Safety Directive.
- **Challenge 4:** Consolidate competences in the field of Nuclear Safety and Radiation Protection.

In addition, the Country Group identified one Suggestion and two Areas of Good Performance.

The Country Group concluded that Austria

- Submitted a National Report, and therefore complies with Article 5 and in time following Rule 39 of INFCIRC/573 Rev. 6.
- Attended the 7th CNS Review Meeting, and therefore complies with Article 24.1
- Held a national presentation and answered questions, and therefore complies with Article 20.3

1. Basic Information on Austria's Nuclear Programme

Austria has no nuclear power reactor units and currently has no plans to become a nuclear energy country.

Austria has one research reactor of type TRIGA Mark II, and voluntarily reported on it.

There is also a centralized waste management and interim storage facility in Austria. This is covered by the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

2. Follow-Up from previous CNS Review Meeting

2.1 Challenges

Austria did not, in an explicit manner, in its 7th National Report, provide any updates on Challenges identified during the 6th CNS Review Meeting.

Austria provided, in its National Presentation, the following updates on Challenges identified during the 6th CNS Review Meeting:

Challenge 1: Consolidate competences in the field of Nuclear Safety and Radiation Protection.

Austria reported that the country has started a thorough review of its regulatory system, which is ongoing.

Follow Up Status: Open

Challenge 2: Finalising implementation of Euratom directive (Safety of Radioactive Waste).

Austria reported that the latest amendment of the Radiation Protection Act, in 2015, transposed obligations of the Council Directive 2011/70/Euratom on establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste. The implementation of the National Program is still in progress. Austria refers to the specific reporting regarding radioactive waste management under the "Joint Convention".

Follow Up Status: Closed

Challenge 3: Further modernisation of Radioactive Waste Management Treatment and Conditioning (Buildings, Storage, Technical Equipment).

Austria did not explicitly report on this Challenge in its 7th National Report, but reported in its National Presentation that significant investment in modernization, capacity and safety improvements for the Austrian central radioactive waste management and interim storage facility, Nuclear Engineering Seibersdorf GmbH (NES), was made since the last review meeting. Austria refers to the specific reporting regarding radioactive waste management under the "Joint Convention".

Follow Up Status: Closed

Challenge 4: Further harmonization in EP&R (European level).

Austria reported that the country is actively contributing to various European fora, HERCA in particular, with the approval of the "HERCA/WENRA approach" in October 2015, being the first milestone. The country participated in INEX 5 exercise (natural disaster causing severe nuclear power plant accident) and is in process of developing a comprehensive public information plan for nuclear and radiological emergencies. A comprehensive public information plan for nuclear and radiological emergencies has been developed and is under implementation.

Follow Up Status: Open

Challenge 5: Implementation of new European BSS (Basic Safety Standards).

Austria reported that a complete overhaul of the pertinent Austrian legislation on Radiation Protection, with a view of full implementation by February 2018, the transposition date of the European BSS, has

been initiated.

Follow Up Status: Open

2.2 Suggestions

Austria did not, in an explicit manner, in its 7th National Report, provide any updates on Suggestions identified during the 6th CNS Review Meeting.

Austria provided, in its National Presentation, the following updates on Suggestions identified during the 6th CNS Review Meeting:

Suggestion 1: Develop a more comprehensive public information plan for nuclear or radiological emergencies.

Austria reported that the country has developed a comprehensive public information plan for nuclear and radiological emergencies, as announced during the 6th CNS Review Meeting. The plan is now to implemented and tested.

Follow Up Status: Closed

Suggestion 2: Conduct more frequent exercises with Austrian Coordination Board for National Crisis and Disaster Protection Management.

Austria reported that several exercises have been conducted. In the last two years, there have been two large scale, Austrian wide, off site exercises (MELDEX- 2015 and the INEX-5/INTREX-2016) with active participation of all responsible authorities and the main response organizations at federal and provincial level. INEX-5/INTREX-2016 also exercised the meeting of the Federal Crisis and Disaster Management Board. Further Austrian-wide exercises are planned for the next years.

Follow Up Status: Closed

3. Measures to improve safety

3.1 Changes to the regulatory framework and the national nuclear programme

Since the last Review Meeting, the Country Group took note of the following changes to the regulatory framework and the national nuclear programme:

- Review of the Regulatory System with a view to streamlining competencies of authorities in general.
- Implementation of EU Council Directive 2009/70/Euratom establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste (OJ No. L 199/48 of 2nd August 2011)
- Radiation Protection Act (amendment 2015) transposing the European Radioactive Waste Management Directive (changes covered: national policy in waste management, provisions for a national program, public participation in decision making process).
- General Radiation Protection Ordinance (amendment 2015) transposing the European Radioactive Waste Management Directive (changes covered: provisions for construction of waste management facilities, organisation and safety of waste management facilities, record keeping, information of the public)

3.2 Safety improvements for existing nuclear power plants

Austria has no nuclear power reactor units. Therefore, this section is not applicable. However, Austria reported on safety improvements regarding the country's research reactor.

The Country Group took note of the following implemented and planned safety measures for the existing research reactor in Austria:

- Modernization of the reactor instrumentation, the control system, the primary and secondary cooling circuit and the reactor control room took place from 2014 until November 2015. The new systems were tested until October 2016. The re-instatement of the licence was granted

in October 2016.

- The radiation warning system has been renewed during 2017.

Modernization of radioactive waste management treatment and conditioning facility (buildings, storage, technical equipment) is ongoing.

3.3 Response to international peer review missions

Austria has not hosted any international peer review mission since the 6th Review meeting.

Reflecting pertinent European legislation Austria has invited an Integrated Regulatory Review Service (IRRS) mission in 2018. Self Assessment will be carried out during 2017.

4. Implementation of the Vienna Declaration on Nuclear Safety (VDNS)

On 9 February 2015, the Contracting Parties adopted INFCIRC 872, “Vienna Declaration on Nuclear Safety”, which is a commitment to certain principles to guide them in the implementation of the CNS’ objective to prevent accidents and mitigate their radiological consequences, should they occur. The Contracting Parties agreed to discuss the principles of the Vienna Declaration on Nuclear Safety in their National Reports and in the subsequent Review Meetings.

Austria has no nuclear power plants and no plan for construction of such.

The Austrian National Report addressed the implementation of the VDNS second principle regarding existing nuclear facilities.

4.1 Implementation of the VDNS’s principle on new nuclear power plants

The first principle of the VDNS is:

“New nuclear power plants are to be designed, sited, and constructed, consistent with the objective of preventing accidents in the commissioning and operation and, should an accident occur, mitigating possible releases of radionuclides causing long-term off site contamination and avoiding early radioactive releases or radioactive releases large enough to require long-term protective measures and actions.”

Austria has no nuclear power plants and no plan for construction of such. Therefore, it did not provide information on the implementation of the first principle of the VDNS.

4.2 Implementation of the VDNS’s principle on existing nuclear power plants

The second principle of the VDNS is:

“Comprehensive and systematic safety assessments are to be carried out periodically and regularly for existing installations throughout their lifetime in order to identify safety improvements that are oriented to meet the above objective. Reasonably practicable or achievable safety improvements are to be implemented in a timely manner.”

Austria reports, that its national requirements and regulation address the application of the principles and safety objectives of the Vienna Declaration to existing facilities in the following way: the modernization of the reactor instrumentation, the control system, the primary and secondary cooling circuit and the reactor control room took place from 2014 until November 2015. The new systems were tested until October 2016. A new license is obligatory for any further reactor operation.

The Atominstitut of the Technische Universität Wien (ATI) submitted the Periodic Safety Review (PSR) at the end of 2014. The Federal Ministry of Science, Research and Economy approved the PSR in 2015, but demanded improvements of, according to the National Report, all systems and components.

Austria reports, that its national requirements and regulation:

- require the performance of periodic comprehensive and systematic safety assessments of the existing research reactor.

- require reasonably practicable/achievable safety improvements to be implemented in a timely manner.

According to Austria, as the country has no nuclear power plants in operation or decommissioning, reporting on the second principle of the VDNS is only applied regarding continuous improvement of legislation and regulatory framework in its application to the research reactor and the radioactive waste management facility based on state-of-the-art concepts in science and technology.

The Country Group made the following observations:

- The Austrian national legislation requires Periodic Safety Reviews to be conducted.
- The Austrian national legislation and regulatory framework requires safety improvements to be implemented in a timely manner on existing nuclear facilities.

4.3 Taking into account IAEA Safety Standards and other international Good Practices in the national requirements and regulations addressing the VDNS principles

Austria reports that relevant EU legislation is taken into account throughout the lifetime of a nuclear facility.

According to Austria, this section is not applicable, as the country does not operate nor plan any nuclear power plants, nor has the country any nuclear power plants in decommissioning. Nevertheless, Austria reports that its national requirements and regulation take into account the relevant IAEA Safety Standards throughout the lifetime of a research reactor.

Furthermore, Austria reports that its national requirements and regulation also partly take into account other international Good Practice throughout the lifetime of a research reactor, such as guidelines and proceedings of the TRIGA community, as well as others, such as International Group on Research Reactors (IGORR), Advanced Fast Reactor (AFR), and Research Reactor Fuel Management (RRFM). Close contact of the personnel of the research reactor to the IAEA technical experts also assist to take into account international Good Practise. Those memberships intend the exchange of experiences in the work with research reactors in other countries.

The Country Group made the following observations:

- The Austrian national legislation and regulatory framework takes into account the relevant IAEA Safety Standards throughout the lifetime of a research reactor.

4.4 Issues faced by Austria in the implementation of the VDNS

Austria does not report facing any specific issues in applying the Vienna Declaration principles and safety objectives to its existing nuclear facilities.

5. Results of the Review

5.1 General Quality of the National Report

Contracting Parties and officers were invited to provide general comments on Austria's implementation of the obligations of the CNS (e.g., report submitted on time), addressed all articles, addressed the Vienna Declaration on Nuclear Safety, and addressed all Challenges and Fukushima lessons learned, the general quality of its National Report, transparency issues, and the compliance with the CNS guidance documents and special peer review topics identified in the previous CNS Review Meeting or specified by the President of the CNS (reporting on the management of spent fuel on site and radioactive waste on site - especially for CPs not signatories of the Joint Convention and if relevant on the use of the templates for articles 17 and 18).

The Austrian National Report addressed the implementation of the VDNS second principle regarding existing nuclear facilities. The National Report provided generic level information on how the country meets the safety objective of the VDNS.

Austria has ratified the Joint Convention and the country did report on management of radioactive

waste on site in its National Report.

With regards to the general quality of the National Report and transparency issues, the members of the Country Group made the following observations:

- The Report is qualified to be comprehensive and reader friendly.
- Austria reported on its legislation and regulation as well as management of spent fuel from TRIGA reactor Vienna and radioactive waste.

With regards to the compliance with the requirements of the CNS and its Guidelines, the members of the Country Group made the following observations:

- The Report was submitted before the deadline of 15 August 2016.
- The content and structure of Austria's National Report complies with the CNS guidance.
- The directions of the Summary Report of 6th Review Meeting were taken into consideration.
- The directions given by the President of the 7th Review Meeting were mostly followed.

5.2 Participation in the Review Process

With regards to Austria's participation in the Review process, the members of the Country Group made the following observations: Austria

- posted questions to Contracting Parties.
- delivered answers to the questions of Contracting Parties on time.
- delivered its national presentation.

5.3 Challenges

The Country Group identified the following Challenges for Austria.

- **Challenge 1:** To ensure independence of both licencing and supervisory processes. **(new)**
- **Challenge 2:** To review and assess the updates of the research reactor safety report.
- **Challenge 3:** To implement the Nuclear Safety Directive.
- **Challenge 4:** Consolidate competences in the field of Nuclear Safety and Radiation Protection.

5.4 Suggestions

The Country Group identified the following Suggestion for Austria.

- **Suggestion 1:** To report status of actions taken on the Challenges from the CNS 7th Review Meeting in the National Report for the 8th Review Meeting.

5.5 Good Practices and Area of Good Performance

During the peer review of Austria's National Report, the Contracting Parties were invited to recommend Good Practices and to highlight Areas of Good Performance.

The Country Group identified no Good Practices.

The following Areas of Good Performance of Austria was commended by the Country Group:

- **Area of Good Performance 1:** Regular bilateral experts meetings based on bilateral agreements with information exchange on nuclear safety and radiation protection. In addition, intense co-operation with neighbouring countries in the field of EP&R: automatic monitoring data exchange, development of decision support systems, regional exercises.
- **Area of Good Performance 2:** Active Participation in European Nuclear Safety Regulators Group and in various international experts groups in the field of nuclear safety, EP&R and

radiation protection.

6 Fulfilment of CNS Review Requirements

The Country Group concluded that: Austria

- Submitted a National Report, and therefore complies with Article 5 and in time following Rule 39 of INFCIRC/573 Rev. 6.
- Attended the 7th CNS Review Meeting, and therefore complies with Article 24.1
- Held a national presentation and answered questions, and therefore complies with Article 20.3