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Opening address

– Check against delivery –

49th Annual Meeting on Nuclear Technology (AMNT 2018),

29 to 30 May 2018, Berlin

Ladies and Gentlemen,

On behalf of the DAfF and the German Nuclear Society, welcome to our 49th Annual Meeting on Nuclear Technology in Berlin. As in other years, we offer a comprehensive program, giving insights into many aspects of nuclear technology and contributing to the international exchange of knowledge and experience in industry, research, politics and administration.

Ladies and Gentlemen,

In keeping with long-standing tradition, even in the year preceding its 50th anniversary, which I'd like to invite you to attend in Berlin on 7 and 8 May 2019, the AMNT remains the only conference in Germany, and one of the few in Europe, that combines all the issues surrounding nuclear technology under one roof and is dedicated to every sector of our industry.

Waste management – old challenges, new structures

It is not only Germany as a venue but also the relevance and complexity of the dismantling and waste management issues that again make them one of the focal points of our conference. The reorganization of nuclear waste management in Germany, which has been negotiated and put into legal form over the last few years, is as such broadly complete following approval by the European Union and the transfer of around EUR 24.1 billion to the state waste management fund by the operators on 3 June 2017. However, the transfer of responsibility for the site-based interim storage facilities to the Federal Company for Interim Storage is still pending. But let me give you an overview of the status quo based on the new structure.

The search for a final repository is slowly gaining momentum

The Federal Office for the Safety of Nuclear Waste Management [*Bundesamt für kerntechnische Entsorgungssicherheit – BFE*] is, in its own words, “*a growing authority with growing responsibilities*”. In the public perception, according to the Site Selection Act (StandAG), the BFE is currently complying with the second part of the task assigned to it by the legislator: “*The Federal Office for the Safety of Nuclear Waste Management is the body responsible for organising public participation in the site selection process. It informs the public comprehensively and systematically about the site selection process.*” The breadth of issues dealt with by the BFE’s publications is evidence of this.

At this point, I would also like to mention the work of the national advisory committee which recently presented its first report on the selection process for a final repository site. Broad public participation in the work of the advisory committee is essential for performing the tasks assigned to it and is therefore desirable.

Other key tasks of the BFE according to the Site Selection Act (StandAG) are: specification of the exploration programmes, examination of the project developer’s proposals and the preparation of well-founded recommendations based on them as well as monitoring of the site selection process. However, this initially requires preliminary work that is currently in process, including the selection of site regions and the sites to be explored.

The Federal Company for Radioactive Waste Disposal [*Bundesgesellschaft für Endlagerung – BGE*] is responsible for this and Dr. Jörg Tietze, Acting Head of Site Selection within the BGE, will tell us about its work today. As the project developer, the BGE has to “*carry out the site selection process*” according to the will of the legislator.

The BGE which is also responsible, of course, for the Konrad final repository has now announced a concrete date for completion of the final repository in the first six months of 2027. Measured against the original objective, that is to say 2013, the criticism regarding the extent of the delay, particularly on the part of the public authorities, for example in Baden-Württemberg or Schleswig-Holstein, is entirely comprehensible. However, we now see this fixing of a date as a kind of voluntary commitment by which it must be measured.

On 1 August of last year, the Company for Interim Storage [*Gesellschaft für Zwischenlagerung – BGZ*] became the property of the federal government and took over the responsibility for the central interim storage facilities in Ahaus and Gorleben. From 1 January 2019, the company will take over the decentralised interim storage facilities with heat-generating waste and, from 1 January 2020, the interim storage facilities for waste with negligible heat generation.

The BGZ will also need the skills it has acquired in the process for the construction of a central receiving store for Konrad. This important task and the responsibility for all interim storage facilities will broaden the BGZ's range of responsibilities and strengthen public perception of the company.

Good and trusting collaboration between state actors and private operators is indispensable for public acceptance

A smooth working relationship between state agencies and private operators as part of this reorganization is crucial not only for safety and efficiency but also for public acceptance of the newly created structures and regulations. The operators are fully committed to the obligations agreed and we also expect this from our contractual partners.

Demolition: operators meeting their obligations without any ifs or buts

The operators are committed, without any ifs or buts, to their obligation to drive forward safe and efficient demolition and have already received a whole series of licences for this. Unfortunately, challenges are arising that are neither materially substantiated nor covered by regulatory requirements. This applies in particular to the release of rubble from nuclear power plants and taking it to public landfill sites. Some of the cited public criticism about alleged health risks is inappropriate and does not contribute to solving this task for the whole of society.

The rubble released from demolition is harmless to health

Unsettling the local residents of the landfill sites concerned with unfounded and alarmist claims unnecessarily complicates a safe and internationally recognised disposal path and considerably hinders demolition. It is gratifying that socially recognised institutions, such as the German Medical Association, are successfully resisting the attempt to exploit them for the purpose of a discrediting campaign. We would sincerely like to thank the Board of the German Medical Association and its president, Prof. Dr. Frank Ulrich Montgomery, for confirming that the resolution taken by the 120th German Medical Conference, which critically questions the 10 microsievert concept, is scientifically untenable. It is very important and very positive to see authorities, operators and policymakers working together on this issue. Here I would like to quote Franz Untersteller, Baden-Württemberg's Minister for the Environment: *"The rubble which we have now cleared for landfill is harmless to health."*

No technically unfounded, regulatory tightening for phase-out operation

It would be desirable and important for us to continue this broad consensus on other issues too, such as the smooth return of waste from reprocessing in France and the United Kingdom, and above all on politically trouble-free phase-out operation of nuclear power plants.

We welcome the federal government's intention to implement the judgment of the Federal German Constitutional Court of 6.12.2016 with the 16th Atomic Energy Amendment Act and thus to pacify long-standing disputes and protect employees affected by the structural change. The decision to convert the electricity quantities agreed in 2000/2001 into electricity within the remaining operating time will have a positive effect not only on the federal budget but also on CO₂ emissions.

The current draft bill still needs some clarification to avoid further disputes. It has to be made clear that there must be not only a "fair" but a complete settlement in money, that is for all non-convertible quantities within the group and not just for the quantities that are not transferred. The values of the electricity quantities existing at the time of the compensation-triggering event must be taken as a basis and the appropriate interest paid. Payments already made for a transfer must be taken into account. Only in this way can constitutionality be restored. Any limit imposed on compensation claims must not result in the power generation deficit determined by the Federal German Constitutional Court not being fully compensated.

Isolated positive signals in the coalition agreement – the implementation is what is important

Overall, it will be exciting to see how things progress with nuclear power in particular and nuclear technology in general in Germany. Karsten Möring, Member of the German Parliament, rapporteur for nuclear energy in the

CDU/CSU parliamentary group, will give us an insight into the future of both immediately following this speech. However, if we try to gain an impression ourselves based on the current coalition agreement, then it is basically positive.

The following was agreed in the wording: *“We stand for speedy implementation in the search for a final repository for highly active waste in accordance with the Site Selection Act. We are adhering to the statutory goal of establishing the site for a final repository by 2031.”* It remains true that this milestone is already ambitious. According to the relevant experts, planning approval and construction are clearly likely to continue into the second half of the century. It remains to be seen how the implementation will be carried out, especially against the backdrop of extensive public participation and the legal remedies available.

It was also agreed to develop *“...a concept for the perspective preservation of specialist knowledge and staff for operation, dismantling and safety issues in nuclear facilities as well as for interim and final disposal.”* It was stated absolutely correctly: *“Anyone who wants to have a say in safety issues must also be able to do so. The preservation of expertise is indispensable for this.”* For this reason too, the topic of preserving expertise is top of the agenda in the work of the DATF.

Sites in Gronau and Lingen must be maintained – Nuclear competence can only be preserved by means of further development

To preserve expertise, it is necessary to further develop and apply nuclear skills and knowledge so that it is possible to continue to operate production facilities. Only in this way can Germany continue to have a say and also make decisions at international level. Fortunately, this realization is also gaining acceptance among political decision-makers. Armin Laschet, Minister President of North-Rhine Westphalia, was completely right when he asserted in his speech at the state

parliament on 1 March 2018: *“If we close Gronau, if we close Lingen, then this will mean that Germany is saying goodbye to this area of production. We will then no longer be a member of the International Atomic Energy Agency. [...] Gronau will therefore remain, [...].”* In his speech, Minister President Laschet meant the loss of a permanent seat on the IAEA Board of Governors.

Drawing up a master plan for the further development of nuclear competence

In view of the need to further develop nuclear competence and skills in order to tackle the upcoming tasks in Germany and to preserve the ability to have a say internationally, it is appropriate to ask here when the federal government will come up with a master plan for the further development of nuclear competence? A master plan that will allow Germany to adequately assess international development, whether in operation, regulation or research, in 10, 20 or even 30 years' time. And what will this master plan look like?

Many countries continue to rely on nuclear power as part of a clean, low-carbon, sustainable electricity mix

The worldwide development of nuclear energy emphasizes the topicality and importance of this question. With the start of construction on the first block of the Akkuyu NPP in Turkey on 3 April this year, which will be followed by three more blocks, we see the implementation of a project whose origins date back to the 1970s. EDF's construction of the new Hinkley Point C in the United Kingdom is being boosted further by the 3,000 strong workforce working on it daily. The first block constructed by South Korea in Barakah in the United Arab Emirates is scheduled to go online this year. And with the run-up of Ohi-3 on 14 March and Genkai-3 on 23 March 2018, Japan is still on its way back to becoming a leading nuclear nation. These are just a few examples that refute the frequently implied decline of nuclear energy. With initial criticality and first feed-in to the grid of

the fifth nuclear power plant block at the Chinese site in Yangjiang, there are currently 451 nuclear power plants in operation worldwide – more than ever before in the over 60-year history of nuclear energy. At 451 GW gross and almost 400 GW net, 399.8 GW to be exact, the output of the plants also hits record figures.

The other 57 nuclear power plants currently under construction worldwide clearly show that many countries continue to choose nuclear power as part of a clean, low-carbon, sustainable electricity mix of the future. A joint report by the International Energy Agency, the International Renewable Agency, UNO organizations and the World Bank of 2 May 2018 predicts an increase in the share of nuclear power in global power generation to a total of 15 percent, from 10 percent at present. German companies and Germany-based companies, with their acknowledged expertise, particularly in nuclear safety issues, have great potential to participate in this development. However, this requires reliable and ideology-free support for export activities. This would also secure the urgently needed development of competence in the nuclear technology field in the long term.

Nuclear energy research continues to be promoted internationally

An important milestone in the ITER project was reached in November of last year when 50 percent of the total output on the way to the first plasma was generated. Despite some scepticism about the project, including among our own ranks, we are hopeful about the outcome of this exemplary international collaboration.

Development in the field of SMRs also remains exciting. The announcement by Rolls Royce of bringing electricity costs to the level of offshore wind power and the creation of a new technical working group at IAEA dedicated to SMRs give a

new boost to the development of compact small reactors as does the transport, which commenced on 28 April 2018, of the world's first floating nuclear power plant from St. Petersburg to its site of operation.

Nuclear technology is more than nuclear power

Against this background, we do not intend to challenge Germany's phasing out of nuclear power. The phase out, however, does not mean that Germany should be allowed to become a nuclear technology-free zone. Nuclear technology, as we know, is more than just power generation. This is why, as the DAfF, we are increasingly devoting ourselves to other topics. We must oppose the efforts of some political forces to phase out the use of nuclear technology in other areas such as medicine, agriculture and industry.

This means that not only top-level research, such as the Garching research reactor FRM II, which holds the world's best ratio of thermal output to neutron flux and is thus one of the most effective and modern neutron sources in the world, but also everyday applications must also be maintained. We need to raise public awareness of the fact that nuclear technology associated with

- medical applications such as X-rays, computed tomography, radiation treatment and diagnostic applications,
- the killing of germs in the food industry and in medicine,
- the treatment of seeds and the development of new plant species,
- the non-destructive testing of materials and joints in the aviation and automotive industries

is part of our everyday life. The aim is to raise public awareness of the fundamental importance of maintaining nuclear research and applications in Germany.

Successful AMNT as *the* annual meeting of the whole industry

Ladies and Gentlemen,

With your commitment, you all make an important contribution to the development of nuclear competence, not only in Germany but worldwide. It is you who actually make the AMNT, as an international platform for knowledge and dialogue, possible and who fill it with life; who plan and are responsible for the programme, give presentations and enrich our annual meeting with your participation. For this you have my heartfelt thanks.

I would also like to sincerely thank our many partners who are providing an exceptional display at the completely sold-out industry exhibition. I am also pleased to welcome our British partners. Our intensive discussions as part of the last “Energy in Dialogue” event as well as the personal exchange between the DAfF and British government representatives on the topic of Brexit are currently arousing justified hope that this collaboration will continue largely undisturbed. The fact that, in addition to nuclear communities from the United Kingdom and the Czech Republic, we are also welcoming many well-known but new exhibitors from home and abroad strengthens this hope. The breaks are a good opportunity for obtaining information and exchanging ideas and opinions.

The DAfF reception, to which you are all cordially invited, will take place immediately after the second part of the plenary session. Following this, we can look forward to the traditional social evening which our exhibitors and sponsors warmly invite you to attend.

Ladies and Gentlemen,

I wish everybody a successful meeting with fruitful and interesting discussions and exceptional insights.