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Opening address
– Check against delivery –

Annual Meeting on Nuclear Technology (AMNT),
16 to 17 May 2017, Berlin
Ladies and Gentlemen,

Welcome to our 48th Annual Meeting on Nuclear Technology in Berlin on behalf of the DAfT and the German Nuclear Society. It is my pleasure to see you again in Berlin. As in other years, we offer a comprehensive program, providing 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,

The content of our Meeting is already reflected in the Plenary Session with its fixed topics relating to politics, industry, expertise, communication and waste management. In the section on politics, Steffen Kanitz, rapporteur for nuclear energy of the CDU/CSU parliamentary group in the Bundestag, will provide us with an overview of a turbulent year for German nuclear energy policy. Guido Knott, Chairman of the Board of Management of PreussenElektra GmbH, will give us an understanding of the challenges involved in operating nuclear power plants cost-effectively in Germany. We are looking forward to the panel discussion on dismantling and I would also like to draw your attention to our workshop on the preservation of skills after the lunch break today and tomorrow morning.

Special thanks are due to our partners in the exhibition and for the sponsoring without which our meeting would not even be possible. The exhibition provides you with the opportunity to make personal contact with a large number of companies and organisations in our industry with the chance for a direct exchange of ideas and information. We have further increased the number of international partners involved. I want to draw your attention to the Czech pavilion and also the UK’s pavilion. Our British colleagues are facing historic decisions in their own country and in respect of the future relationship with Europe. We hope that solutions will be found during the Brexit negotiations that
enable constructive cooperation in nuclear technology to continue in the future. This applies not least to the new British construction projects.

**Upheavals, new beginnings and the travails of everyday business**

The past twelve months in German nuclear energy policy have been characterised mainly by, what I would call, late legislative clearing up work which has been pending since the decision for an accelerated phase-out of nuclear power in 2011. This applies particularly to the reorganisation of financing in nuclear waste management where a whole legislative package has been used to implement a change of system in many areas. This process is not yet quite complete. The laws themselves have not yet entered into force due to being examined for conformity with EU law, and the contractual arrangement sought between the nuclear power plant operators and the government has not yet been signed.

Of course, there is criticism of the arrangements.
- On the one hand there are fundamental reservations regarding limitation of liability.
- For the operators, however, the high risk premium on the waste management costs represents an additional burden that is unexpected and hard to bear and which is now likely to increase yet gain in the wake of recalculations.

Overall, however, the reorganisation in waste management will satisfy the conditions of the phase-out. A situation with permanent separation between responsibility for action and financing, potentially unlimited secondary liability and a ban on using nuclear energy could not have existed in the long run.

The other major political work package – and Mr Kanitz will report on this in detail very shortly – was the amendment to the Site Selection Act (StandAG). Although political agreement was reached in spring 2013 on the search for a new site for a final repository for high active waste, in many details the law was still poorly conceived and left the Final Repository Commission with a number
of unanswered questions along the way. Dr. Bernhard Fischer and Professor Gerd Jäger called on our industry’s expertise while working on this constructively and with tremendous dedication. As part of the practical implementation, transfer of the DBE (German Company for the Construction and Operation of Waste Repositories) to the government was completed here in Berlin yesterday. As an industry we have contributed to describing the path for a solution in the search for a new final repository. Now it is the politicians’ task to implement the set framework consistently.

Despite everything that has been achieved – here we should also mention reorganisation of the regulatory and institutional structure for final disposal, the 15th amendment to the Atomic Energy Act and the first consolidated Radiological Protection Act in German legal history – there is still work to be done.

Reorganisation in waste management also includes the transfer of responsibility for interim storage to the state. This is an even bigger change to the system than that for final disposal but it is not so much in the public eye. A whole series of operational challenges will arise when the operational responsibility changes. This change was set in motion when the Federal Company for Interim Storage was set up and the aim, for the central interim storage facilities, is for it to be completed during the course of this year, for the site-based high-level interim storage facilities early in 2019 and for the LLW/ILW storage facilities a year later. The first steps have been taken and the choice of Essen as the company’s headquarters will have a positive effect, particularly on preserving the necessary skills, as a result of GNS employees transferring over. Together, the nuclear power plant operators and the GNS are handing over a well-functioning system in which high safety requirements are applicable. They are thus making an important contribution to the reorganisation of responsibility in nuclear waste management.

Now we come to the practical test of implementing the Site Selection Act. When will the Federal Company for Final Disposal, as the project developer, be capable of working operationally? What time frame must we realistically
assume for the whole process? Will the first selection step, the localisation of subareas on the white map, actually be completed by 2021 as is currently the aim? The division and clear definition of tasks between BfE (Federal Office for the Safety of Nuclear Waste Management) and BGE (Federal Company for Final Disposal) is another issue. It applies particularly to final repository research which now has many new tasks. It has not yet been specified who will be responsible for final disposal research in the future.

Due to the concentration on high active waste, another waste management issue has faded somewhat into the background: What exactly is happening with the Konrad facility? Are the plans for completing it by 2022 still valid? When will regular operation actually start? How is the outflow from the interim storage facilities to be prioritised? These questions are important for any region throughout Germany that has an interim storage facility, a state collecting facility or a dismantling project. By bundling the interim storage facilities in a federally-owned company, I see opportunities for bringing more common sense to the discussions and accelerating the processes.

In the comments of the Federal Court of Auditors for 2016, there is criticism that the Federal Government has not adequately exercised supervision of the Konrad project over the years. It recommends using the reorganisation of tasks, which is welcomed by the Federal Court of Auditors, to document the current situation, to make contractual agreements with the BGE and to implement closer monitoring. These considerations sound reasonable and the ongoing restructuring provides an excellent opportunity to get such project management off the ground; it could be the culmination, so to speak, of the many reforms in this legislative period.

At the same time, of course, we have the operation of the nuclear power plants which we will safely continue with and which we would also like to continue cost-effectively. Last January showed yet again that, particularly during the so-called “dark doldrums”, grid operators and reserve capacities are gradually reaching their limits. The reserve capacity requirement of 10,400 MW now
specified by the Federal Network Agency for the coming winter speaks for itself.

There is political consensus on the phased exit from nuclear energy which we will implement by 2022 with our expertise and also by safe operation. So there must be no factually unfounded complications to the operation of the nuclear power plants in the last few years.

Ladies and Gentlemen,

The major issues of the future for nuclear technology in Germany are dismantling on the one hand and nuclear expertise on the other hand. These questions affect us all and are long-term issues.

**Dismantling by consensus**

Dismantling is on the right track. The first decommissioning and dismantling licences within the scope of phasing out nuclear energy have been issued – for Isar 1, Neckarwestheim 1, Biblis and Philippsburg 1. Important preliminary work has been carried out at all the sites; they are free of fuel or work is ongoing to ensure this. It is important here that the flask and storage licences still outstanding are issued on time. However, it is only in the coming years that the considerable breadth of the projects will become apparent.

In recent years, when requesting factual information about dismantling and when consulting with citizens, cooperation with the authorities has been good and the support of politicians has been helpful. It is important for speedy dismantling to maintain the consensus which now exists between state and operators and to push the projects forward efficiently on this basis. I have little sympathy here with the traditional adversaries of nuclear energy who for ideological reasons are now fighting the dismantling process as well. In Germany dismantling is being carried out in compliance with the highest safety standards and, just like the construction and operation of a nuclear power plant, it is subject to constant inspection by the authorities and their experts.
Preserving and developing nuclear expertise

Our real challenge though is nuclear expertise. This is important for research, for industry but above all for the state itself. Many people may simply not be aware of this.

The topic of preserving and building up nuclear expertise by shifting operational responsibility to federally-owned companies will gain relevance particularly in the waste management sector. Taking into account all the authorities and public companies that operate in the waste management sector, we could soon be talking about up to 4,000 employees. Together with the civil servants and government employees in other areas of nuclear technology, in expert appraisal and in research, it may be assumed that in the future at least a sixth of the more than 30,000 employees in the industry will be assigned to the public sector. In the long term, this will require appropriate training of skilled staff and targeted human resources planning. It can only be successful if there are positive prospects for young people who employers would like to win over for the important work ahead. It also needs to include appropriate public discussion of the subject.

The question of expertise covers the whole range of scientific and technical knowledge relating to nuclear technology: basic nuclear research, reactor safety research, radiochemistry, radiological protection, nuclear applications in medicine, industry and agriculture, to mention but a few examples.

Let’s take reactor safety research which is closely linked to the operation of nuclear power plants. Reactor development in particular is now subject to the accusation of being redundant; sometimes it is regarded as outmoded or even illegitimate. Nuclear safety research, however, forms the basis for expertise in safety issues in which Germany has stated its intention to play a long-term role and exert its influence. If we want to continue participating in the international discussion of safety standards, then continuity in safety research is absolutely essential.
Our nuclear expertise, however, can only develop in collaboration with scientifically attractive partners in other countries. To win them over for this purpose requires appropriate facilities and experts who are able to offer added scientific value. This applies to all topics, especially innovations and new design concepts. After all, we need to be able to knowledgeably have a say too. Consider, for example, a development in fuel assemblies, such as that which Seth Grae, CEO of the Lightbridge Corporation from the USA, will be presenting later. In the long run, scepticism about research or even a ban on research has never done any industrialised country any good.

In practice, however, we see that teaching and research are being thinned out, that university chairs are not being refilled and, under political pressure or for image reasons and in a spirit of anticipatory obedience, whole institutes are withdrawing from those areas that are not assigned to waste management or dismantling.

**Centre of Expertise for Nuclear Safety?**

The question here is: what can we do? On the one hand, the Federal Government wants and needs to access the appropriate expertise and it also has the funds for this. On the other hand, many federal state governments want nothing more to do with the subject and are thus shaping the orientation of universities and research institutes. The solution might lie in a new Centre of Expertise for Nuclear Safety where current issues could be dealt with without the burden of past conflicts. Here, it may be possible to pool capacities, to network research, state and industry and to create an attractive hub for our international collaboration. A new start such as this might provide young people who want to become involved in nuclear technology with credibly fascinating tasks, good prospects, respect and appreciation. Perhaps such a project would not require the very broad general consensus but rather a viable coalition of people with insight.
Nuclear energy – long-term reality in Europe

Insight also includes the realisation that other countries are not following our path. Now, after many years of delay, the new construction projects of Olkiluoto and Flamanville have reached the preparations for commissioning and are no longer merely a mirage. The Hinkley Point C project has received its first partial permit. By the way, all four reactors will be constructed using instrumentation and control equipment made in Germany. In the United Kingdom, in addition to the EPR by Areva, the AP 1000 by Westinghouse has also received confirmation in the Generic Design Assessment and the ABWR by Hitachi will follow by the end of the year.

Things are also happening east of Germany: a few months ago unit 1 of the Novovoronezh II nuclear power plant went online – with German instrumentation and control equipment and a planned operating period up to 2077. Unit 1 of the Leningrad II nuclear power plant, which is set to replace the old Chernobyl-type plants, is in start-up commissioning. Construction of the first nuclear power plant in Belarus is scheduled and the projects in Paks and Hanhikivi are also being pushed forward consistently. Our Czech partners also have expansion plans, not least with a view to preventing CO2. There will be no shortage of interested parties as no less than six suppliers have already expressed an interest. In Poland, the site selection process for the first nuclear power plant has entered the concrete phase within the defined area. If safety is also going to be a concern for us in the coming decades then it must be Germany’s goal to count permanently as a partner in safety with recognised expertise. However, the repetition of demands for phase out is not sufficient, what is needed in fact is a constructive attitude.

Nuclear technology – part of the location for industry and science

And let’s not forget that Germany will also benefit from nuclear technology in many respects and in the long term. The research reactors in Munich, Berlin and Mainz are not only used for basic research, they also do a great deal for applied research and industrial development. They are also indispensable for direct
applications in industry and medicine. Nuclear technology is also found elsewhere: such as in non-destructive material testing, plant breeding, in medical diagnosis and therapy. Nuclear technology is directly linked to our status as a country of science and technology.

And let’s not forget economic value creation. Many internationally recognised nuclear technology companies are both important employers and taxpayers. This industrial value chain made up of manufacturers, suppliers and service providers also requires nuclear expertise, especially in safety engineering. Germany has a good reputation in this field and German products and services related to nuclear safety are in great demand. Obstructing export will not increase nuclear safety for Germany, for our neighbours or for the world. And vital expertise can only develop while it’s in use, e.g. in industry, and therefore in the medium term largely in exports.

This also applies to companies involved in the fuel cycle in Germany which are now frequently becoming the target of political debate. These facilities are explicitly excluded from the phase out of nuclear energy use and we reject any efforts to expand the phase out. The Federal Government may well profess uranium enrichment and fuel assembly manufacturing in Germany as centres of expertise. When it comes to using the expertise of these companies for operational and waste management safety, for the subject of non-proliferation and for security-policy risk assessments, then it is not so distant. In this field too, Germany would like to have its own knowledge and it’s the same here as with reactor safety. Those who want to perfect the phase out will also perfect the loss of expertise. This cannot and must not be our aim.

**Successful AMNT**

Ladies and Gentlemen,

Maintaining and developing expertise in addition to national and international networking are ultimately the key tasks of the AMNT. In this case, the
commitment and expertise of those who participate in designing the programme, who are responsible for the sessions and give presentations in their specialist fields, form the backbone of our meeting. I would like to thank you all very much for your contribution to the AMNT, which in 2017 has once again become our industry’s most important platform for exchanging knowledge and experience in Germany. I would also like to thank all those taking part who make our AMNT so diverse and enriching.

The German Atomic Forum’s traditional reception, which you are cordially invited to attend, will take place this evening from 7 pm. It will flow seamlessly into the usual social evening which we are all looking forward to. As in previous years, our exhibitors hope you will accept their invitation to join them.

Ladies and Gentlemen,

I wish everyone a successful meeting with lively discussions and valuable insights. And please don’t forget to enjoy your participation here and your stay in the vibrant city of Berlin.