

Keynote Address at Opening Plenary

Overview of Nuclear Activities in Taiwan

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Taipower President Chen, Union President Shih, ANS President Foulke, Director-General Lin, our honorable guests from abroad, members of the Chung-Hua Nuclear Society and the ANS-Taiwan Section, Ladies and Gentlemen:

Good Morning! I take great pleasure this morning to attend this 2005 Taiwan Atomic Energy Forum and as the Chairman of the Forum and also on behalf of the Chung-Hua Nuclear Society, to welcome all of you coming to this Forum. I must express my sincere appreciation for the American Nuclear Society for your President Dr. Foulke coming a long way rendering us your support, and the many distinguished guests also coming afar from Sweden, Korea, Japan and the United States. And of course, my dear friends and colleagues from all areas of nuclear and related professionals in Taiwan.

We have come a long way for a forum like this. Many of you may still remember the last time we have a gathering like this over twelve years ago during the 8th Pacific Basin Nuclear Conference held in Taipei. We have accomplished a lot since then. We have put the construction of the 4th Nuclear Power Plant on track with a construction permit issued to Taipower and site construction on going. We have resolved the contaminated- rebar incident in many of the houses of our citizen by providing technical consultations and assistance to them to solve their (ours also) problems. We are all very pleased to see the operation of our nuclear power plants more reliably and safely. We have initiated new programs to monitor possible accidents of radiation contaminations from recurring, whether it comes from hospitals, steel plants, smelters, dental clinics, isotope users or importation from foreign countries. We made efforts to enhance safety regulations and promote safety culture in every aspects of our work. We emphasized the importance of nuclear emergency readiness and have improved our readiness exercises every year. We encouraged research programs into key aspects regarding safety technologies. The list can be on and on and on.....

However, the very fact is that we have had a comparable disturbing ten years in the past. We have almost come to a point that we as nuclear professionals avoided discussing nuclear issues in the open. I was a professor at the National Tsing-Hua University during this period. I may say that I have had the privilege to look at the problem from a comparable distance and hopefully with a broader viewing angle. Instead of getting entrenched with problems and problems, what solutions can we propose that will turn around the situation? I often asked myself.

We Must Provide What the Public Expects for. As nuclear professionals, this means safe and trustworthy nuclear services. 安心!

放心! Just as simple as it is. Over the years I am most honored to have the opportunity to work together with many of you to convince the public that nuclear safety is more than just achievable; it is the right of the public to demand for it. Confidence by the public can only be earned by what we behave rather than what we say. And what we behave that will receive a first level of public trust comes from our honesty.

This explains why I was with no embarrassments when I openly admitted the ignorance by AEC in the contaminated-rebar case and bowed to our citizen for their forgiveness. I embraced concerned citizen with different voices on nuclear energy applications come to AEC to monitor our work of safety regulation. Many scholars with an anti-nuclear attitude in the past started to appreciate our efforts and achievements after attending a few emergency readiness exercises or outage safety inspections in nuclear power plants. We are not afraid to open our house for outside scrutiny because we have had our house clean and tidy. Due to the collective hard work by many of you, major performance indicators such as the capacity factor (88%), scram rate (.17/unit), numbers of operation violation events (1/unit), plant collective dose (1.3 man-Sv/unit), production rate of solidified radwaste (110drums/unit) etc. are among the top performers of the world.

Now we have demonstrated to the public we can provide a safe and trustworthy nuclear service. We have facilitated an environment of transparency for which we provide instant plant operational data and area radiation monitoring records at the website for public scrutiny. We may have achieved “awareness of safety in mind 安心” but not yet

completely “let-go in mind 放心”. I would propose to further enhance our professional trainings to a level that we can all directly communicate the context of nuclear safety to the public comfortably. This is not an easy task, as we need to know what we do thoroughly and explain to people in plain and clear words. This involves trainings of technical, interpersonal and intrapersonal levels. I will first encourage AEC inspectors to receive root-deep technical training at the Institute of Nuclear Energy Research as the first step.

In parallel, I will seek to enhance the functional effectiveness between the regulator and the nuclear plant operators. You must agree with me that each have a legitimate function to perform and thus each should be assertive to their respective positions and professional expertise. On the common platform of maintaining a safety system and culture, communication and decision-making can be very solid and effective. In the past there are numerous occasions that each talk with a tone of distance, and in the pattern of hide-and-seek. This has produced harm to public trust on nuclear safety. I would called upon all of us to come over this cruder so that we can be true partners in terms of providing 放心 to the public.

Now I would like to turn to our future prospects. I am confident that the public has high expectation on us. Very simply we are expected to keep up with the good work on the safe operation of nuclear power plants and on other civilian nuclear services. More visibly we must complete the construction of the 4th nuclear plant and produce electricity to our grid. In a professional manner we ought to finish what we have promised at the beginning and with a performance and safety level higher than before.

Secondly, we ought to seek solutions to issues that are vital to the continuing safe operation of our nuclear power plants. The dry storage of spent nuclear fuel is one and the construction of a low-level radwaste repository is another. These two tasks are so important to the safe and continuing operation of nuclear power plants that I would place strong words on the necessity of developing reliable and fully controllable options in Taiwan. I am proud to mention the excellent performance by a researcher in INER who foresaw the needs to reduce the volume of low-level radwaste and invented the High Efficiency Solidification Technology (HEST) that has a proven record of reducing our PWR

solidified waste production down to less than 17 drums in a year. I am equally expecting that the developing of a plasma melting system under intensive research in INER will provide another quantum jump in the volume reduction goal on low-level radwaste.

Today is an occasion for many of us in Taiwan devoting to the nuclear and related industries and discipline to get together. I know there will be three technical sessions on nuclear technology, waste management and nuclear medicine for paper presentations and discussions. A panel discussion by many distinguished guests on “The environmental Issues and Sustainable Energy Development in Taiwan” will be held. The three sessions are composed of the majority of nuclear activities in Taiwan. The panel theme is also very timely as our national energy conference will be held in less than two months and INER has initiated many research programs on new and renewable energy in the past two years. I have high expectation that the discussion will generate thoughts and ideals that will be enlightening and useful.

Finally, I would thank all of you coming to this event and paid attention to my speech. I wish you all having a resourceful day in the Forum and to our foreign guests a very pleasant stay in Taiwan. Thank you all.