

TAB 18: NUCLEAR REGULATORY COMMISSION

NUCLEAR SAFETY COOPERATION

U.S. NUCLEAR REGULATORY COMMISSION

NATIONAL NUCLEAR SAFETY ADMINISTRATION CHINA STATE ENVIRONMENTAL PROTECTION ADMINISTRATION

PROTOCOL ON COOPERATION IN NUCLEAR SAFETY MATTERS

AGREEMENT:

The Protocol between the Nuclear Regulatory Commission of the United States of America and the State Scientific and Technological Commission of the People's Republic of China on Cooperation in Nuclear Safety Matters was originally signed in 1981 and renewed two times. With the implementation of the US-China Agreement for Cooperation on the Peaceful of Nuclear Energy on March 19, 1998, the NRC and its Chinese counterpart, the National Nuclear Safety Administration (NNSA), under the China State Environmental Protection Administration (SEPA), signed an expanded Protocol on Cooperation in Nuclear Safety Matters in September 1998. A renewal of the Protocol was signed by NRC Chairman Nils J. Diaz and SEPA Vice Minister Wang Yuqing in Beijing, April 23, 2004.

BILATERAL OBJECTIVES:

Within the limits and availability of resources, and consistent with U.S. Government policies and NRC priorities, the NRC will:

- Foster an understanding of the U.S. approach to nuclear safety
- Assist in the development of sound regulatory and safety practices in China's civil nuclear power reactor program, and areas including radiation protection and nuclear material safety
- Exchange publicly available information on nuclear power reactor safety, radiation protection, nuclear material and waste handling and storage
- Share lessons learned from the U.S. nuclear power program
- Offer the regulator training opportunities

ACTIVITIES COMPLETED:

During the years 2002 and 2004, safety exchanges took place under the terms of the Protocol at a minimal cost to NRC. The activities included:

- NRC provided technical lectures on power reactor design review, construction and operation inspection, plant operation, radiation protection and nuclear materials safety.
- NRC provided copies of its regulatory guides and standards, training information and other publicly available safety information.
- October 2002, NRC Chairman Richard Meserve, visited China on October 17-25, 2002. The purpose of his visit is to present an address at the opening plenary of the 13th Pacific Basin Nuclear Conference (PBNC) in Shenzhen, and meet with Government, industry, and utility safety representatives to discuss regulatory matters, and make several technical site visits.
- April 23-26, 2004, NRC Chairman Nils J. Diaz visited Beijing to meet with the NNSA and sign the renewal of the NRC-NNSA Protocol.

UPCOMING ACTIVITIES:

NRC has an active Assignee Program that places fellow regulators at NRC on a temporary 6-12 month basis for hands-on training.

- Mr. Jiang Hong Beijing Institute of Nuclear Engineering (does contract work for the National Nuclear Safety Administration (NNSA)); scheduled to begin in March 2004, the 12-month temporary assignment in the Division of Engineering, Office of Nuclear Reactor Regulation; Hong will work on regulatory requirements for digital instrumentation and control systems
- Mr. Xiaoqui Chen Nuclear Safety Center; scheduled to begin July 2004, 6 month assignment in the Office of Nuclear Materials Safety and Safeguards, for training in the regulation and inspection of material licensees and source registration and tracking.
- Mr. Xinhua Liu Nuclear Safety Center, scheduled to begin in July 2004, 6 month assignment in the Division of Waste Management, for training in the decommissioning process.

The NRC and the NNSA are currently exploring the possibility of drafting a cooperative research agreement under the terms of the NRC-NNSA Protocol. It would allow NRC access to the fuel burn-up data of the high-temperature gas-cooled reactor (HTGR) located at the Institute of Nuclear Energy Technology (INET). In exchange, NRC would invite NNSA to participate in the NRC Code Applications and Maintenance Program (CAMP) and Cooperative Severe Accident Research Program (CSARP).

In July 2004, the NRC will present a workshop in Beijing on the NRC's design certification process. This workshop was requested by NNSA during NRC Chairman Diaz visit in April 2004.

SCIENTIFIC / FOREIGN POLICY:

The safety documents, lectures, and on-the-job training opportunities provided by the NRC have assisted the Chinese nuclear regulator to develop a clearer understanding of nuclear safety (culture) as it is practiced in the U.S.

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