

Press Release

On the Establishment of the Nuclear Risk Research Center

October 1, 2014

Central Research Institute of Electric Power Industry

In the interest of creating a center for research and development necessary for utilities to improve safety of nuclear power on their own initiative, the Central Research Institute of Electric Power Industry (CRIEPI; Masahiro Kakumu, President; Head Office in Chiyoda-ku, Tokyo) **established the Nuclear Risk Research Center (NRRC) on October 1.**

In light of the Fukushima Daiichi Nuclear Power Station accident, **it is vital to continually strive for even higher levels of safety in the use of nuclear power generation.** To that end, **it will be necessary for nuclear utilities themselves to go further than simply meeting the regulatory requirements and to pursue sustained commitment to reduce nuclear risk.**

To reduce risk, it will be imperative to implement appropriate measures to counter natural disasters involving large earthquakes, massive tsunamis, and tornados, as well as other events that are of **low frequency, yet have the potential to cause significant damage.** Similarly important are measures to mitigate any damage if an accident does occur. For that purpose, it will be necessary to predict the progression and behavior of accidents at power stations that have been caused by such events, and formulate countermeasures. Moreover, because the focus is on events that are of low frequency and involve substantial uncertainty, it is necessary to verify the effectiveness of measures based on **comprehensive risk assessments utilizing PRA and other probabilistic methods.**

In the interest of providing a nucleus for research and development aimed at acquiring technologies and expertise for the activities outlined above, **CRIEPI has established the NRRC to more effectively harness the human resources and research infrastructure in related fields it has collected to date.**

Further, in the interest of **fostering a cycle that combines research and development with utilization of results together with the electric power industry and the broader industrial sector,** CRIEPI has created a framework for joint studies by various levels of the management hierarchy, including the Chief Nuclear Officers Conference.

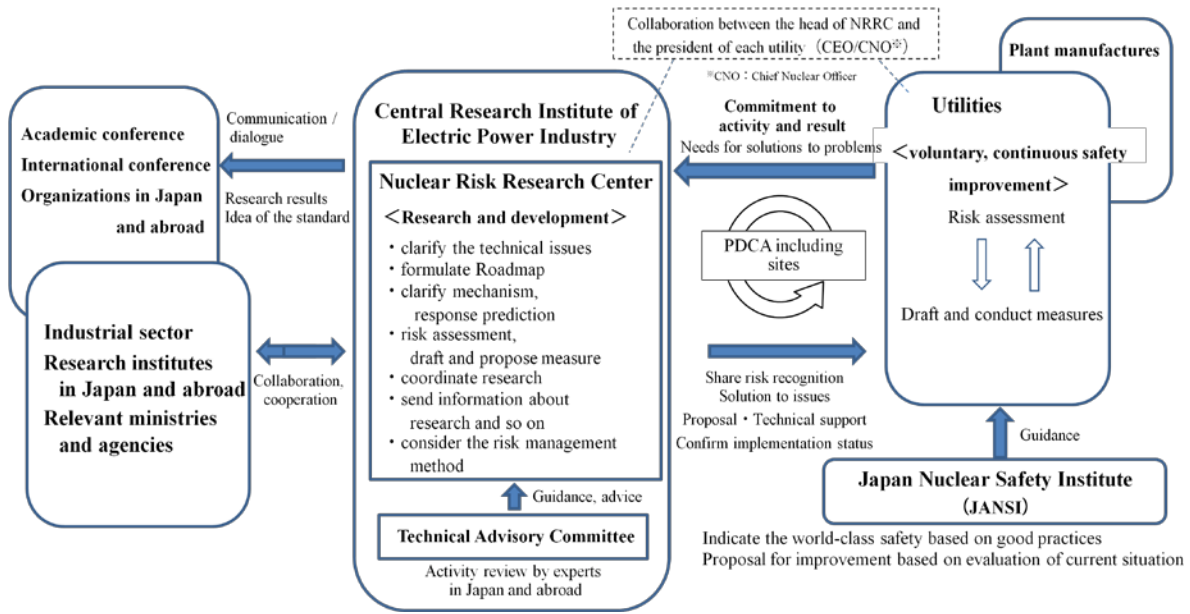
Additionally, **in view of the importance of strengthened international cooperation** within the NRRC's activities, **CRIEPI has invited world-class authorities of nuclear safety with strong leadership experience to serve as the NRRC's executives.**

Dr. George Apostolakis will assume the position of the Head of the NRRC. He is a Professor Emeritus at the Massachusetts Institute of Technology, a former member of the U.S. Nuclear Regulatory Commission (NRC), and a scholar elected to the U.S. National Academy of Engineering in 2007 for his outstanding accomplishments in the field of probabilistic risk assessment.

Dr. Richard A. Meserve will serve as Executive Advisor to NRRC. He is a former Chairman of the NRC, a former President of the Carnegie Institution for Science, and since 2004 has served as Chairman of the International Nuclear Safety Advisory Group (INSAG), which is chartered by the International Atomic Energy Agency (IAEA).

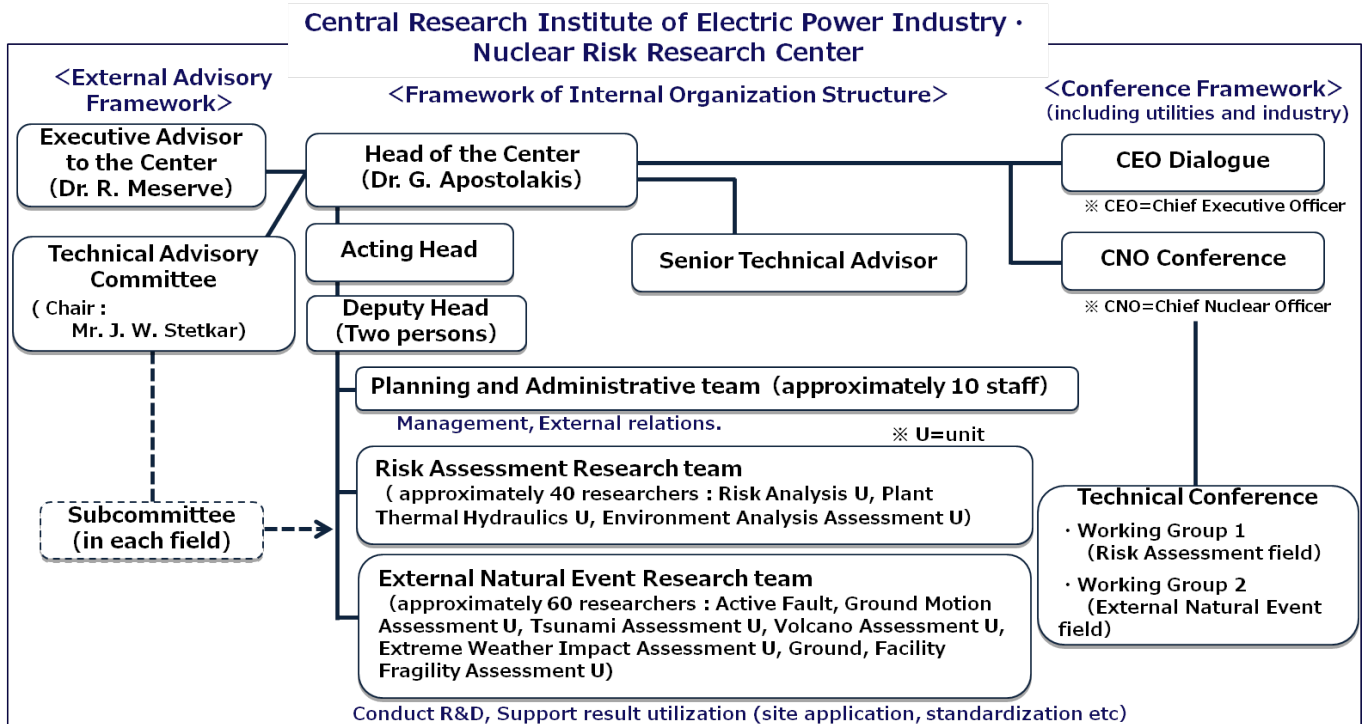
Mr. John W. Stetkar will chair the Technical Advisory Committee, which will be composed of leading experts from Japan and around the globe. He is currently Chairman of the NRC's Advisory Committee on Reactor Safeguards (ACRS) and an internationally recognized authority on the assessment of risk and reliability of nuclear power plants.

The Activities of Nuclear Risk Research Center



Outline of the Organization

- Name : Nuclear Risk Research Center
- Location : Central Research Institute of Electric Power Industry, Otemachi (Chiyoda-ku, Tokyo)
(Research activities will be conducted mainly in Abiko and Komae)
- The number of members : Approximately 110



<Explanation of Technical Word>

※¹ 「PRA : Probabilistic Risk Assessment」 :

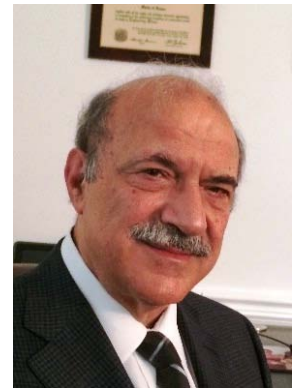
Probabilistic Risk Assessment is a method to show the degree of safety by making a comparison of "Risk". The "Risk" is calculated by multiplying frequency and impact of an event which are evaluated quantitatively in consideration of every possible accident in nuclear facilities.

■ **Nuclear Risk Research Center, Brief Summaries of Executives**

The Head: Dr. George Apostolakis

Date of Birth: 1946. 4

- 1969: Diploma, Electrical Engineering,
National Technical University, Athens, Greece
- 1970: M.S., Engineering Science,
California Institute of Technology
- 1973: Ph.D., Engineering Science and Applied Mathematics
California Institute of Technology
- 1974-1995: Professor, University of California, Los Angeles
- 1995-2010: Professor, Massachusetts Institute of Technology
- 1995-2010: Member (2001-02: Chairman) Nuclear Regulatory Commission (NRC)
Advisory Committee on Reactor Safeguards (ACRS)
- 2007: Member, National Academy of Engineering (Probabilistic Risk Assessment)
- 2010-2014: Commissioner, Nuclear Regulatory Commission (NRC)
- 2010-Present: Professor Emeritus, Massachusetts Institute of Technology



※Reference

- Editor-in-Chief, *Reliability Engineering and System Safety*, An international Journal, ElsevierScience Publishers, England (1986-2010)
- Established the International Conference on Probabilistic Safety Assessment and Management (PSAM) (1991)
- Attend the Japan-US round table on probabilistic risk assessment (2014.2)

The Executive Advisor: Dr. Richard A. Meserve

Date of Birth: 1944.11

- 1966: B.A. Engineering, Tufts University
- 1975: J.D., Harvard Law School
- 1976: Ph.D., Applied Physics, Stanford University
- 1977-1981: Legal Counsel to President Carter's
science and technology advisor
- 1981-1999, 2004-Present: Covington & Burling LLP
- 1999-2003: Chairman, Nuclear Regulatory Commission
- 2003-2014: President, Carnegie Institution for Science
- 2004 –Present: Chairman, IAEA International Nuclear Safety Group (INSAG)
- 2009-2012: Member, Blue Ribbon Commission on America's Nuclear Future



※Reference

- invited to 5th session of the National Diet of Japan Fukushima Nuclear Accident Independent Investigation Commission (2012.2)
- Attend the 8th session of the Investigation Committee on the Accident at the Fukushima Nuclear Power Stations of Tokyo Electric Power Company (2012.2)
- Appointed to the International Advisor of Nuclear Regulation Authority (2012.12-)

The Chairman of “Technical Advisory Committee”: Mr. John W. Stetkar

Date of Birth: 1951.3

- 1973: B.S., Electrical Engineering,
Massachusetts Institute of Technology
- 1976: M.S., Nuclear Engineering/Environmental Engineering
Massachusetts Institute of Technology
- 1978-1980: Shift Supervisor, Zion Nuclear Station
- 1980-1993: Senior Consultant, PLG, Inc.
- 1993-2001: Associate Senior Consultant,
PLG, Inc. and EQE International, Inc.
- 1993-Present: Principal, Stetkar & Associates
- 2007-Present: Member (Current Chairman), Nuclear Regulatory Commission (NRC),
Advisory Committee on Reactor Safeguards (ACRS)



※Reference

- Internationally recognized expert in the fields of risk assessment, reliability analysis, and resource optimization
- Has had lead technical responsibilities in more than 15 major nuclear power plant risk assessment
- Has served on technical review committees for more than 20 other risk assessment including the U.S NRC Reactor Risk Reference Study NUREG-1150.

< Please refer to the Press Release published on June 13, 2014 regarding the content of the research conducted by Nuclear Risk Research Center >

For inquiries, please contact us here

https://criepi.denken.or.jp/cgi-bin/en/inquiry/inquiry_entry.cgi