

Study Mission on Nuclear Power Generation (NPG) Plant Safety Inspection–Stress Tests in the EU Nations Summary Report

The NPG Engineers forum of Japan Engineers Federation (JEF) dispatched the study mission on NPG Plant Safety–Stress Tests in the EU nations last September 11th through September 18th 2011.

■ Outline of the Study Mission

1. Theme : Study Mission on NPG Plant Safety Inspection–Stress Tests in the EU nations
1. Duration : September 11th – September 18th 2011 (8 days)
2. Chairman : Muneo Morokuzu, Project Professor, Graduate School of the Public Policy, the University of Tokyo, Chairman of the Sub Committee of the Atomic Energy Society of Japan for the Society and Environment.
4. Vice Chairman : Norio Terada, Chief Engineer of Reactor, General Manager, Administration and Strategy Nuclear Power Division, the Kansai Electric Power, Co., Inc..
5. Sponsor : Japan Engineers Federation (JEF)
6. Secretariat : Asia Technology Transfer Organization, Inc. (ATTO)
7. Number of Participants : 15
8. Participating Organizations and Companies :
The University of Tokyo, The Atomic Energy Society of Japan, The Central Research Institute of Electric Power Industry, Japan Electric Information Center, Inc., Institute of Nuclear Safety System, Inc., The Kansai Electric Power Co. Ltd., Nuclear Fuel Industries, Hitachi–GE Nuclear Energy, Ltd., Mitsubishi Electric Corporation, Japan NUS Co. Ltd., ESI Japan, Ltd., The Japan Atomic Power Company, Mitsubishi Heavy Industries, Ltd., Toshiba Corporation, Japan Engineers Federation

■ Purpose

On July 6th, 2011, the Japanese Government announced the plan to implement Stress Tests for nuclear reactors, based on new procedures and rules, using as a reference point the stress tests that have been used in European nations.

This involves a two tiered stress tests. The first stage test is targeted at the reactor currently halted due to regular checks and maintenance and is ready to be restarted. It will assess tolerance for severe earthquake and other natural phenomena. The restart of the nuclear reactor will depend on the results. The second stage test will make a comprehensive safety assessment of all Japan's reactors.

Assessment details are in the process of being developed under the direction of nuclear safety institutes. According to draft proposals made available to the public on July 15th, these tests will assess resistance to severe earthquakes and other events more extreme than those for which they were designed to endure. The second stage of tests will make a comprehensive safety assessment of all Japan's reactors.

In light of this situation, this study mission was dispatched to the EU nations in order to learn first hand the present status of stress tests and how they are being implemented as to help guide its

Pre-Study Trip Gathering

Tokai University Hall / Friday September 2nd, 2011

Prior to the trip a meeting was held for the members to become acquainted with each other.



Study Trip Day 1

Tokyo Narita Airport / Sunday September 11th, 2011

Briefing in a waiting lounge at Tokyo Narita airport prior to departure. Bon Voyage!!



Study Trip Day 2

Visit to Hinkley Point B Nuclear Power Station / Monday September 12th, 2011



Study Trip Day 3

Visit to HSE Office of Nuclear Regulation (ONR) / Tuesday September 13th, 2011



Dr. Mike Weightman, HM Chief Inspector of Nuclear Installations and Professor Morokuzu and members of the group. Dr Weightman visited Japan as a leader of the IAEA investigative group of Fukushima Daiichi Nuclear Power Plant Accident.

Study Trip Day 4

Visit to *Autorite de surete nucleaire ASN (The French Safety Authority)* / Wednesday September 14th, 2011



Mr. Philippe Jamet, Commissioner (second from left)



Study Trip Day 5

Visit to *Électricité de France (EDF)* / Thursday September 15th, 2011



Mr. Olivier Bard, Masters of Engineering, MBA, Chief of Staff of the Executive VP EDF Group and Mr. Simon Holland.

Continued Day 5

Visit to *European Commission (EC)* / Thursday September 15th, 2011



Chairman, Professor Morokuzu with Mr. Heinrich Hick, EC Cabinet Member (front and center) and Mr. Peter Faross, Director, Nuclear Energy

Study Trip Day 6

Visit to *Federal Ministry for Environment, Nature Conservation & Nuclear Safety (BMU)* / Friday September 16th, 2011



**Dr. Peter Michael Hertrich, General and Fundamental Aspects of Reactor Safety, Nuclear Safety Codes and Standards, Multilateral Regulatory Cooperation and Professor Morokuzu (front & center)
Dr. Thomas Schimpfke, Head of Plant Concepts Department, Reactor Safety Analyses Division,
Dr. Reinhard Stuck, Head of Reactor Safety Analyses Division (back & center)**

Study Trip Day 7 & 8

Return to *Tokyo Narita Airport* / Saturday September 18th, 2011

The weather was beautiful throughout the trip, and, everything went smoothly and overall the trip concluded with much success!