

**OECD/NEA INTERNATIONAL WORKSHOP on
IMPACT OF YEAR 2000 ON THE NUCLEAR INDUSTRY**

Computer Year 2000 Problems in Japanese Nuclear Facilities

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Contents

- 1. MITI's Activities to Electric Power Companies (1)**
- 2. Government Y2K Action Plan**
- 3. MITI's Activities to Electric Power Companies (2)**
- 4. Review Committee on Y2K Problems in NPP**
- 5. Status of Activities performed by electric power companies**
- 6. Conclusion and continuous effort**

1. MITI's Activities to Electric Power Companies (to September 1998)

- (1) 1997-12 : to send an administrative letter of the Minister of MITI to the Federation of Electric Power Companies to heighten an awareness of the Y2K problem,**
- (2) 1998- 4 : to hear Y2K Program and its status from selective electric power companies**
- (3) 1998- 6 : to investigate the status of the activities performed by electric power companies through questionnaire**
- (4) 1998- 7 : Phase-1 Report from electric power companies**
- (5) 1998- 8 : to hear the details of Y2K Program**
- (6) 1998- 9 : Issuance of National Y2K Plan**

2. National Y2K Action Plan

- **National Y2K Action Plan was issued at September 1998, which was established by the initiative of Prime Minister.**
- **Contents of Action Plan**
 - **Promoting Y2K awareness**
 - **Measures to be taken by the Central Government**
 - **Measures for the Private Sector**
 - **Measures for the Private Sectors of Particular Importance**
 - **Establishment of a System to Provide Information**
 - **Follow-up to the Action Plan**

(Internet : <http://www.miti.go.jp> (Japanese, English))

3. MITI's Activities to Electric Power Companies

after National Y2K Action Plan was issued.

- **The MITI asked Electric Power Companies**
 - **To conduct voluntary overall check-ups,**
 - **To develop contingency plan, and**
 - **To report their progress quarterly,**
- **Observation through Review Committee on Year 2000 Problem in NPP**

4. Review Committee on Computer Year 2000 Problems in NPP

Purpose :

- 1) To assure the completeness of the activities addressing the Y2K problem performed by the electric power companies.**
- 2) To maintain safe and stable continuous operation of NPPs.**

• Members :

- Senior Researchers of I&C Engineering (Academy)**
- Experts of Computer Engineering (Industrial Organization)**
- Senior Inspectors (MITI)**
- Experts of Safety Engineering (NUPEC)**

• Review Method :

- Document-base audit for typical several NPPs**

Activities of Y2K Review Committee (continued)

- **Review scope : Systems and components important to safety and those ones important to continuous operation of NPP.**
 - **Class–1 I&C systems and components**
(Ex) Reactor Protection System
 - **Class–2 I&C systems and components**
(Ex) Those systems providing post-accidental important parameters
Those control systems that operate safety-related system
 - **Class – 3 I&C systems and components and others**
(Ex) Reactor Control System (Feedwater control, etc.)
Process computer

Based on “Review Criteria of Safety Classifications in Japanese NPPs”

Activities of Y2K Review Committee (continued)

- **Review Items**
 - **Inventory List**
 - **Selection of date-susceptive item (method, result)**
 - **Impact of false data-handling**
 - **Method and period of remediation**
 - **Method of validation test**
 - **Quality assurance of Y2K program**
 - **Contingency plan**

Activities of Y2K Review Committee (continued)

- **Schedule:**
 - **1999- 2: Selection of the NPP reviewed by the Committee**
 - **Selection Criteria:**
 - **Reactor type and prime contractor,**
 - **Extent of use of computer-based system**
 - **Y2K progress**
 - **1999- 3: Review of the Y2K activities in selected NPP**
 - **1999- 4: Review of contingency plans (Review method will be determined)**
 - **1999- 5: Evaluation Report**
 - **The results will be made public, as well as to be reported to the Nuclear Safety Commission.**
 - **1999- 6: Follow-up activity if necessary**

5. Status of the Activities performed by Electric Power Companies (Based on their Progress Report)

(1) Number of Commercial NPP : 51 units in 10 Electric Power Companies

(2) General Observations

- **Organization addressing Y2K Problems headed by Vice-President**
- **Information Disclosure through Internet Homepage (in Japanese)**

(3) Evaluation of computer-based systems used in NPP

- **No Problems in Systems for Control Function**
- **Some Date-susceptive Systems for Information Display Function**

Status of the Activities by Electric Power Companies (continued)

(4)Results and Status as of Jan.1, 1999

- **17 Units completed their Y2K Readiness Program**
- **About 81 percent of the date-susceptive systems important to safety and continuous operation have been completed. (51 units)**
- **90 percent of these systems is supposed to be completed by this July.**
- **The remaining 10 percent of these systems will be completed by the end of this year.**

Status of the Activities by Electric Power Companies (continued)

(5) Future Concerns

- **To complete remediation in few plants whose corrective activities are scheduled to be done after this July owing to the scheduled outage of the plant.**
- **To develop the company-specific contingency plans for the Y2K problem by this July.**

6. Conclusion and Continuous Effort

- **The MITI established Y2K Review Committee in order to assure the adequacy of Y2K activities performed by electric power companies.**
- **The MITI's present evaluation**
 - **The activities addressing the Y2K problem in electric power companies have been carried out on schedule, and**
 - **The MITI also has a confidence that those remaining activities will be completed prior to January 1, 2000.**
- **The MITI will continue to observe the activities in electric power companies continuously till the end of this year**