

Mitsubishi Electric Corporation

Power Distribution Systems Center (56th Peer Review)

NSnet Div. 56th Peer Review of Mitsubishi Electric Corporation, Power Distribution System Center, conducted over three days period starting January 23, 2007, was completed. A summary of the review is shown below.

1. Reviewed Establishment (Location)

Mitsubishi Electric Corporation, Power Distribution Systems Center, located in Marugame-city, Kagawa Prefecture.

2. Overview of the establishment and targets of review

Mitsubishi Electric develops designs, manufactures, installs and maintains control devices and turbine generators not only for pressurized water reactor (PWR) power plants, but also for advanced reactors and nuclear fuel cycle.

The Center began production in 1979 as Control Center Marugame Factory, a factory located in Kobe, and went independent in 1981 as Marugame Center. Following this move, in order to more efficiently combine the manufacture of power distribution system equipment and system development, in 1997 the center was reorganized and renamed as Power Distribution Systems Office. Furthermore, since the center acts as engineering center for constructing power distribution systems, its name was changed to Power Distribution Systems Center in 2005 as it remains today.

The Center produces switches under 72kV (gas cutoff switches, switch gears, monitoring control devices, vacuum circuit breakers, gas circuit breakers, control centers, power distribution monitoring control systems, etc.). As far as nuclear power is concerned, the Center mainly manufactures products related to the maintenance of existing power plants. However, as far as new plants are concerned, for the first time in 12 years the Center is manufacturing and delivering products for Tomari Nuclear Power Plant Unit 3 of Hokkaido Electric Co., Ltd. Over recent years the percentage of nuclear power related products delivered has risen from 5% to approximately 10%.

3. Members of the review team, and the method of review

Review leader : Japan Nuclear Technology Institute (JANTI)

Reviewers : Nippon Nuclear Fuel Development Co., Ltd, Global Nuclear Fuel-Japan Co., Ltd and JANTI

Review Area

(Group A) : Organization/ Administration and Human Error Prevention

(Group B) : Education/Training and Design/Manufacturing

4. Results of this review

(1) Main Conclusions

It is recognized through organization and workers that the company's role is to improve nuclear power safety by providing products of good quality and high reliability that can meet the demands of customers and the market. Review team interviewed the superintendent of the Center, and confirmed what actual activities are being implemented based on this policy and what the implementation status of those activities is. And team reviewed the activities of frontline personnel through interviews with managers and workers, on-site observation and by reviewing documents. Through this review it was confirmed that the plant was engaged in activities to ensure nuclear power product quality and safety under the strong leadership of Center management.

(2) Good Practices and Suggestion for Improvement

This Peer Review selects good practices that should be widely introduced to other NSnet members and within the nuclear power industry. Meanwhile, several proposals were made that would be useful in further improving safety culture

A brief look at Good Practices *1 and Suggestions for improvement *2 follows below.

a. Good Practices

Fields of review	Summary of Good Practices
Organization/Administration	Making production more efficient, improving quality, and ensuring labor safety through daily patrols by managers
Design/Manufacturing	An approach to improve quality and productivity and convey work skills by implementing one-worker production
Human Error Prevention	Activities to prevent on-site mistakes at the distribution board through hands-on training

b. Suggestion for Improvement

Fields of review	Summary of Suggestion for Improvement
Organization/Administration	More effective utilization of activities to improve the results of diagnosing work site health and safety climate
Education/Training	Clarification of basis for revision by indicating the non-conformity countermeasure sheet number for work standards

*1 : Good Practices

Information on good practices incorporating appropriate, effective, and unique methods into activities to ensure safety should be widely distributed to the members of the NSnet and the nuclear power industry.

*2 : Suggestions for Improvement

After comparing the practices of Mitsubishi Materials Corporation with the best in the nuclear industry, suggestions to improve and enhance safety activities should be implemented to achieve the highest level of nuclear safety.

Even if current activities are equal to or higher than general standards in the nuclear industry, suggestion is taken up in case there is still room for improvement.