The current challenges and good practices of utilities

"ONAGAWA NPS Dose Reduction"

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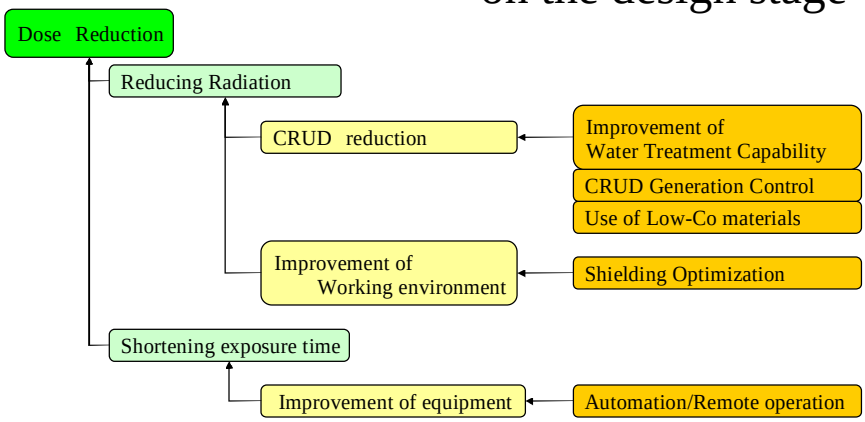
Mr. Wada reported efforts at Onagawa Power Station for reducing radiation exposure. The measures to reduce dose at Onagawa Nuclear Power Station are as follows;

1. Measures for dose reduction on the design stage
2. Clean operations on the construction and the test run stage
3. Continuous dose reduction

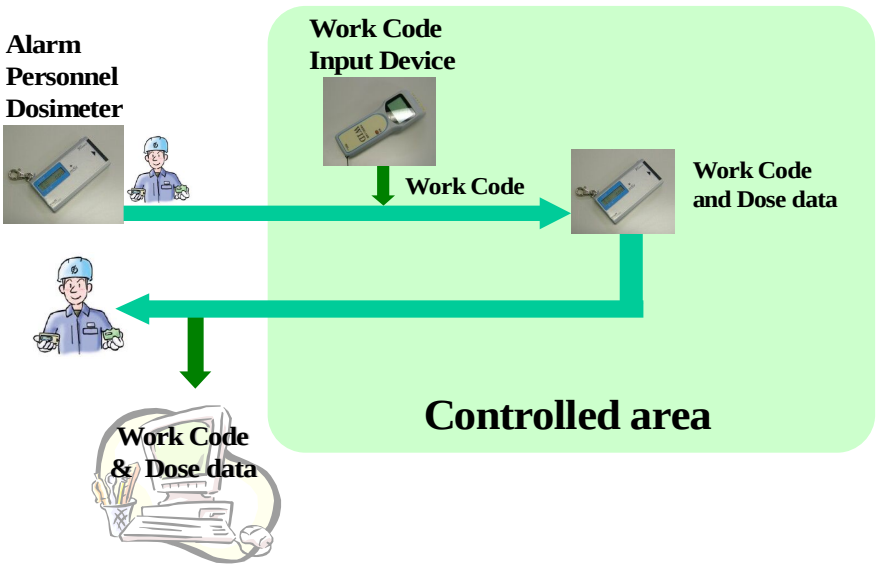
Regarding measures for consecutive dose reduction, personnel radiation dose management was operated according to the type of work by use of APD and check of WCD. Addition to it, radiation control staffs regularly check the area and dust monitor. Water chemistry management is planning to reduce dose rate by reducing the amount of Fe cruds. By water chemistry management, dose rate of PLR pipes of Onagawa NPS maintains extremely low level compared with that of other plants. As the measures for dose reduction during outage, education program for foremen, periodical holding of "HP work schedule meeting", frequent HP patrol, and posting up of the detailed radiation map of D/W area.

Onagawa NPS experienced fuel leak and earthquake in 2005. Regarding fuel leak, it was possible to resume operation by specifying leak point and insert control rod in. Monitoring of offgass monitor and measures to prevent absorption of Iodine were implemented. When the earthquake occurred in August 16, 2005, all reactors from unit 1 to unit 3 were automatically stopped because there was a possibility to excess design base. They stopped for long term for verification of their safety. There was almost no difference in periodical inspection dose rate between before and after the earthquake, and the influence of the earthquake was not found.

1.Dose Reduction Measures on the design stage



3-1.Management of Workers' Dose Data



3-3. Water chemistry

Dose rate of PLR piping of our plants are remarkably low compared to other plants.