

“EDF Main Works and Actuality”

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The state of exposure reduction at nuclear power plants in France and its future prospects will be presented.

The transition of collective dose of EDF’s workers and contractors shows that it peaked in about 1992 and has decreased to about half of that peak recently. The exposure reduction measures that EDF has addressed so far or is addressing now include source term management and source term reduction projects, the execution of action plans for dose reduction, and the update of dose management systems. The source term management includes pH optimization and Zn injection. Zn injection has been executed already at Bugey 2 and 4; Zn injection was established from the beginning at EPR.

The source term reduction project draws up preventive measures such as recontamination prevention and measures for removing hot spots. Estimated dose reduction is about 1 Sv/reactor for the next five years. This project will be executed at Flamaville 1, Chinon 2, Blyas 4, Gravelines 3, and Bugey 2.

Actions for dose reduction include the ALARA approach; it is important to reduce the exposure of the highest dose group and ensure equity. Action plans for specific jobs have been drawn up; they include improving biological shielding, for instance.

As for the update of dose management systems, personal contamination monitors at the exit of a controlled area were changed to those measuring β and γ , and electronic dosimeter systems will be introduced in 2009.

As future issues, we would like to continue to make efforts for collective dose reduction by continuing the cleanup program and Zn injection and for introducing remote monitoring systems and central control rooms into all of the nuclear power plants. We will address exposure homogenization and equity in future and express commitments to radiation protection communities.

