

Fukushima Daiichi Nuclear Power Station (1F) was hit by the big earthquake and tsunami, which caused the station black out and subsequent loss of cooling functions for reactor and spent fuel pools (SFPs). Consequently the fuels were damaged, hydrogen explosion blew off top of the reactor buildings and radioactive materials were released to the atmosphere and the ocean.

Tsunami and power loss caused many difficulties of monitoring, dose management, and radiation protection of workers. For example, the radiation management system was down and about 5,000 Alarm Pocket Dosimeters (APDs) and their battery chargers could not be used. Due to the insufficient number of APDs, one representative of each working team had a dosimeter under the limited conditions.

Through the accident, we got following lessons learned.

- (1) Reinforcing monitoring posts
- (2) Preparing more radiation protection equipments
- (3) Establishing emergency access control center
- (4) Education and training of radiation protection