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- The atmospheric dispersion of radioactive materials and the resulting radiation dose were assessed for a hypothetical accident at the Zaporizhzhia Nuclear Power Plant in Ukraine.
- The release quantities of ^{131}I and ^{137}Cs were assumed to be the same as those released into the atmosphere in the Chernobyl nuclear accident.
- The evaluation utilized atmospheric dispersion and dose assessment models, both of which are key components of the Radiological Accident Preparedness System in Korea (RAPS-K) developed by the Korea Atomic Energy Research Institute.
- Simulation results showed that radioactive plumes initially moved to the western across Europe, and later, some plumes were transported to the Asia due to westerly winds.
- Dose assessments revealed that effective radiation doses were showed above 1 mSv in certain areas near the Zaporizhzhia plant, while radiation exposure remained below 0.1 mSv across the rest of Europe, Asia, and North America.

