

New Meteorological Measurement Device (Doppler SODAR)

1. About our meteorological measurements

Weather conditions close to the top of the stacks – wind direction, wind speed, and the state of the atmosphere (atmospheric stability) – affect the evaluation of the potential for exposure of the public in the surrounding area when radioactive substances are vented from the stacks.

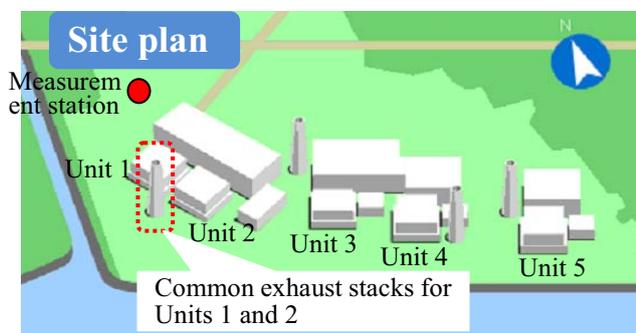
Because of this, we will be conducting measurements of the following four items for a period of one year from June 2013, and will base our evaluation of the potential for exposure of the public on the data obtained.

- ① Wind direction and wind speed in elevated areas affected by venting from the exhaust stacks
- ② Ground wind direction and speed in an area that is representative of the facility (around 10 meters above ground level)
- ③ Amount of solar radiation
- ④ Net radiation

We will basically be conducting meteorological measurements using our existing measurement devices, but because our existing devices are only able to measure wind direction and wind speed at around 100 meters above ground level, we will be employing a new device called a Doppler SODAR to take measurements of wind direction and wind speed from 50 to 100 meters above ground.

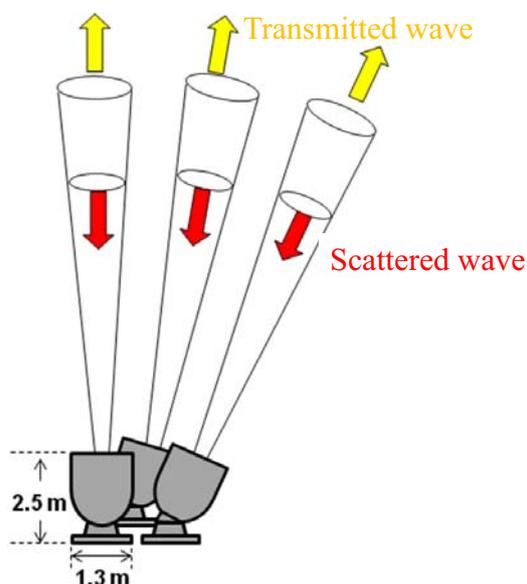
2. About the Doppler SODAR

【Area of installation of Doppler SODAR】



A measurement station used for obtaining meteorological data that is representative of the entire facility is located within the grounds of the power station, and we intend to install the Doppler SODAR on this measurement station.

【Principle of measurement by Doppler SODAR】



The Doppler SODAR that we will be installing is a device that sends out sound waves from three transmitter/receivers, and measures the discrepancy between the frequencies of the transmitted waves and the scattered waves that are received in order to measure wind direction and wind speed in the upper air. The Doppler SODAR makes it possible to measure meteorological conditions in the upper air using a device positioned on the ground.