

II. Research Activities in Fiscal 2007

Principal New Equipments

Assessment facility of electric power apparatus insulation maintenance standard (High-voltage & Electrical Insulation Laboratory)

Purpose:

To perform AC and impulse high voltage tests under various conditions for electric power apparatus and to develop test methods and measuring techniques to evaluate insulating properties of power equipment aged in service.

Outlines:

High voltage tests under various conditions such as fog and rain, can be performed for 6 kV to 500 kV class power equipment. AC 900 kV and 2600 kV impulse voltage is applied to insulators (porcelain and polymeric), transformers, CV cables, GIS and so on. The facility comprises a main (large) cubic test hall of 30 m height, sub (small) cubic test hall of 7 m height and environmental test room.

Specifications:

(1) Construction

Main (Large) hall: 35m x 31m x 30m

Sub (Small) hall: 7m x 7m x 7m

Both test halls are equipped with steam fog generators.

(2) Test transformer

AC high voltage: 900 kV, 2000 kVA, 50 Hz

(3) Impulse voltage generator

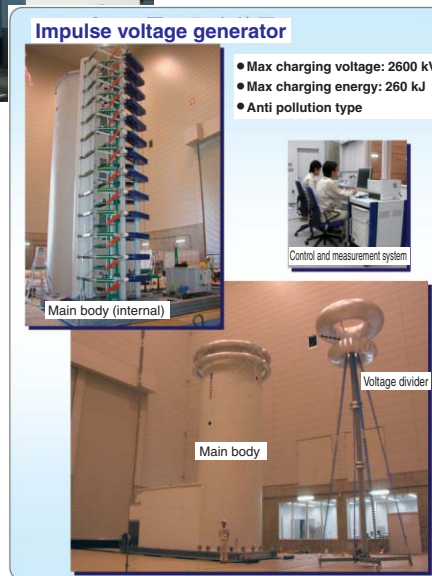
Maximum charging voltage 2600 kV, anti pollution type

Location and Date of Installation:

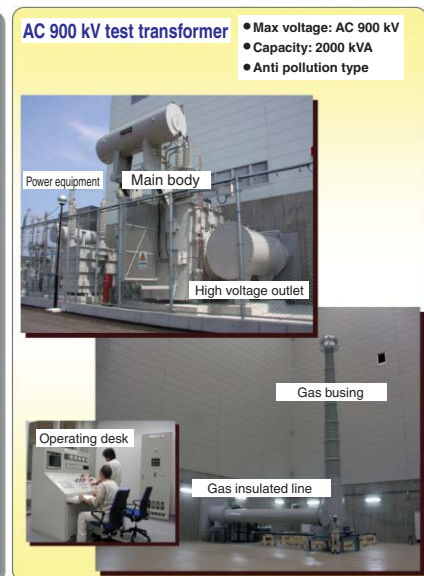
Yokosuka Area, July 2008



External view



AC 2600 kV Impulse voltage generator



AC 900 kV test transformer