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CHINA BUILDS FIRST 600KV OUTDOOR TYPE PULSE VOLTAGE
GENERATOR(U) FOREIGN TECHNOLOGY DIV WRIGHT-PATTERSON
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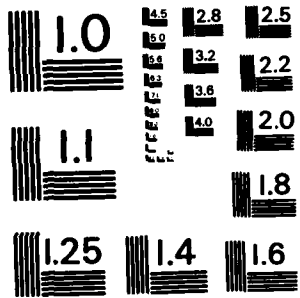
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FOREIGN TECHNOLOGY DIVISION



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CHINA BUILDS FIRST 6000kv OUTDOOR TYPE PULSE
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CHINA BUILDS FIRST 6000kV OUTDOOR TYPE PULSE VOLTAGE GENERATOR

An indispensable piece of test equipment for the development of super-high voltage electrical transmission

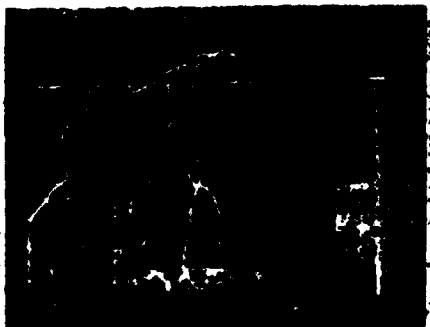
Original report: China's first high parameter outdoor type pulse voltage generator has now been built in Beijing and is being put into service. The building of this equipment fills a gap for China in the area of large high voltage test equipment.

This high parameter pulse voltage generator is a piece of test equipment which is indispensable for the development of super-high voltage electrical transmission. Its function is to simulate lightning waves as well as the operational overvoltage waves which are produced when operating electric power equipment in order to study and evaluate the energy of the lightning strokes and operational overvoltages to which electrical transmission and transformer equipment are exposed.

This equipment was designed and built by the Electric Power Scientific Research Institute of the Ministry of Water Conservancy and Electric Power and is being erected at the high voltage test site of the Qingjiang Institute of Electric Power. Its rated voltage is 6000 kV, energy is 300 kilowatt-seconds, and according to design it is able to withstand earthquakes with an intensity of 8 degrees and can operate normally in inclement weather. The equipment has a total of 20 electrodes, its height is 20.5 meters and its total weight is 73 tons. Its quality of construction has attained a fairly high level and based on measurements the overall slope does not exceed 0.3% (the design

called for no more than 0.5%) and the various clearances inside also all conform to the design's accuracy requirements. Passing the test of the heavy winds of last winter and this spring proves that the structure is reliable. The results of shakedown tests prove that its main circuit and control circuit operate normally, the waveform produced conforms to standards, synchronous performance and output voltage repeatability are good, and in the area of principal technical criteria the equipment has reached or is nearing the level of world advancement. Up to now, this type of equipment in China was all the stationary indoor type, and being subject to the limitations of the space of the site, was not able to satisfy all the test requirements of the 500kV transmission and transformer equipment which was being designed in China. This newly built outdoor type pulse voltage generator is not only able to satisfy the test requirements of the 500-750 kV electric power systems which China is about to introduce, but also is a prerequisite for future test production at a voltage level of over 1000kV.

When it was decided to build this equipment, it was just at the time of the "Four Pests". During the process of construction, the cadres, workers, and scientific and technical personnel of the High Voltage Laboratory of the Institute of Electrical Power and of the trial-production plant held out against the disruptive damage of the "Gang of Four" and during the process of designing and erecting they insisted on a strict scientific approach, meticulous planning and construction and employment of all domestic made materials. After the "Gang of Four" was crushed, they increased their fighting spirit even more, they accelerated the project's schedule and completed construction prior to Mayday of this year and shakedown test have been successful. For the last several months this equipment has been operating normally and its performance has been good.



China's first 6000kV outdoor type pulse voltage generator is now undergoing 20 (illegible) pulse discharge tests.

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